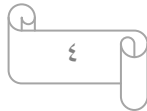


كلية الزراعة

أولاً: الماجستير



قسم الأراضى

دراسات علي تلوث الأراضى والنباتات بالعناصر الثقيلة وطرق علاجه

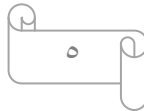
STUDIES ON SOILS AND PLANTS POLLUTION BY HEAVY METALS AND REMEDATION TECHNIQUES

By

Mohamed Saad Abd El-Satar Ramadan

Abstract

To study soils and plants pollution with heavy metals and remediation techniques, five pot experiments were carried out. A surface clay soil sample was collected (٠ – ٢٠ cm) and prepared for experiments. Ni, Cd, Cu and Zn metals were chosen for this study. The first experiment was conducted on the chosen metals (in carbonate form) with different concentrations for each metal. Whereas, the experiments from ٢ to ٥ were conducted in sulphate form (٠.٥% Ni, ٠.٢٥% Cd, ١% Cu and ١% Zn of soil weight). The conducted experiments were carried out in two replicates for each treatment. Chemical amendments (CaCO_3 , CaHPO_4 and $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$) were added in ٠, ٢, ٤ and ٦% for each metal in experiments ٢, ٣ and ٥, respectively. Whereas, $\text{NH}_4\text{H}_2\text{PO}_4$ amendment was added in ٠, ١ and ٢% in experiment ٤. The metals and amendments were mixed well with soil pots. All treatments were planted with barley and fenugreek then irrigated with nutrient solution (experiments ١, ٢, ٣ and ٥) and distilled water (experiment ٤). After ٣٥ days, all plants were totally collected, washed well, dried, weighted and prepared for metal determination. This process was repeated three times. The obtained results showed that metals uptake by barley and fenugreek increased as the metal in the soil increased. Addition of chemical amendments to polluted soil differ in their effects on reducing uptake of Ni, Cd, Cu and Zn metals by cultivated plants, depending on soil pH, type of metal, type of amendment, rate of amendment, plant species and characteristics. Generally, the used amendments in this study reduced DTPA-extractable and uptake (except in some cases) of Ni, Cd, Cu and Zn by cultivated plants in polluted soils. More studies are needed to answer and solve the problems of soils and plants pollution with heavy metals.



**مصير السماد الفوسفوري في أراضي الأرز متأثراً بنظام الري ومعدل
الإضافة**

FATE OF PHOSPHORUS FERTILIZER IN RICE SOILS AS INFLUENCED BY
IRRIGATION SYSTEM AND RATE
OF APPLICATION

By

Alaa El-Deen Mohamed Hassan Khattab

Abstract

The present study aims to identify the fate of phosphorus fertilizer in the rice soils as affected by different irrigation systems and application rates. To achieve this goal, a field experiment was conducted in the farm of Itai El-Barood Research Station with planting rice under three irrigation systems i.e. submergence, saturation, and discontinuous system and three phosphorus fertilizers rate i.e. zero, ٤٥ and ٩٠ kg P_2O_5 fed^{-١}. Data shows that, the content of Fe, Mn, Zn, Cu, Pb and Cd increased with the increasing of irrigation water treatments. The values of available and labile phosphorus decreased in all soil samples compared to the other fractions in soil. Ca-P fraction is the dominant phosphorus fraction in all samples compared to another fractions of phosphorus in soil. Data shows that, increasing phosphorus fertilizer application rate increased rice yield. High grain yield always are found under ٩٠ kg P_2O_5 /fed of added-P but the absolute values were differed.

قسم الإقتصاد الزراعى

دراسة إقتصادية للفاقد الزراعى لمحصول القمح فى محافظة كفر الشيخ

Economic study to the Agricultural Loss of Wheat Crop in Kafr El-sheikh Governorate

By

Mohammed Mehana Abd El- Twab Said Sherif

Abstract

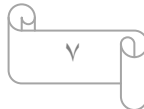
Egypt has been suffering a problem of food shortage .so , the study purpose, can be summarized as follows : s

- a- Identifying the scientific meaning of wheat loss.
- b- Measuring the trend of wheat loss in Egypt during the period of ١٩٩٢ - ٢٠٠٦.
- c- Estimating the lack of technical efficiency of the traditional fields resulting in a form of wheat loss .
- d- Estimating the lack of price efficiency or the price inefficiency of factor inputs in the traditional fields compared with the extension fields .
- e- Evaluating the national loss of the input – output values when the study results are generalized.

To achieve the study purpose, a primary data through a questionnaire as well as secondary data from several sources were utilized. Fourteen non extension (traditional) and fourteen extension fields, were taken into considerations in Kafr El-sheikh governorate. This assures that the soil , as well as the location difference are negligible.

The collected data were tabulated and analysed. Statistical criterea such as t, f, R^2 are utilized to select the estimated equations using the Ordinary least squares (OLS) technique. Analysis of variance (ANOVA) was also used to test differences of input – output values.

- f- The study comes in three chapters. in addition to the introduction, summary and references.
- g- The introduction has dealt with the study purpose, study problem, and methodology.
- h- First chapter presents sample as well as the study literature review. The literature review has decomposed into two sections, the first section has dealt with the pre harvest wheat loss, While the second section has dealt with the post harvest wheat loss.



دراسة تحليلية للأئتمان الزراعي والمزرعي في مصر

Analysis study of Agricultural Credit and Plantation in Egypt

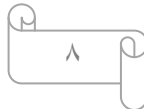
By

Shaker EL sayed El sayed EL sharkasy

Abstract

The agriculture sector in Egypt is considered one of the important economical constructs as it saved the nutritious and garmental needs to satisfy the increasing needs for inhabitants as well as the materials needs for many industries that depend on the agricultural production.

Hence this study focus mainly or reading the present situation of agricultural credit and financial policy. besides focus on the effect of the economical changes on the Egyptian credit agricultural sector in addition this study focus on realized payment rates and collecting the agriculture debts in both the farming and agricultural levels "standards" The research problem is that the process of borrowing is considered a problematic issue and involves many obstacles the farmers face while borrowing from different financial resources with in the present credit policy, besides being the bank neglecting and doesn't take into consideration loans as therein no payment period and the increasing interesting .



اقتصاديات تدوير المخلفات النباتية والحيوانية بمحافظة كفرالشيخ
ECONOMICS OF RECYCLING ANIMAL AND PLANT RESIDUALS IN KAFR EL-SHEIKH GOVERNORATE

By
Mohamed Abdel-Hameed Ahmed AL-Demeery

Abstract

The study aimed at analyzing the income, the costs, and the profitability of the small agricultural projects which are based on the recycling of plant and animal residuals because these small projects contribute to limit the unemployment level in the country, thus realizing the economic, social, and environmental outcome of these projects. The study comes out with the following important results:

- ١- The projects of recycling plant residuals in Kafr El-Sheikh achieve a positive net profit level from the economic point of view. They also protect the environment from pollution. The profit level reaches ٣٩٢٠ pounds in making compost out of rice straw in Al-Hamul District and Sidi-Salem District respectively. The profit reaches ٥٨٠٤ & ٣٠٥٢ pounds in making compost out of cotton sticks in Al-Hamul District and Sidi-Salem District respectively. The profit reaches ٧٩٠٠ & ١٥٩٦٠ pounds making silage out of the maize sticks in Al-Hamul District and Sidi-Salem District respectively. The profit reaches ٤٩٦٤ & ٢٨٦٩ pounds in making feed out of rice stairs in Al-Hamul District and Sidi-Salem District respectively.
- ٢- The profit/costs percentage reaches ١.٥٨ & ١.٥٨ pounds in making compost out of rice straw in Al-Hamul District and Sidi-Salem District respectively. It reaches ١.٦١ & ١.٤٠ pounds in making compost out of cotton sticks in Al-Hamul District and Sidi-Salem District respectively. It reaches ١.٥٤ & ١.٥٦ pounds making silage out of the maize sticks in Al-Hamul District and Sidi-Salem District respectively. It reaches ١.٥٨ & ١.٥٣ pounds in making feed out of rice stairs in Al-Hamul District and Sidi-Salem District respectively.
- ٣- By analyzing the results of the research, it becomes clear that the change in net income is more affected by the decrease in profit at ١٠%, ٢٠%, ٥٠% than by the increase in costs at ١٠%, ٢٠, ٥٠% respectively.

Thus, it becomes clear that all the projects under scrutiny are profitable and that the profitability increases if we take into account the social conditions represented in solving the problem of unemployment as well as the environmental conditions represented in the safe use of such residuals to protect the environment from pollution.

قسم الإنتاج الحيوانى

تأثير إضافة الكولين المحمى بالكرش على إنتاج وتركيب اللبن

في أبقار الفريزيان الحلابة

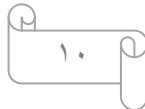
EFFECT OF RUMEN PROTECTED CHOLINE SUPPLEMENTATION ON MILK PRODUCTION AND COMPOSITION OF LACTATING FRIESIAN COWS

By

Ashraf Mostafa Mohamed Yousef

Summary

The current work was carried out at Sakha Animal Production Research Station, belonging to Animal Production Research Institute (APRI), Agricultural Research Center, Ministry of Agriculture in co-operation with Department of Animal Production, Faculty of Agriculture, Kafrelsheikh University during ٢٠٠٧. From the results of the present study, it could be concluded that rumen protected choline supplementation to lactating Friesian cows showed the best results, which improved nutrients digestibility, milk yield and composition, feed conversion and economic efficiency.

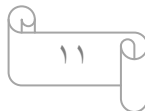


تأثير إضافة البيوجين في العليقة على إنتاج ونمو زريعة البلطي النيلي
“EFFECT OF BIOGEN® SUPPLEMENTATION IN THE DIET OF NILE TILAPIA FRY

By
Mohamed Zaghloul Ali Paromh

Abstract

The Nile tilapia (*O. niloticus*) was one of the first fish species cultured. Seed production is an essential component in the successful production of any organism. Seed should be available in a reliable quality and quantity to enable the producer to begin production in anticipation of resource availability, seasonal changes and market demand (Al-Hafedh et al., ١٩٩٩ and Phelps and Bart, ٢٠٠١). Therefore, this work is an attempt to explain some of these constrains which influenced tilapia production. Three experiments were conducted consecutively, in this study to investigate the effects of bloodstock age, size, feeding regime, protein level, protein source and stocking densities on bloodstock growth and reproductive performance. The experiment aimed to evaluate the effects of feeding a commercial dietary probiotic Biogen®(٠, ١, ٢, and ٣ g Biogen®/ Kg of diet). to Nile tilapia bloodstock on growth and reproductive performances. The second experiment was conducted to investigate the effects of using different levels of dietary Biogen®(٠, ١, ٢, and ٣ g Biogen®/ Kg of diet). on growth performance, feed and protein utilization and survival rates of Nile tilapia fry. Bloodstock growth performance and survival rates found to be significantly affected by the dietary Biogen levels. survival rates did not affected. All treatments had ١٠٠% survival rates. Seed production and bloodstock reproductive performance There were significant differences among different Biogen levels on female reproductive performance. T^٤ had the highest ($P \leq ٠.٠٥$) total seed number/ female (٨٣٥.١٣٣ ± ٢.٣٧٨) followed in descending order by treatments T^٣ (٧٣٣.٦٠ ± ١٠.٢٨٩), T^٢ (٧١٦.٢٦٦ ± ٢٤.٥٦٠) and T^١ (٦٤٢.٦٦٧ ± ٣٢.٣٦٨ , respectively. Fry nursing trial of the first experiment the growth performance, feed intake and feed conversion ratio were significantly ($P \leq ٠.٠٥$) affected by bloodstock dietary treatments. Nile tilapia fingerlings growth performance and survival rates % of Nile tilapia fingerlings There were significant differences ($P \leq ٠.٠٥$) in growth performance parameters among fingerlings groups fed different levels of Biogen and stocked at different stocking densities. protein and feed utilization parameters Nile tilapia fingerlings Feed intake, FCR, PER, PPV and EU (%) significantly ($P \leq ٠.٠٥$) affected by the ^٤th experimental treatments. Bloodstock chemical composition significant differences were found among different Biogen levels in body ash content. Economic Analysis The best values of economic efficiency expressed as feed cost/ kg weight gain were for diets supplemented with Biogen ٣ g/ kg.



**أداء أصبغيات البلطي النيلي المغذاه على علائق تحتوى على
مستويات مختلفة من أنزيم الاميكوزيم**

PERFORMANCE OF NILE TILAPIA (*Oreochromis niloticus*) FINGERLINGES FED
ON DIETS CONTAINING DIFFERENT LEVELS OF AMECOZYME ENZYME

By

Heba Mohamed Mahmoud Elmezyen

Abstract

This work was carried out at the wet fish lab, Department of Animal production, Faculty of Agriculture, Kafrelsheikh university during summer season, ٢٠٠٧ . Feeding experiment was conducted for ١٢ weeks to study the effect of dietary supplementations of amy cozyme at two levels (٠.٥ or ١%) on growth performance, feed utilization, body composition and preliminary economical evalution of Niletilipia (*Oreochromis niloticus*) fingerlings .

Prior to the start of the experiment, the fishes were adapted to abasal commercial diet {controldiet (T^١)} containing ٣١.٠٥ % crude protein and cosisted of hereing fish meal, soybean meal, yellow corn, wheat bran ,cornoil vit.^٨ min, mixture forweeks. At the end the results of chemical composition and calculated gross energy of different experiment diets showed limited variations among these diets .Experimental diets contained hearly similar levels . Water quality parmeters were affected increased total body length, growth performance, feed intake, chemical composition and the preliminary economical efficiency the supplemented amecozyyme level ٠.٥ % was the superior . Economic effect to produce one Kg fish gain, it saved about ٢١ % from total costs .

النظم المختلفة لتغذية العجول الجاموسى وإقتصاديات إنتاج اللحوم
DIFFERENT FEEDING SYSTEMS FOR BUFFALO CALVES
AND ECONOMICAL MEAT PRODUCTION

By

Reda Abd El-Bary Abd El-Azez Mesbah

Summary

This study was conducted at Department of Animal Production, Faculty of Agriculture, Kafrelsheikh university, in cooperation with Agricultural Economics Institute-Agricultural Research Center, Ministry of Agriculture. This study aimed to investigate the evolution of production capacity from meat and the number of farm animals in the Governorate of Kafrelsheikh; the current situation of the production of roughage and concentrate Feedsuffs; study of economic indicators for the production of meat . Sources of data were obtained from (a-) economic Sector of Ministry Agriculture; Animal Production Research Institute (b-) field data from a farmer breeders (٢٠٠ farms) for fattening buffalo calves in Kafrelshaikh and Desouk centers using a questionnaire for fattening one cycle in ٢٠٠٨. Field data are divided into three categories according to number of animals the first < ٥ , the second $> ٥ < ١٠$ and the third > ١٠ calves. The weight at beginning of fattening was ٢٠٠ kg approx. Rations were different between and within categories. The obtained data were statistically analyzed by SPSS.

The results obtained are summarized as follows:

- ١- Average total numbers of meat producing animals in the Governorate of Kafrelsheikh ٧٩٢.٨ thousand head (cows, buffaloes, sheep, goats, and camels) or ٥٥٦.٣ animal units.
- ٢- At the Governorate of Kafrelshaikh, the average production of meat was ٣٥٧٦, ٩٥٣١, ٨٠, ٦, ٦٨ thousand tons from cows, buffaloes, sheep, goats and camels, respectively. It was noted that, the production capacity of meat from cows, buffaloes and sheep increased linearity, and vice versa with goats and camels with progress of study years (١٩٩٠ to ٢٠٠٧).
- ٣- The study revealed that, there is an increase of roughage over the recommended requirements in the forms of dry matter, crude protein and total digestible nutrients. The rate of surplus tends to decrease with progress of the study years (١٩٩٠ - ٢٠٠٧) and vice versa with high-energy, high-protein Feedstuffs (concentrate Feedstuffs).

- ٤- Average total income of fattening buffalo calves and net revenue has been increased in the second category, compared to the first and third categories in the field study.
- ٥- Efficient economical and margin of profit for producer and return pound for investor was higher in the second category than the first and third category. Moreover, it was the cost of kilogram in the second category was decreased than other categories.
- ٦- Producer income from consumer pound was increased but the profit margin of producer was decreased, perhaps, due to the high cost of fattening.
- ٧- Marketing efficiency was decreased in all categories (٢٦ - ٢٨%). This means that, the differences marketing which obtained by brokers during the stages of marketing are not equivalent with the marketing services.

تأثير الكارنتين - L والدهن المحمي على الأداء الإنتاجي والتناسلي

لأبقار الفريزيان

EFFECT OF L-CARNITIN AND PROTECTED FAT ON PRODUCTIVE AND REPRODUCTIVE PERFORMANCE OF FRIESIAN COWS

By

Noura Bayoumy Abo-Elmakarem Bayoumy

Abstract

A total of ١٨ Friesian cows aged ٣-٥ years and at ١st and ٢nd parity were used in this study. All Friesian cows used in this study were at early post partum. The experimental animals were assigned to three groups according to live body weight (LBW), milk yield, parity and age. Cows in the ١st group were fed on concentrate feed mixture and was considered as a control group. While, cows in the ٢nd group were fed on concentrate feed mixture supplemented with ٥% PF (٥% of CFM was replaced by Magnapac and ٣rd group were fed on concentrate feed mixture and ٢ g L-Carnitine (LC) oral each cows daily, Cows were fed on equal amounts of diet containing CFM, rice straw, Berseem hay and corn silage according to the Animal Production Research Institute (APRI, ٢٠٠٢) recommendations required for Friesian cows based on live body weight and milk yield. The present results could be summarized as following: average daily DM intake was nearly similar in all experimental groups, ranging from ١٩.٢٥ to ١٩.٥٣ kg/h/d. The overall mean of daily milk yield as ADMY or FCMY of cows increased by about ١٩.١٣ and ١٠.٣٤% in ADMY and ٢٥.٧٥ and ٢١.٩٩% in FCMY for cows fed diets supplemented with LC and PF than those fed the control diets.. ($P<٠.٠١$) effect of dietary treatment on post partum first estrus interval (PPFOI) and postpartum first service interval (PPFSI), although there were tendency to be shorter in cows fed LC diet than in PF and control groups.

قسم الحشرات

تأثير بعض بدائل حبوب اللقاح على نشاط خيل العسل

Influence of some pollen substitutes on activity of honey bees

by

Mohammed Ghazy Mohammed Ghazy

Abstract

The present investigations were carried out at the apiary of the Faculty of Agriculture, Kafr El-Sheikh University to study the effect of feeding with some pollen substitutes on the honeybee activities, honeybee workers & honeybee drones, during the period extended from beginning of February ٢٠٠٦ till the end of January ٢٠٠٨ for activities and from February ٢٠٠٧ till the end of January ٢٠٠٨ for worker and drone honey bee.

Nine honeybee colonies (each five combs) of hybrid Carniolan honeybee were equalized to be in the same strength (brood, bees and feed) headed by young sisters open mated hybrid queens. The colonies divided into three groups of three colonies. Group A fed on diet^١, group B fed on diet^٢ and group C did not feed on any pollen substitutes (control).

The highest mean number of incoming workers/minute/colony, mean number of incoming workers carrying pollen/minute/colony, mean area (sq.inch) of stored pollen/١٢ days/colony, mean area of wax secretion, mean number of queen cups, mean amount of estimation of feed consumption, and mean amount of clover and cotton honey yield./colony were obtained from colonies fed on diet^١, while the lowest mean were obtained from control colonies.

The highest mean area of drone brood/١٢ days/colony was obtained from colonies fed on diet^١, while the lowest mean was obtained from control colonies. The highest mean weight of drones, mean length and width of the right fore-wing, mean length and width of the right hind wing-mean number of hooks of the right hind-wing, mean size of testis, mean size of seminal vesicle, mean size ?????????? and mean number of sperms/drone were obtained from colonies fed on diet^٢, while the lowest mean were obtained from control colonies fed on diet^٢, while the lowest mean were obtained from control colonies fed on sugar syrup only.

دراسات بيولوجية على الاكاروسات و بعض طرق مكافحتها بيولوجيا

**BIOLOGICAL STUDIES ON ACARINA AND SOME BIOCONTROL
METHODS**

by

Yousef Ramadan Yousef El-Tantawy

Abstract

The present investigation focuses on two points the first concerns biological studies on the predacious mite *Proctolaelaps pomorum* (Oud). Moreover, it was planned to study the life cycle of the mite *Acarus farris* (Oud) well known to the one of the dominant mites of stored products. The second point of study was on control agents and we prelectes two biological compounds, tracer and biofly against the two red spider mite, *Tetranychus urticae* (Coch) on the larvae, nymph and adults on the other hand, as for *Acarus farris*. The study includes the whole stages of the mite, the egg, larvae, nymph and adult. Result indicated that, the predacious mite *P. pomorum* can consume different diets since he succeeded to consume larvae and pupae of *Drosophila melanogaster*, and also larvae and nymph of the red spider mite *T. urticae*.

**دراسات ايكولوجية و بيولوجية على أهم الآفات التي تصيب
بعض المواد المخزونة من الحبوب والبذور**

Ecological and biological studies on some important pests of stored grain and seeds
by

Heba Amr Mohamed El-Shannat

Abstract

An investigation was carried out at the laboratory of Acarology, Economic entomology Department, Faculty of Agriculture, Kafr El-Sheikh University from ٢٠٠٥ to ٢٠٠٧ at kafr El-Sheikh city. That lasted for two complete years beginning in September ٢٠٠٥ and ending by August ٢٠٠٧.

Therefore, the objectives of the present investigation were:

A. Syrvey studies:

Survey for mites and insects infesting the tested materials: Cucurbitaceae (Pumpkin, Watermelon (seeds)), Compositae (Sunflower (seeds)), Leguminosae (Peanut, Egyptian clover), Gramineae (Yellowmaize, Sorghum), Cruciferae (Radish, Rocket), Umbelliferae (Parsley), Coriandrum (Coriander).

B. Population studies:

١. To estimate the insect and mite population densities and their fluctuations during the two successive years of study.
٢. To determine the major ecological factors responsible for high pest fluctuation such as temperature, R.H. and grain damage in cause of pests on its level occurrence.
- C. Measuring the species diversity occurring in the ١١ tested materials, and which of which is more susceptible convenient for high insect and mite species infestation on the basis of Shannon and Weaner Index equation.

D. Biological studies:

Biological studies were carried out on, two mite species, *Acarus farris* (Oudemans) (Family: Acaridae), *Cheyletus malaccensis* (Oudemans) (Family : Cheyletidae).

١. The effect of different laboratory temperature, relative humidity and type of food (eggs & immature stages) of the grain mite *Acarus farris* on developmental stages, fecundity of the predator mite *Cheyletus malaccensis*.
٢. Feeding capacity, of the predatory mite, when fed on eggs and immature stages of *Acarus farris*.

دراسات على ذبابة ساق فول الصويا في منطقة كفر الشيخ

Studies on Soybean Stemfly, *Melanagromyza sojae* (Zehntner) in Kafr El-Sheikh
Region
by

Fatma Ibrahim Abd El-Raoof Shataa

Abstract

Soybean *Glycine max* (L.) is considered one of the most important legume crops in Egypt. It is an excellent alternative source of protein and oil. Under field conditions, soybean plants infested with several species of insect pests all over the world. One of the most common and important is *Melanagromyza sojae* (Zehntner).

The main results of the present investigation could be summarized in the following results

١. Seasonal abundance of *M. sojae* infestation in soybean fields

In the first season, ٢٠٠٣ in the first sowing date, ١٠ May (early) and the second sowing date, ٢٠ May results showed three peaks. In the third sowing date ١ June (late), only two peaks were recorded. While in the second season, during three sowing dates, data revealed three peaks of *M. sojae*.

٢. Effect of sowing dates on *M. sojae* infestation

The total number of soybean infested plants for the three considered sowing dates was almost equal and there was no significant differences among them.

٣. Effect of temperature and relative humidity on weekly number of larvae, pupae *M. sojae* and infested plants during three sowing dates

Correlation between the population of insect pest (larvae and pupae) and temperature during the three sowing date was positive and significant in ٢٠٠٣ season. The correlation with humidity was positive and significant, positive and highly significant and positive, and highly significant, during the three sowing dates, respectively in ٢٠٠٤ season.

٤. Susceptibility for four soybean varieties to natural infestation with *M. sojae*

Results during two seasons, could be concluded that Giza ٢١ and Giza ١١١ could be used as sources of tolerance to infestation with *M. sojae* insect and in crossing programs for improving the other soybean local cultivars.

٥. Efficiency of yellow sticky board traps to monitor the adult stage of *M. sojae*

Traps placed at the higher level than soybean plants during growing seasons significantly caught more number of *M. sojae* adults than that positioned at the other two levels.

٦. he role of parasitoids in controlling the stemfly, *M. sojae*

Three parasitoids were recorded for *M. sojae* at Kafr El-Sheikh region. The parasitoids were the pupal parasitoids, *Sphegigaster* sp. (١) and *Sphegigaster* sp. (٢) (Hymenoptera: Pteromalidae); and *Eurytoma* sp. (family Eurytomidae)

دراسات ايكولوجية وبيولوجية على بعض العناكب بكفر الشيخ

ECOLOGICAL AND BIOLOGICAL STUDIES ON SOME SPIDERS IN KAFR EL-SHEIKH

by

EL-Said Mohamed EL-Nabawy Abd El-Fatah

Abstract

The present investigation lasted approximately for two seasons, the first ٢٠٠٦-٢٠٠٧ and the second ٢٠٠٧-٢٠٠٨ was done in the Farm Experiment, Faculty of Agriculture, Kafr El-Sheikh.

١. The Egyptian clover .

Results showed that ١٤ spider species were recorded in clover during two season belonging ٧ families, that families were Lycosidae, Philodromidae, Linyphiidae, Aranidae, Salticidae, Dictynidae and Gnaphosidae.

٢. Wheat.

Results showed that ١١ spider species were recorded in wheat during two season belonging ٧ families, that families were Lycosidae, Philodromidae, Linyphiidae, Dictynidae, Salticidae, Gnaphosidae and Araneidae.

٣. Maize.

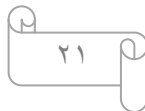
Thirteen spider species were recorded in maize, during the two seasons belonging to ٨ families, such families were Lycosidae, Dictynidae, Philodromidae, Linyphiidae, Salticidae, Araneidae, Theridiidae and Tetragnathidae.

٤- Cotton.

It was found that ١٥ spider species were recorded in cotton, during two season belonging ١٠ families, that families were Lycosidae, Linyphiidae, Philodromidae, Theridiidae, Salticidae, Gnaphosidae, Dictynidae, Araneidae, Thomisidae and Tetragnathidae.

٥- Insecticides affecting on spiders population.

The total numbers of spiders after spraying of lambda cyhalothrin, nasr lathion and untreated were ١٢, ٢١ and ٤٢ spiders, respectively. Finally, the pesticide lambda cyhalothrin was more effective than nasr lathion against population of spiders. Untreated plot harbored the highest number in the population spiders.



قسم المبيدات

التخلص الآمن من مخلفات مبيدات الآفات

Safety Elimination of Some Pesticides Residues

by

Fatma Mohamed Amin Sleem

Abstract

Soybean crop (*Glycine max* L) is a very important economic crop belongs to leguminosae and considered one of the high potentially protein source. In Egypt soybean plants usually attacked by many insect pests such as spider mites, aphids, cotton leaf worm, green bean fly and various caterpillars. Cotton leaf worm *Spodoptera littoralis* (Boisd) considered the major pest thought-out the growing season causing reduction in productively. Therefore, this study aimed to evaluate the insecticidal activity of methomyl, chlorpyrifos and diazinon insecticides against the cotton leaf worm *S. littoralis* on soybean genotype, Giza ٢١, to investigate the behavior of these insecticides in soybean after application, to study the stability of those tested insecticides under some of the environmental factors such as exposure to the direct sunlight, short UV-rays and different temperature degrees, and finally the efficiency of some commercial processing on the removal of methomyl, chlorpyrifos and diazinon residues from soybean seeds were evaluated.

The results showed that chlorpyrifos was the most effective insecticides against cotton leaf worm. Diazinon was the lowest persistence insecticide on and in soybean leaves and pods, while the highest residues values were methomyl and diazinon on and in seeds. In mature seeds were not detected at moreover harvest day. The environmental factors such as exposure to the direct sunlight, short UV-rays and different temperature degrees significantly reduced levels of the tested insecticides, influence of exposure to direct sunlight, the highest loss were diazinon and methomyl then chlorpyrifos insecticide. While influence of exposure to UV-rays, the highest loss were methomyl followed by diazinon then chlorpyrifos insecticide. Also, the result showed that the loss rate values increased by increasing, the degrees of temperature significantly the degree ٤٥°C was higher than degree ٣٥°C in the effect of the insecticides. The results showed that the food processing is an important process in minimizing insecticides residues in the final products, the removal percentage values were significantly, whereas, cooking procedures were the highest effect than dry heating at (٩٠-٩٥°C) on removal of all tested insecticides from soybean seeds

مكافحة بعض حشرات الحبوب المخزونة

CONTROL SOME
OF THE STORED GRAIN INSECTS

by
Mostafa Elsaid Elsaid El-Ebiary

Abstract

In this study we evaluated efficiency of some materials; insecticides (spinosad, ivermectin, lufenuron and malathion), inert dusts(tricalcium phosphate, silica dust and super phosphate), botanical oils(basil, chamomilla and nigella) and organic acids(tartaric, ascorbic, citric and oxalic) on four important stored grain insects, *S. oryzae*, *R. dominica*, *T. castaneum* and larvae of both *T. granarium* and *T. castaneum* by using the bioassay method, mixing with media. Results obtained demonstrated that *R. dominica* was more susceptible to biocides and chemical insecticides tested than *S. oryzae*. *T. castaneum* was more tolerant than the other tested insects. Half-dose of spinosad or ivermectin nearly produced the same effect with complete dose on *S. oryzae* and *R. dominica*, while the one-third dose was less effect. Lufenuron was highly effective against larval stage of *T. granarium* and *T. castaneum*. Larvae of *T. granarium* were more tolerant than larvae of *T. castaneum*. Silica dust and TCP provided the most effective control against the three stored products insects followed by super-phosphate at the two periods of exposure (١ and ٢ weeks). The basil oil was the most efficient against *S. oryzae* followed by chamomilla and nigella after ٢ weeks post treatment. For *R. dominica* the chamomilla oil was the most efficient. Organic acids have no initial effect or acute toxicity on the tested insects but achieved a moderate latent effect on progeny.

تأثير بعض مبيدات الافات على محصول فول الصويا والحشائش المصاحبه له

Effect of certain biological methods in controlling root knot nematodes
on sugar beet plants
by

Rem abdallh Abd el ghalk

Abstract

Two field experiments were carried out during both ٢٠٠٦ and ٢٠٠٧ summer seasons at Sakha Agriculture Research Station, Kafr El-Shiekh Governorate, to study the effect of two herbicides (fluazifop-Pbutyl and butralin) alone or in combination with one insecticide (malathion) on weeds characters, yield and yield components of soybean in addition to estimation the residues of these pesticides in the harvested soybean seeds.

Treatments were as follow:

A. Insecticide treatments:

١. Treated with malathion at the rate of ٣٠٠ cm^٣/fed.
٢. Untreated with malathion.

B. Weed control treatments:

١. Butralin (Amex) ٤٨% EC at ٢ L/fed., soil surface application (directly, after sowing and before irrigation).
٢. Fluazifop-P-butyl (Fusilade super) ١٢.٥% EC at the rate of ١.٥ L/fed (applied at ٢٥ DAS).
٣. Hand hoeing two times (carried out at ٢٥ and ٤٠ DAS).
٤. Control (unweeded).

Soybean hybrid seeds Giza ٢٢ was sown after false irrigation at ١٧ May in both seasons. The experimental design was split plot with six replications. Insecticide treatments were arranged at random in the main plots and weed control treatments were randomly arranged in the sub plots.

Average number of weed flora in the untreated plots in the first season was about ٣٥٠ and ٣٠٤ weed/m^٢ while under the second season was about ٢٥٩ and ٢٥٧ weed/m^٢ at ٦٠ and ٨٠ DAS, respectively.

Approximately ٨١ and ٨٥ % of these weeds were narrow-leaved species, while only ١٩ and ١٥ % were broadleaf species in ٢٠٠٦ season, while under the second season conditions, narrow-leaved species were about ٧١ and ٦٢ % while ٢٩ and

٣٨ % were broadleaf species at ٦٠ and ٨٠ DAS, respectively. The most dominant weeds accompanied with soybean plants in the experimental site were *Echinochloa colonum* (٣٥.٨ and ٤١.٤ %), *Setaria viridis* (٢٣.٦ and ١٢.٢ %), *Dinebra retroflexa* (١٦.٨ and ١٧%) as grassy weeds and *Portulaca oleraceae* (١٦.٣ and ١١.٩ %) as broad-leaved weeds in addition to *Cyperus rotundus* (٦.٤ and ٢.٧ %) as a perennial weed in both ٢٠٠٦ and ٢٠٠٧ seasons, respectively.

During growing season, weeds characters were recorded twice, after ٦٠ and ٨٠ days from sowing. While at harvest, plant characters, yield and yield components of soybean were recorded and pesticides residues in resulted soybean seeds were determined.

دراسة توكسوكولوجية لبعض المبيدات المستخدمة

وإزالة متبقياتها في البيئة المائية

TOXICOLOGICAL STUDY OF SOME USED PESTICIDES AND THEIR RESIDUES REMOVAL IN AQUATIC MEDIA

by

Moustafa Samir Ragab Saadallah

Abstract

This study was carried out to monitor organophosphorus and carbamate residues in water resources in Kafrelsheikh Governorate. Moreover, to evaluate toxicological effects of dimethoate, malathion and methomyl with the respect to some biochemical parameters and histopathological changes in some organs of treated rats. Also, to evaluate some remediation methods (chemical and bioremediation) for removing the tested insecticides in aquatic system. The results showed that, the most detected insecticides with high concentration at all sampling sites were malathion, dimethoate and methomyl. The tested insecticides at dose level of ١٠ mg/kg induced toxicological effects against treated rats relative to control with the respect to biochemical parameters and histopathological changes in rats organs. Regarding to the remediation technologies of the tested insecticides at concentration level of ١٠ ppm in aquatic system, chemical remediation by photo-Fenton like reagent was more effective than UV, H₂O₂/UV, Fe²⁺/UV systems and bioremediation using *Pseudomonas sp.* (EB٢٠).

**العلاقة بين التأثيرات التشويهية والقدرة على تدمير الهرمونات الجنسية
لبعض الكيماويات الزراعية على حيوانات التجارب**

THE RELATION BETWEEN TERATOGENIC EFFECTS
AND REPRODUCTIVE HORMONAL DISRUPTING POTENTIAL
OF SOME AGROCHEMICALS ON EXPERIMENTAL ANIMALS

by

Asmaa Moustafa Yosef Ragab

Abstract

This study was designed to explore the toxic and teratogenic effects of seven pesticides (chlorpyrifos, carbofuran, methomyl, a mixture between chlorpyrifos and carbofuran, cypermethrin, diazinon and DDT) on the development of Japanese quail chick embryos after being injected into the air chamber of eggs on 6th day of incubation, and the effects of (cypermethrin, diazinon and DDT) on the AChE activities and the activities of some reproductive hormones during embryonic development in Japanese quail embryos after being injected on zero day of incubation. The effect of sublethal doses of tested pesticides on quail egg-weight and their percent loss during incubation was found to be dose dependent, and subsequently this parameter could not be used as reliable teratogenic sign. Moreover, the data also emphasize that the phenomenon of embryotoxicity is not a reliable parameter for teratogenicity. The teratogenic effects of tested insecticides, the results showed that Chlorpyrifos caused remarkable reduction in body size and weight. Methomyl caused reduced body size and weight, deformed right leg and hernia. Carbofuran caused reduction in body size and weight and abnormal feathering at all tested concentrations. A mixture between carbofuran and chlorpyrifos caused reduced body size and weight, deformed leg and toes, wry neck and abnormal feathering. Cypermethrin caused in all tested concentrations remarkable reduction in body weight. DDT caused significant increase of severe abnormalities in the embryos, the most teratogenic are leg and foot, reduction of embryos body weight, growth retardation, abnormal feathering and wry neck. Diazinon caused abnormal hernia, deformed leg and beak, wry neck and reduction in size and weight of body. The results showed that a part of DDT, cypermethrin and diazinon inhibit the activity of AChE by different ratios. The effect of tested insecticides on the functions of both testosterone and progesterone was dose-dependent.

قسم الميكروبيولوجيا الزراعية

المكافحة الحيوية لنيماتودا تعقد الجذور على نباتات الطماطم

باستخدام تجهيزات مختلفة من المضادات الفطرية

Biological control of root-knot nematode (*Meloidogyne* spp.) on tomato by using different formulations from fungal antagonistic

by

Eman Samir Fatehy Hagag

Abstract

The most tow efficient antagonists, identified as *Acremonium* sp. and *Myrothecium verrucaria* were chosen to used in the present work aiming to optimizing the growth conditions for mass production and formulate antagonistic bioproducts suitable for handling and storage. The optimum temperature and pH for mycelial growth of *Acremonium* sp. are ٢٠ °C and pH ٥, whereas are ٢٥ °C and ٤ pH of *M. verrucaria*. The highest production in mycelial growth was obtained on GPY followed by MB medium. The obtained biomass were prepared in five different forms (an aqueous suspension, viscous suspension, emulsions, powder and granules). The viability of *Acremonium* sp. and *M. verrucaria* on wheat bran, sand corn meal and barely powders did not change over four months, except the viability of *Acremonium* sp. on barely witch significantly decreased after tow months. The granules (alginate/wheat bran and alginate kaolin) were retained their viability on storage over four months. The viability of aqueous suspension and viscous suspension retained their viability on storage for one month whereas, the viability of emulsions did not significantly decrease even three months. Metabolites of *M. verrucaria* at different concentrations significantly reduced the percentage of egg hatching and active juveniles of *Myloidogyne javanica*. The prepared fungal preparations which proved to have longer shelf-life were evaluated for control of *M. javanica* on tomato under greenhouse conditions. Performance of fungal preparations depend on inoculum density, preparations and application methods. Some treatments achieved levels of protection against root-knot nematodes and of plant growth comparable to those achieved by the nematicide Rugby ١٠G. Hhigher inoculum densities (10^6 CFU /g soil) were more effective especially, antagonistic nursery method. The granules which prepared from *M. verrucaria* metabolites and DiTera achieved significant high levels of protection against root-knot nematode, they reduced root-galling by ٧٤.٨٥% and ٧٦.٥٧%, respectively at the higher rate (٠.٢ g/plant) witch was not significantly different from that achieved by Rugby ١٠G (٨٢.٨٥% reduction) and reduced the final nematode population by ٩٣.٦٣% and ٩٥.٢٥%, respectively at the higher rate (٠.٢ g/plant) witch was achieved reduction

higher than achieved by Rugby ١٠G (٩٠.٩٣% reduction). The promising attributes of *Acremonium sp.* and *M. verrucaria* preparations encouraged testing its performance under field conditions. The highest reduction on root-galling was achieved when applied using antagonistic nursery method with kaolin granules of *Acremonium sp.* (٦٧.٢٥%). Treating with wheat bran granules of *M. verrucaria* achieved the highest reduction of final nematode population (٦٥.٣٦%) and the highest increase of yield (٤٤.٢٦%).

**تأثير بعض الإضافات البيولوجية على الأداء الإنتاجي وكل من الصفات
التشريحية المرضية والأعداد الميكروبية بالأمعاء في كتاكيت التسمين**

**EFFECT OF SOME BIOLOGICAL ADDITIVES ON THE PERFORMANCE AND
THE INTESTINAL HISTOPATHOLOGY AND MICROBIAL POPULATIONS IN
BROILER CHICKENS**

by

Mohamad Elsayed Abd ElMagid Mohamad Elmasry

Abstract

Over the past ٥٠ years, there has been increasing amount of antibiotics used prophylactically and as growth promoters in poultry production, but multiple antibiotic resistance of pathogenic bacteria and links between risk of zoonotic diseases infections on human health and growth promoting antibiotics usage in poultry livestocks make it necessary to look for alternatives to antibiotics use in poultry production. In the present study indigenous bacterial isolates originated from intestine of a healthy adult chicken (*Bacillus cereus/ thuringiensis* A and *Bacillus pumilus* B) and exogenous micro-organisms like *Saccharomyces cerevisiae* F٢٥, tea fungus (Kombucha beverage and cellulosic mat), *Epicoccum* sp and spent mushroom (*Pleurotus* spp), were used as biological additives (pro- and pre-biotics) in comparison with the antibiotics additives for Avian ٤٣ broiler chickens.

The obtained results showed significant increase in the final live body weight of chicks treated with the two bacterial isolates (*B. cereus* and *B. pumilus*) and the other biological treatments numerically increased live body weight and weight gain compared with control treatment. The best treatment for stimulation appetite and therefore increased feed consumption were recorded in cases of *Bacillus cereus* and *Bacillus pumilus* treatment but all treatments had feed conversions better than that of the control treatment and the incident mortality could be as a normal mortality rate. Although the effects of biological additives on blood constituents varied, negative effects couldn't be detected. The total count of coliform bacterial groups (pathogenic bacteria) decreased in the intestine of birds treated with some of the indigenous and exogenous microbial materials, whereas, the lactobacilli bacterial group (beneficial bacteria) increased. The microscopically examination of intestinal cross sections revealed improvement in the immune related intestinal structures (mucus secreting glands and epithelial lining intestinal villi) and showed no histopathological features in birds treated with some biological additives, while macro and micro gametes of *Eimeria coccidia* and periglandular edema were observed in the intestines histopathological examination of birds treated with antibiotics

قسم الوراثة

دراسات وراثية و بيوتكنولوجية على تحمل الأرز للملوحة

Genetical and Biotechnological Studies on Salinity Tolerance in Rice

by

Ebrahim Abd El-Salam Mohammed Ramadan

Abstract

Salinity is one of the major environmental stresses that limit productivity of rice and other crops worldwide. Four Egyptian rice varieties i.e. Giza^{١٧٧}, Sakha^{١٠١} (salt susceptible varieties), Sakha^{١٠٤} (moderately salt tolerance variety) and Giza^{١٥٩} (tolerant variety) were crossed and one hundred doubled haploid lines (DHLs) were developed using F^١-anther culture technique. The DHLs, the four parents and two salinity check varieties (TCCP ^{٢٦٦-٢-٤٩-B-B-٣} as a salinity tolerant check variety and IR ^{٢٩} as a sensitive check variety) were evaluated under normal conditions and Lysimiter conditions (tap water, ٤٠٠٠ ppm and ٦٠٠٠ ppm). Genetic variability, phenotypic correlation coefficients and path co-efficient analysis were estimated under normal and Lysimiter conditions. For molecular evaluation, twenty two genotypes were selected and studied by using total soluble proteins (TSP), simple sequence repeats (SSR) and intron-exon splice junctions (ISJ) techniques. The results indicated that, the all studied characters for all genotypes exhibited decreased estimations under salinity treatments (٤٠٠٠ ppm and ٦٠٠٠ ppm) compared with the control treatment (tap water) except for days to heading. For genetic parameters, the phenotypic and genotypic variation increased for most traits compared with respective tap water treatment. The high estimates of Genetic coefficient of variation (G.C.V.), Heritability (h^٢%) and Genetic advance percentage (G.A. %) were observed for flag leaf area, pollen fertility, sterility percentage, grain yield plant^{-١} and straw weight plant^{-١} suggesting that these traits could be improved by direct selection under saline soil conditions. For phenotypic correlation coefficient, under all treatments, significant and high significant positive correlations were observed between grain yield plant^{-١} and each of flag leaf area, plant height, straw weight plant^{-١}, panicle length, panicle weight and harvest index. For path co-efficient analysis, the traits straw weight plant^{-١}, one thousand grain weight and pollen fertility had positive direct effects on grain yield under all treatments. For SSR markers, five SSR markers were used i.e. RM^{٢٠٨}, RM^{٢٢٣}, RM^{٢٢٤}, RM^{٢٧٦} and RM^{٣١٥}, all of them generated polymorphic bands among the genotypes except RM^{٣١٥}. A total of eleven alleles were detected among the twenty two genotypes. The number of alleles per locus ranged from one to three, with an average of ٢.٢ alleles per locus. Three ISJ Primers i.e. ISJ-^٥, ISJ-^٧ and ISJ-^٩ were used. The number of generated DNA fragments was ranged between six for ISJ-^٧ and seventeen fragments for ISJ-^٥ producing polymorphic ratio of ٨٢.٠٥% in average.

**التقييم الجزيئي لكفاءة استخدام بعض التراكيب الوراثية في الأرز
لمستويات منخفضة من النيتروجين**

**MOLECULAR ASSESSMENT OF SOME RICE GENOTYPES
FOR LOW NITROGEN INPUT USE EFFICIENCY**

By

Mohamed Ahmed Ahmed Abd El-Rahman

Abstract

The present investigation was carried out at Genetics Department, Faculty of Agriculture, Kafrelsheikh University, and Rice Research and Training Center (RRTC), Sakha, Kafrelsheikh, Egypt.

Two experiments were conducted during ٢٠٠٧ and ٢٠٠٨ seasons, respectively, in these experiments four nitrogen levels were applied (i.e. zero, ٢٠, ٤٠, ٦٠ Kg N fed⁻¹) The first experiment was conducted as a preliminary evaluation of ١٠٥ genotypes. On the basis of the obtained results for yield and its related parameters, ٥٥ genotypes were selected to perform phenotypic and molecular assessment in the second season. The studied traits were yield and its components as well as nitrogen use efficiency and its components.

The selected genotypes were classified on the basis of grain yield into efficient, inefficient, inferior and neutral categories. The partial factor productivity and N productivity ratio were very good in differentiating the efficient, inefficient, neutral and inferior genotypes.

RM٢٢٣, RM٢٤٦, RM٢٤٢ and RM٧٢ markers were used and revealed (a^١ and a^٢), (b^١, b^٢ and b^٣), (c^١, c^٢ and c^٣) and (d^١, d^٢, d^٣, d^٤ and d^٥) DNA fragments, respectively. The fragments b^٢, b^٣, c^٣, and d^٣ showed superior association with panicle length under different N-levels, while b^٢ and d^٣ fragments were superior in this regard with grain yield. On the other hand, d^١ and c^١ were superior with ١٠٠٠ grain weight, but b^٢, b^٣ and d^٣ were superior with nitrogen productivity ratio and b^٢, b^٣, d^١ and d^٣ fragments were the only fragments which expressed association with physiological nitrogen use efficiency. Moreover, the fragment b^٣ was able to be expressed only in indica genotypes.

دراسات وراثية على القيمة الغذائية لحبوب الأرز الأسود

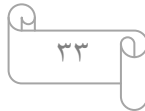
Genetic Studies on Nutritional Value of Black Rice Grains

By

Mahmoud Fazaa Abd El-Magied Mohamed Omar

Abstract

This study was carried out at the Experimental Farm and Rice Biotechnology Lab of Rice Research and Training Center (RRTC), Sakha, Kafr El-Sheikh, Egypt during ٢٠٠٥-٢٠٠٧ seasons to produce double haploid lines with high nutritional value by using anther culture technique. Black Rice (Jiegnou ٩٦٠١) and Four Egyptian rice varieties (*Oryza sativa* L.) were utilized in this study namely (Giza ١٧٧, Sakha ١٠١, Sakha ١٠٢ and Sakha ١٠٤). The parental varieties were crossed using line×tester design. Sixty six double haploid lines (DHLs) and five parents including two checks; Jiegnou ٩٦٠١ (Black rice) and Giza ١٧٧ were used as nutritional value varieties and evaluated under normal conditions. Ten agronomic, yield and its components characters were measured for all genotypes and eight characters for nutritional value and grain quality characters. The mean square estimates revealed highly significant variations among genotypes for all studied characters. It was observed that phenotypic coefficients of variability (P.C.V.) were, as expected, greater than respective genotypic ones (G.C.V.) for all traits. Maximum variability was observed for grain yield plant⁻¹ (PCV = ٢٥.٧٩%, GCV= ٢٥.٠١%), and minimum variability was recorded (PCV = ٢.٧٥%, GCV=٢.٢٤%) for spikelet fertility. The high estimates of heritability in broad sense (h² %) were scored for plant height, grain yield plant⁻¹, days to heading, panicle length, and flag leaf area. For nutritional and quality traits, results revealed that high estimates were observed for Fe concentration in milled (PCV=٤١.٩, GCV=٤١.٣) and brown rice (PCV=٣٨.٨٣, GCV=٣٨.٦). Also results demonstrated that grain yield plant⁻¹ was highly significant and positive correlated with panicle length and plant height and positive significant association was found with flag leaf area. Plant height showed highly positive significant correlation with panicle length. Regarding number of tillers per plant, highly significant positive correlations were recorded with number of panicles, and spikelet fertility. For number of panicles, data recorded highly positive significant correlations with number of tillers and spikelet fertility. Highly significant positive correlations were recognized between (hulling and milling), (Mn/br and Mn/mi), (Zn/br and Zn/mi) and (Fe/br and Fe/mi). The selected genotypes were tested by using Simple Sequence Repeats (SSRs) technique. Four SSR markers were used i.e. RM ٥٩٠, RM ١٥٢, RM ١٥٣ and RM ٢٩٥, all of them generated polymorphic bands among the genotypes. Two alleles were detected for each marker among thirteen genotypes for each character. The level of polymorphism generated was good to study the diversity among the selected genotypes and SSRs markers had a relationship with nutritional value characters (Highly concentrations of Mn, Zn and Fe).



قسم إنتاج الدواجن

تأثير كثافة الطيور ونوع الفرشة واستخدام المجاثم على كفاءة أداء دجاج التسمين وبعض الصفات الفسيولوجية

The effect of stocking density, litter type and perch availability on performance traits and some physiological parameters in broiler

by

Salah Hossny Zaky Argawy

Abstract

This study was designed to investigate the effect of stocking density, perch availability and litter type on performance traits and some physiological parameters in commercial broiler during summer seasons. One thousand three hundred and eighty six one-day old hybrid Avian broiler chicks were allotted to four experimental groups according to stocking densities (٢٠, ٣٠, ٤٠, and ٥٠ Kg of BW/m^٢) which equal ٩.١, ١٣.٦, ١٨.٢, and ٢٢.٧ birds /m^٢, respectively. Stocking density was calculated based on expected final body weight of ٢.٢ kg live body weight per bird. Each group was divided into two subgroups according to litter type (wheat hulls or wood shavings). Half of each subgroup was equipped with perches and the others were without perches. All treatments were randomly housed in thirty-two floor pens (two replicates for each treatment). The experiment was ended at ٦ weeks of age.

The main results are that rearing broiler chicks up to ٣٥ days of age or at body weight of ١.٧٥ kg with level of density of ٢٠ or ٣٠ kg BW/m^٢ without perches and using wood shaving can protect birds from the reduction in growth performance or immunological status. Also, this weight (١.٧٥ kg) is suitable for the marking process.

تأثير مستويات نشا العليقة على الأداء الانتاجي

في أرانب النيوزيلندي الأبيض النامية

EFFECT OF DIETARY STARCH LEVELS ON PERFORMANCE OF GROWING
NEW ZEALAND WHITE RABBITS

by

Hossam Mamdouh Abdo El-Tahan

Abstract

Experiments of the present study were carried out at the Rabbitry of Poultry Production Department, Faculty of Agriculture, Kafrelsheikh University during the period from January ٢٠٠٧ to May ٢٠٠٧.

It aimed to investigate the effect of using diets differing in starch content on productive performance, digestibility of nutrients, caecotrophy, some blood constituents and economic efficiency of growing New Zealand White (NZW) rabbits.

Three experimental diets were formulated to cover all essential nutrient requirement for growing rabbit. The following ٣ diets were obtained: control (١٨.٠٣% starch), HS (٢٣.٩١% starch) and LS (١٢.١٤% starch). All diets were nearly iso-nitrogenous, iso-caloric on the basis of digestible energy and contained similar levels of crude fiber and micro elements.

The main results and conclusion could be summarized as follows:

- ١- Live body weight and daily weight gain were increased significantly, while feed intake was reduced significantly by increasing the level of starch.
- ٢- The best feed conversion ratio was observed for rabbits fed high starch diet, while the worst was observed for those fed low starch diet.
- ٣- The mortality (%) -less was recorded for rabbits fed low starch diet, while the highest was observed for those fed high starch diet.
- ٤- Digestibility coefficients of GE, CP, OM and DM were increased significantly resulting from increasing starch level in diets, but digestibility of NFE and EE were significantly decreased.
- ٥- Increasing the level of starch led to significant increase of the daily soft faeces excretion (١١.٣ g DM/d).
- ٦- The highest contribution of soft faeces to total crude protein intake was obtained at the level ١٢.١٤% starch.
- ٧- Decreasing the starch level in the experimental diets had negatively affected on carcass traits, but was positively affected on gastrointestinal tract.
- ٨- Meat content of DM and EE significantly increased by reducing the level of starch, but CP was significantly increased as the level increased.

- ٩- A significant depression ($P < 0.001$) was observed in plasma cholesterol and total lipids, while plasma total protein and glucose were significantly increased by increasing level of starch in diets.
- ١٠- Highest relative revenue (%) was observed for rabbits fed diet with ٢٣.٩١% starch level as compared with those fed diet containing ١٢.١٤ %.

Thus it could be concluded that it is possible to include up to ٢٣.٩١% of starch level in growing rabbit's diets.

قسم المجتمع الريفي

دراسة بعض العوامل المؤثرة على معارف وتبني مربى دجاج التسمين للممارسات الحديثة في بعض قرى محافظة كفرالشيخ

A Study of Some Factors Affecting The cognitions and The Adoption of Chickens
Breeders of Modern Practices in Some Villages of Kafr El-Sheikh Governorate

by

Mohamed Mohamed Helmy Abd Alla Ghlab

Abstract

The needs of the Egyptian population of animal products as an important source of animal protein are increasing rapidly and this problem has just exacerbated after the Egyptian village changed from self-sufficiency into a consuming society and the spread of bird flu during the first decade of the twenty one century and the return of such disease in successive waves.

Consequently, the current study has been conducted with the aim of exploring the factors affecting the knowledges and the adoption of chickens breeders of modern practices in some villages of Kafr El-Sheikh governorate.

A sample of wards that exist in Dessouk and El-Ryaad centers at a percentage of (٦٢,٢%) has been tested and the breeder of chickens is regarded as a unit of data collection.

A questionnaire was prepared and pre-tested and an interview was also used as a method of collecting field data. This data was inserted into the computer after being coded and the appropriate statistical methods have been applied. This resulted in drawing the following conclusions:

- ٦٦,٥% of the sample could be counted out of poultry and that ٦٥% of the farms are of small size and middle capacity. The cognition of breeders of modern practices is too low in raising poultry whereas their adoption of modern methods in breeding was very high (٥٦,٧%) .
- There is a positive significant relationship between the cognition of breeders of modern practices and the following independent variables:
Education level- specialty- sons education level- social participation- recognition of information sources and the decision making.
- There is a positive significant relationship between the adoption of breeders of modern practices and the following independent variables:
Farm ownership, exposure to sources of information, decision making, innovativeness in poultry production and years of experience.

- The variables of analytical format of the current study could explain a percentage of ٦٤% of variance in the cognition of breeders of modern methods of breeding chickens and a percentage of ٧٠.٣% of variance in the adoption of breeders of modern methods.

Factors of significance that construe the degree of cognition are:

- Social participation, specialty, decision making, exposure to sources of information, farm ownership, sons education level, years of experience, ambition level and the spouse's education.
- Factors of significance that explain the degree of adoption of modern practices in breeding chickens are:

Opinion leadership, farm ownership, exposure to sources of information, the level of sons' education ,ambition level, the age of the subject, years of experience, specialty, education status and innovativeness in poultry production.

The study included some scientific and applied recommendations.

**دراسة بعض العوامل المرتبطة والمحددة لاتجاهات الريفيات نحو المنظمات
غير الحكومية في بعض قري مركز كفر الشيخ محافظة كفر الشيخ**

**A STUDY OF SOME FACTORS CORRELATED AND DETERMINED OF THE
ATTITUDES OF RURAL WOMEN TOWARD NON GOVERNMENTAL
ORGANIZATIONS IN SOME VILLAGES IN KAFR EL-SHEIKH DISTRICT,
KAFR EL-SHEIKH GOVERNORATE**

Abstract

The main objective of this study was to investing the bivariate and multivariate between certain independent variables and attitudes toward non-government organization among rural women in kafr el-sheikh governmental. This objective could be achieved through identifying the relevant independent variables; identifying women perception of non-government organization; and assessing the multiple regression relationships between the independent variables and each dimension of attitudes toward non-government organization .

The population of the study was delineated to be all females in the age – group ٢٠ to ٤٥ years in kafr el-sheikh district . a multistage duster sample of ٣٠٠ women was selected and interviewed using a structured interview schedule . collected datd were coded and analyzed .

The most important finding of the study may be summarized follows:

- ١- the nine independent variables of age, husbands educational level, personal income, family income, level of living, aspiration, geographic openness, distance to the city of kafr el-sheikh and community development index are bivariatily correlated with attitudes toward non-government organization and its dimensions
- ٢- the independent variables, combined, explained about ٦٣% of the variance in the cognitive dimension of attitudes toward non-government organization, of which about ٥٠% are due to the effect of education alone .
- ٣- the independent variables, combined, explained about ٥٥% of the variance in the affective dimension of attitudes toward non-government organization of which about ٤٤% are due to the effect of education.
- ٤- the independent variables, combined, explained about ٣٧% of the variance in the behavioral dimension of attitudes toward non-government organizations, of which about ٢٢% are due to the effect of education .
- ٥- the independent variables, combined, explained about ٥٩% of the variance in the total index of attitudes toward non-government organization of which about ٤٣% are due the effect of education .

دراسة وصفية لمشكلات كبار السن في ظل بعض الثقافات الفرعية

بريف محافظة كفر الشيخ

A Descriptive Study of Aging Problems under Some Sub-cultures in Rural Kafr El-Sheikh Governorate

By

Yasmin Ali Ibrahim Etiba

Abstract

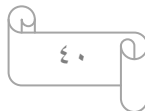
The current research mainly aimed at identifying major social, economic, health, psychological, and religious problems that face elders in Rural Kafr El-sheikh Governorate. The study aimed also to rank these problems according to their relative importance, by their weighted means, in order to identify their priorities, and overcoming them. This will undoubtedly improve the conditions of elders in rural areas. Furthermore, the study has assumed that sub-cultures, in terms of the economic activities in rural areas have impact on the nature and scope of these problems. That is, by agricultural, vocational, fishing, and services activities.

This study has been conducted in rural Kafr El-Sheikh governorate where it involved all the elder people (٦٠ years and old). One village of four sub-cultures in terms of their economic activities-agricultural, vocational, fishing, and services activities- were selected randomly to represent each sub-culture. An area sample was utilized to select the sample from each village. A simple random sample was drawn and reached ٢٤٥ respondents.

Some statistical techniques were utilized to analyze the data. Averages, weighted means, Standard deviations, ranges, frequencies and percentages were used to describe research data.

This study has dealt with the topic of social problems- that face the elders in rural areas - as a multidimensional concept which consists of eight dimensions. They are: Health problems, economic problems, psychological problems, people's negative attitudes towards the elders, problems of social disintegration relationships with family and friends, religious problems, retirement problem, lack of social status problems, and leisure time problems.

The results demonstrated that all respondents suffer from all the problem in general and with different degrees. the results showed also, the proportional importance of the problems which face the elders (whether they are males or females) according to the nature of the sub-cultures which the problems happen in.



The results indicate that all the problems facing the elders prevailed in all sub-cultures and they are vary in their nature and scope and rank in each sub-cultures. Besides all the results found that economic problems are ranked first (for males and females)

As for as elder females in the total sample, the results have shown that the economic problem was the most important problems that face them, followed by health problems, psychological problems, social disintegration relationships with family and friends, negative attitudes towards the elders problems, retirement problem, religious problems, and the lack of social status system, and leisure time problems respectively.

The study has reached several conclusions and provided some recommendations for improving the status of the elders .

قسم الإرشاد الزراعى

دراسة العوامل المؤثرة على معارف المرأة الريفية فى بعض المجالات الغذائية والصحية بمحافظة كفرالشيخ

A study of Factors Impact on Rural Woman Knowledge Related to Food and Health Aspects in Kafr El-Sheikh Governorate

by

Azza Ibrahim El-Demery

Abstract

This study aims mainly at identifying the knowledge of rural woman in the fields of food, health, and residence in Kafr El-Shikh governorate. A questionnaire was designed and administered to a random of systematic sample of ٢٠٠ rural housewives who represented ١٠% of the total population. Data collection was based on personal interview at the three villages, namely: Mahalet Mousa, Rewana and Elnataf villages. Frequencies, percentages, averages, standard deviation, sample correlation coefficient and partial regression coefficient are used in statistical analysis via SPSS.

The main findings of the study are as follows:

First : The salient characteristics of the respondent rural women:

٨٦% of respondents' age lies at the young and middle categories and half of them are either illiterate or just aware of reading and writing rules. In general. ٦٧% of the respondents represent the low level of nutritional resources whereas ٦٨% lies at the low level of healthy information resources.

Second : Respondents, knowledge on some nutritional fields:

٧.٥% of sample are of low nutritional background whereas ٤٢.٥% of the respondents are of high nutritional background.

Third : The respondents' level of knowledge in some areas of health:

١٢.٥% of the respondents are of low background in health issues whereas ٥٨% of them are of moderate level on health issues. This means that approximately ٧٠.٥% are in need for help to increase their knowledge on health matters.

Fourth : The respondents, level of knowledge on the health of rural residence:

Results indicate that ١٨% of the respondents are of low background on the healthy rural residence whereas ٧٤% of them enjoy a moderate background on issues related to healthy rural residence. This means that ٩٢% are in partial or complete need for extension efforts to have on access to residence health knowledge as well as reforming their misunderstanding of some knowledge.

دراسة لتحليل مضمون مجلة الإرشاد الزراعي في مجالات الإنتاج الحيواني والداجني والسمكي خلال الفترة من ٢٠٠٨/١٩٩٩

Study to Analysis The Content of Journal of Agricultural Extension In The Areas of Animal

By

Ibrahim Shaban AbdeLKader Elshenawy

Abstract

The purpose of this study is mainly the analysis of the content of the magazine extension in the fields of animal production, poultry and fish during the period of ١٩٩٩/٢٠٠٨.

The following is a summary of what has been reached from the results:

Firstly: With regard to the nature of the content of the topics that serve the areas of animal production, poultry and fish:

The study pointed out that issues related to animal production has ranked first among the subjects filled in an area of ٢٠٢.٣٣ pages of the total number of pages of the magazine filled during the study period of \$ ٢٣٦٨.٢٦ pages, and has thus filled ٨.٥٤% of the total number of pages of the magazine occupied in preparing the study, which were followed by issues related to production of sending into exile where she held an area of ٩٤.٢٧ pages per ٣.٩٨% of the total number of pages of the magazine filled during the study period, while issues related to fish production in the last rank held as an area of ٥٦.٣٧ pages per ٢.٣٨% of the total number of pages of the magazine filled during the period of study.

Secondly: With regard to the submission of the information contained magazine:

The results of the study indicated that the content of the magazine extension came in ten categories, depending on the form in which it found as follows: the investigation, advice and guidance, news, scientific article, an editorial, e-farmers, Cartoons, achievements, such as governance and popular meetings, and came to investigate the Introduction Presentation categories concern the area of ١٨٨.٨٦ per page ٥٣.٤٨% of the total area devoted to providing information contained forms of the magazine, followed by the category of a scientific article, where he has a page size of ٩٧.٧٠ by ٢٧.٦٨% of the total area devoted to providing information contained forms of the magazine, and was followed by, respectively, the following forms : tips and guidelines, news, cartoon, e-farmers, interviews, editorial, achievements, and the rule of such popularity, the following plots, respectively: ٢١.٤٥, ١٢.٩٢, ١٠.٤٦, ٨.٢٦, ٦.١٧, ٥.٣٩, ١.٢١, ٠.٦٥ pages, respectively, the following percentages: ٦.٠٨% , ٣.٦٦%, ٢.٩٦%,

٢.٣٤%, ١.٧٥%, ١.٥٣%, ٠.٣٤%, ٠.١٨% of the total area devoted to the forms of the information contained magazine extension.

Thirdly: With regard to expulsion of the technical magazine of extension through the use of images is only one of the determinants of output:

The results of the study images the magazine has been the division of content into three main themes is the images serve the topics of animal production, and photos of topics serve the production of sending into exile, and photos of topics serve fish production, this has made the images, which serve the production of animal subjects in the first place it has an area of ٢٥.٨٢ per page ٥٥.٩٤% of the total area devoted to all the pictures of the magazine, while at the bottom of the images that serve the themes of fish production in an area occupied ٥.١٦ per page ١١.١٨% of the total area devoted to all the pictures of the magazine extension.

الاحتياجات التدريبية للمرشدين الزراعيين في بعض تقنيات الزراعة العضوية بمحافظة كفر الشيخ

Training Needs of Agricultural Extension Agents
in Some Organic Agricultural Technologies at Kafr El-Sheikh Governorate

By
Sherehan Anwar Aly Khedr

Abstract

This study aimed to identify the training needs of agricultural extension agents in some organic agriculture technologies at Kafr El-Sheikh governorate. This achieved through the following sub-objectives: ١- The recognition of some distinctive characteristics of agricultural extension agents, ٢- Identify the training needs of agricultural extension agents in some organic agriculture technologies, ٣- Study the correlation relationships between the training needs of agricultural extension agents in some organic agriculture technologies and the independent variables under study, ٤- Interpretation of variation in the training needs of agricultural extension agents in some organic agriculture technologies, ٥- Identify sources of Knowledge reference of agricultural extension agents in some organic agriculture technologies at Kafr El-Sheikh governorate, ٦- The recognition of problems concerning the application of these technologies, and The recognition of proposed solutions cited by the researched individuals to overcome these problems. Kafr El Sheikh, Ryad and Sydy Salim centers were chosen to be the area of study. This study data were collected by using the personal interview questionnaire from a simple random sample of ١٥٩ of the agricultural extension agents, the important results are:

- ١- About ٢٣% of agricultural extension agents were low training needs in some organic agriculture technologies, while approximately ٥٧% of those respondents were medium training needs in some organic agriculture technologies, while about ٢٠% of them have a high training needs in some organic agriculture technologies.
- ٢- There is a significant reversal correlation relationship at ٠,٠١ level between the training needs of agricultural extension agents in some organic agriculture technologies and the independent variables represented in reference information sources, job satisfaction, motivism of accomplishment, environmental knowledges and the attitude towards organic agriculture. There is also a significant reversal attachment relationship at a level of ٠,٠٥ with variable social communication.
- ٣- The most important reference information sources were agricultural administration in the first rank at a percentage of ٨٥%, followed by agriculture directorate at a percentage of ٦٤%.
- ٤- That the most important reasons not to apply the technologies of organic agriculture in the at Kafr el-Sheikh Governorate: the fragmentation of agricultural holding, the need of awareness by farmers of these technologies, the need of agricultural extension activities to educate farmers in this area, the high cost of organic agriculture, the need of organic agriculture Supplies, the difficulty of marketing of organic products.

**أثر برنامج مكون نقل التكنولوجيا لمحبصول بنجر السكر على معارف
الزراعة بمركز الحامول محافظة كفر الشيخ**

Impact of Sugar Beet technology transfer program on Farmer's knowledge at El- Hamol
district, Kafr El –Sheikh Governorate

By

Rehab Mohammed Mokhtar Abd- El Rahman Rakha

Abstract

The main objective of this study was to identify the Impact of sugar beet technology transfer program on Farmer's knowledge at El- Hamol district, Kafr El –Sheikh Governorate.

Study data were collected from a random sample of (١٠٦) respondent as experimental sample and (١٠٣) respondent as control sample by using personal interview questionnaire.

Frequencies, percentage, arithmetic mean, simple and multiple correlation coefficients, standard deviation, partial and standard partial regression coefficients, and "T" test for comparing two means were used to analyze study data.

Knowledge educational impact of the technology transfer program of sugar beet crop:

The results indicated that ٥٠% and nearly ٣٨% from tow study samples experimental and control were come in moderate knowledge with extension recommendation of sugar beet crop.

To determine the significant differences between mean of the degree of knowledge of tow study samples with extension recommendation of the sugar beet crop, results cleared that the calculated value of (T) was ٣.٩١٦ and it was significant at the level of ٠.٠٠١ of significant, this results refers clearly to a significant between mean of the degree of knowledge of tow study samples.

معارف الزراع بالتوصيات الإرشادية في مجال زراعة وإنتاج محصول القمح بمركز كفر الشيخ

Farmer's knowledge about extention Recommendations in the field of weaht planting
and production in kafr El sheikh District

By

Mostafa Elsayed Abdelhamid yadak

Abstract

This study aimed mainly to reveal farmers knowledge about extension recommendations in the field of wheat proudtion in Kafr El Sheikh District, Data of this study were collected through personal interview questionnaire ,It was carried out on a random sample of ٢١٠ respondents from Miseer village - Kafr El Sheikh District , Frequences and percentages were used to reveal the results . The main results of this study were summarized as following. Respondents knowledge about extension recommendations in the field of wheat production:

- ١- I traveled that the about ٨٦% of the respondents come in the categories of low or moderate of knowledge level of extension recommendation.
- ٢- Respondents knowledge in the field of wheat arrigation. About ٨٩% of respondents had low or moderate knowledge in the field of wheat irrigation .
- ٣- knowledge of farmer respondents about fertilizers for wheat. Results indicated that nearly ٨٢% of the respondents came in the category of had low level of knowledge about fertilizers.
- ٤- Knowledge level in the field of wheat weeds and herbs control. nearly ٨٥% of respondents from a came in the category of low level of knowledge about this field .
- ٥- Knowledge level of farmer respondents in the field of (wheat) pests control results indicated that about ٩٥% of the respondents come in the categories of low and moderate of knowledge in the field of Dests facing.
- ٦- Knowledge level in the field of wheat marketing. About ٨٨% of the respondents had a low level of knowledge in this field .

**دراسة لتحليل مضمون البرامج التلفزيونية الموجهة للمرأة عبر القناة
السادسة خلال الفترة من ٢٠٠٨/٣/١٩ - ٢٠٠٨/٦/٢٠**

A Study of the Content Analysis of the T.V Programs for Women by Six channel
in ١٩/٣/٢٠٠٨-٢٠/٦/٢٠٠٨

By

Ragda Heseen El-Syad Gazy

Abstract

This study aimed at analyzing the content of the programs "OSRATY" and "ANA AL MASRYA" as they are considered between the programs , in the six channel " ٦th " and which direct to the rural woman to develop her to be an active member in society . this was during the period from ١٩-٣-٢٠٠٨ to ٢٠-٦-٢٠٠٨ to achieve the following goals :-

- ١- analyzing media material of two programs "OSTARY" and "ANA AL MASRYA".
- ٢- studying the form of presentation of the two programs.
- ٣- recognizing the enough time for the media material.
- ٤- identifying the revelance of content to the ring to the two programs.
- ٥- studying the source of communication programs broadcast from the two program.
- ٦- identifying the opinion of the rural women in the two programs.

We used a field study that have been happened in kafr el sheik governorate to know the feed back of the two programs " OSRATY " and "ana al masrya" as this governorate one of the provinces covered by sixth channel sowed had choosen kafr el sheikh centre and el hamoul centre frame all centers in it . after that we choose randomly abo tamada from kafr el sheikh centre . and ٥٠ rural woman have been chosen from every village by random to be the sample represent too rural women from these two village . we also prepared a questionnaire by personal interview to collect the data to achieve this study goals .

Contont analysis of the "OSRATY" program in three fields, the first women's health episodes a time of ١٩٣ minutes which represent ٦٧.٩ % from the time spent in an episodes . The second area of social care of women ranked the second as the number of episodes ٣ episodes of the total that take time ٦٩.٥ minutes which represent ٢٤.٥ % of all time, finally the area of baby care which took ٢١.٥ minutes of all time. represent by ٧.٦% of the time spent in all episodes, analyzing the content of the program "ANA AL MASRYA" all objectives of the program " ana al masrya " were in cluded in one and it was the role of the women in society it content ١٢ episodes the times spent in all episodes ١٦٨ minutes.

**دراسة المستوى المعرفي والتنفيذي للمرأة الريفية في بعض مجالات تنمية
دخل الأسرة بمركز دسوق بمحافظة كفر الشيخ**

A study of the level of Knowledge and Achievement About Some Aspects of
Developing Family Income Among Rural Woman in Desouq District Kafr El-Sheikh
Governorate

By

Rabab Ahmed Ali Elabde

Abstract

This study aimed to Knowledge and executive level to the respondents in some productivity and marketing fields in Desouq District in Kafr El-Sheikh Governorate this study focused on the fields of the industry of milk productions, breeding some home birds, marketing some yields, achieve a group of sub aims which following:

The researcher had depended on showing by interview to collection the research data, in order to achieved to count the villages which famous for practicing, a test from systematic random sample of owners wives (about ١٠٪ from them) in village of Kafr Ebraheem and Gamegmon in Dasuq center. Population were ٣٤١٠ and the sample amounting ٣٤٠ respondents.

Frequencies, percentages, arithmetic mean, standard deviation, simple correlation, as well as multiple correlation and regression analysis (step wise) were used to analyze date statistically.

This study included four main chapter the first one dealt the problem and object of study then the second authority review, third research technique, fourth the results and it's discussing, in addition of the introduction, summary, recommendations and finally sources.

Concerning knowledge level of respondents in some productivity and marketing fields. The results revealed that about ٨١٪ of respondents their total knowledge level were either moderate or low.

Concerning executive level of respondents in some productivity and marketing fields. The results revealed that about ٧٩٪ of respondents their total executive level were either moderate or low.

المتطلبات التعليمية للزراع في مجال إنتاج وتسويق الموالح بمركزي دسوق ومطوبس بمحافظة كفر الشيخ

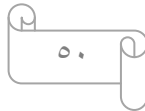
ASMAA FAWZY ABD EL-AZIZ AMER FARMERS' EDUCATIONAL
REQUIREMENTS IN PRODUCTION AND MARKETING OF CITRUS AT
DESOUK AND METTOBIS DISTRICTS IN KAFR EL-SHEIKH GOVERNORATE

By

Asmaa Fawzy Abdelazeez Amer

Abstract

The study aims mainly to identify Farmers' educational requirements in production and marketing of citrus at districts of desouk and mettobis in kafr el-sheikh governorate, Study data was collected by using personal interview questionnaire, from a systematic random sample amounted ٢١٨ respondent farmers. Study results cleared that about ٨٦% of respondent farmers were come in category of between high and moderate of knowledge need in production and marketing of citrus. Study results cleared that about ٨٥%, ٩٢%, ٥٨%, ٩٢%, ٧٤%, ٩٤.٥%, ٩٥% and ٤٥% of respondent farmers were come in category of between high and moderate of knowledge need in fertilization, irrigation, pruning, weed control, use of fertilizers, pest management, disease resistance, trading area of optimization and marketing, respectively. Study results also showed that the independent variables under study combined correlated with respondents educational requirements level as dependent variable by multiple correlation coefficient amounted ٠.٥٤٠, the studied correlated independent variables together explained ٢٩.٢% of this dependent variable variation. The results indicated that the most important problems facing the productive citrus growers arranged and sorted according to the ratios described as follows: the high price of production inputs particularly fertilizers and pesticides, the absence of the extension role in the production of citrus, the limited financial capacity of some farmers, high employment rates, the lack of input in cooperative, the lack of specialized skilled labor, the lack of good assets to graftage the plantation, the spread of viral and bacterial diseases and the inability to control the high level of ground water salinity and alkaline soil, in proportions ٩٢.٢%, ٩١.٧%, ٨٩.٤%, ٨٢.٦%, ٧٨.٩ %, ٦٧.٤%, ٦٦.١%, ٥٨.٣%, ٣٧.٦%, respectively. The results indicated that the most important marketing problems faced by citrus growers arranged and sorted according to the ratios described as follows: The absence of governmental or private stations for sorting and grading and the mobilization of citrus, the lack of manufacturing units for the products of citrus production areas, the absence of the extension role of the educational process in citrus marketing monopoly of some Wholesalers of operations and marketing of multiple intermediaries, the lack of marketing information to producers of citrus, high transport costs after the markets from production areas and the high proportion of damaged, the higher the proportion of commission sales and marketing margins of intermediaries, non-availability of good packaging and high prices, rates ١٠٠%, ١٠٠%, ٩٢.٢%, ٩١.٧%, ٩١.٣%, ٨٤%, ٨٠.٣%, ٧٢.٧%, respectively.



قسم البساتين

دراسات على تطور الجنين والتهجين بين اليوسفي البلدي واليوسفي الكليمانتين

STUDY ON EMBRYO DEVELOPMENT AND HYBRIDIZATION BETWEEN BALADY AND CLEMENTINE MANDARINS

By

Abd El-Fattah Montasir Abd El-Salam Khedr

Abstract

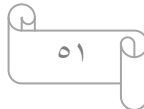
This study was carried out during ٢٠٠٤/٢٠٠٥ season and ٢٠٠٥/٢٠٠٦ season on two cultivars of mandarin, Balady(Local)mandarin (Citrus reticulata) and Clementine mandarin(Citrus clementina Blanco) at a private orchard located at Gharbia Governorate to improve some characteristics of Balady mandarin through the hybridization with Clementine mandarin and study the effect of hybridization on fruit set, fruit retention, number of seed per fruit and germination percentage. Study the stages of embryo development in Balady mandarin to know the dates of nucellar embryo initiation through taking samples on stable dates after pollination (٣ days) for five months and make some anatomical studies. A primary determination on the morphological characters was carried out for the seedlings from hybridization between Balady and Clementine mandarins under plastic house and orchard conditions such as seedling height, branches number, Leaves number and Leaf area.

The results confirmed that the final fruit set % in ٢٠٠٥-٢٠٠٦ season was ٤.٦% while in ٢٠٠٦-٢٠٠٧ season, the final fruit set was ٤.٩ %.

Germination percentage data in ٢٠٠٥/٢٠٠٦ season showed that the germination commenced after ٢٦ days after planting under plastic house conditions .The accumulated seed germination number for ٢٠٠٥/٢٠٠٦ season was ٣٨ , while in ٢٠٠٦/٢٠٠٧ season was ٥٦.

There was a variability in the morphological characteristics of seedlings under the plastic house and the field conditions. The noticed differences in the seedling heights, leaves number and branches number under plastic house conditions as well as under field conditions indicate that there is a possibility of being due to genetic factors beside the environmental conditions. Also, there was variation in leaf area between seedlings from the hybridization between Balady and Clementine mandarin, such variations indicate differences abilities of the trees for the photosynthesis process, consequently sexual other growth and developmental factors will be affected.

Moreover, anatomical studies indicated that the nucellar embryo initiated in early stages of embryo development. However, it was found that the sexual embryo has a suspensor, while this is not present in the nucellar embryos. Thus this could be used as sign to select and separate the sexual embryo under the microscope and growing it under tissue culture condition to complete its growth and obtain hybrid seedlings.



دراسات على التهجين بين بعض أصناف الخوخ
STUDIES ON HYBRIDIZATION BETWEEN SOME
PEACH VARIETIES

By
Mohamed Saad Ahmed Saad Gawish

Abstract

This work has been carried out during the ٢٠٠٦/٢٠٠٧ and ٢٠٠٧/٢٠٠٨ seasons on ٢٠ trees of the five peach (*Prunus persica*. (L.). varieties: Florida prince, Desert red, Sahrawy, Soltany and Meet Ghamr local selection..

Breeding experiment had been carried out between some selected peach varieties that are growing on a large scale in Egypt. This aimed to produce some peach selections that have superior quality under Egyptian condition as well as wide range of adaptability.

Dates of flowering, full blooming and maturity of parents were noted. The selected trees were vigorous, free from any pathogenic symptoms, and subjected to the ordinary horticulture practices.

The vegetative and fruit quality of the hybrid seedlings have been evaluated and the results could be summarized as follows:

- ١- Parents that were used in the crosses had different fruit characters, some of which need to be improved.
- ٢- Fruit set percentages were ٣٥ and ٤٢ % for (Sahrawy x Florida Prince) and (Sahrawy x Desert red) hybrids, respectively in the first season. While it were ٢٥.٥, ٣٩.٣, ٤١.٠, ١٩.٢, ٣٢.٤ and ٢٩.١٥ % for (Sahrawy x Florida prince), (Soltany x Florida prince), (Meet Ghamr local selection x Florida prince), (Sahrawy x Desert red), (Soltany x Desert red) and (Meet Ghamr local selection x Desert red), respectively in the second season.
- ٣- Vegetative parameters of hybrid seedlings varied. The studied characters included seedling height, leaf number/seedling, number of branches, trunk girth and leaf area.
- ٤- The different physical and chemical characters of fruit that were produced on the hybrid seedlings was evaluated. Fruiting commenced in some of the hybrid seedlings after ١ year on some cases or ٢ years in other cases. Still, the hybrid seedlings between Florida prince or Desert red and the Meet Ghamr local selection were late in flowering commencement.

The evolution is made that, there are some encouraging possibilities in the produced fruits of the hybrid seedlings, as the case of having a nectarine types on one of the seedlings and a non-melting flesh, large size and rather sweet and very acceptable taste on another. However, it is too early to give any conclusion in the time being before these hybrids are evaluated completely.

دراسات فسيولوجية على بعض اشجار وشجيرات الزينة

PHYSIOLOGICAL STUDIES ON SOME ORNAMENTAL TREES AND SHRUBS

By

Mohamed Refaat Ibrahim Magouz

Abstract

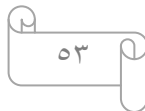
This study was carried out at the Experimental Farm of the Faculty of Agriculture, Kafr El-Sheikh University during two successive seasons (٢٠٠٦ and ٢٠٠٧). This study included two experiments in each season. The first experiment aiming to study the effect of soil salinity (sodium chloride and calcium chloride mixture at ratio of ١: ١ by weight at the concentrations of ٠.٠, ٠.٤, ٠.٨, ١.٢ and ١.٦ g salt/١٠٠ g soil) and paclobutrazol at ٠, ٢٥, ٥٠ and ٧٥ ppm on the growth and chemical constituents of Hibiscus rosa-sinensis L. transplants. Foliar application of a paclobutrazol added at two times, the first one was done on May ١٥th and repeated again after ٣٠ days in early morning. The second experiment was to study effect of three levels of nitrogen (٣, ٦ and ٩ g N/plant added in two equal doses on April ١٥th and May ١٥th) and sulphur (added in one dose on April ١٥th at the rates of ١, ٢ and ٣ g S/plant) on the growth and chemical constituents of Hibiscus rosa-sinensis, L., Lantana camara, L. and Citharexylum quadrangulare, J. transplants. The obtained results could be summarized as follows :

First experiment :

Salinity treatments markedly reduced growth characters in Hibiscus rosa-sinensis, Linn. plants, when compared to the control. The control and ٠.٤% NaCl + CaCl₂ (١: ١) mixture salts treatment produced the highest values of survival percentage, plant height, number of branches and roots/plant, stem diameter, root length and fresh and dry weight of vegetative parts and roots. All salinity levels markedly increased Na⁺ and Ca⁺⁺ percentages and decreased Chlorophyll (a and b) content, N, P and K percentages in the leaves of Hibiscus rosa-sinensis, L. compared to the control. Increasing NaCl + CaCl₂ (١: ١) mixture more than ١.٢% was lethal to Hibiscus transplants. Paclobutrazol generally improved vegetative growth and roots parameters. However, spray of paclobutrazol at high rate (٧٥ ppm) had the most pronounced effect on growth of Hibiscus rosa-sinensis L. transplants in the majority of treatments. The data suggested that paclobutrazol promoted salt stress avoidance of Hibiscus rosa-sinensis, L. plants by reducing the accumulation of harmful Na⁺ and Ca⁺⁺ ions in the leaves of plants and improved N, P and K absorption.

Second experiment:

All nitrogen and sulphur application levels significantly increased the most vegetative growth parameters (plant height, root length, number of branches and roots /plant, stem diameter and fresh and dry weight of vegetative parts and roots) over the control of Hibiscus rosa-sinensis, L., Lantana camara, L. and Citharexylum quadrangulare transplants. Using nitrogen and sulphur at high level (٩ g N and ٣ g S/plant) had the greatest effect for increasing all vegetative growth and roots parameters of the three



plants compared to control. All nitrogen and sulphur application levels increased chlorophyll (a), (b) contents, N, P and K% in the leaves over the control of the three plants. However the highest values resulted from using high level (٩ g N and ٣ g S/plant) in the two seasons.

**استجابة الفلفل الحلو للتسميد العضوي والمعدني وبعض معاملات
التقليم**

تحت الصوب البلاستيكية

**RESPONSE OF SWEET PEPPER TO ORGANIC AND MINERAL
FERTILIZATION AND SOME PRUNING TREATMENTS
UNDER PLASTIC**

By

Adel Abo-AlAsad Mohamad Fayed

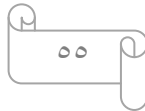
Abstract

The experiments were carried out at Sakha Protected Cultivation Center, Ministry of Agriculture Kafr El-Sheikh governorate during the winter season of ٢٠٠٦ / ٠٧ and ٢٠٠٧ / ٠٨ on "Titanic" sweet pepper hybrid under unheated plastic house. The aim of this study was to investigate the effect of fertilizer source and plant pruning on vegetative growth, flowering, yield and fruit quality as well as chemical analysis of plant and soil biological activity. The results can be summarized as follows:

Application of mineral fertilizer gave the highest values of vegetative growth parameters (plant height, number of leaves / plant, stem diameter and leaf area), flowering and fruiting (number of flowers and fruit / plant), yield (early and total yield and marketable fruits), fruit quality (fruit length, diameter, S.S.C% and nitrate content), while organic treatment increased ascorbic acid content and soil biological activity.

All pruning treatments increased plant height, leaf area and decrease number of leaves, stem diameter and fruit yield / plant (early and total), while pruned plants to one shoot spacing ٢٥ cm increased number of marketable fruit / m^٢. Fruit quality and leaf mineral content were not significantly affected by pruning treatments.

The combination interaction between fertilizer sources and pruning treatments had no significant effect on most of vegetative growth parameters, flowering, yield and fruit quality. While unpruned plants fertilized by organic fertilizer gave the highest biological activity compared to other combination treatments in both seasons.



دراسات فسيولوجية على تشقق ثمار البرتقال

PHYSIOLOGICAL STUDIES ON ORANGE FRUIT SPLITTING

By

Fayed Abd EL Hameed El Sammak

Abstract

The study included data on the effect of two growing sites namely, Kafrelshiekh and Elbehera where the trees of Washington Navel orange are grown on two different rootstocks namely, Sour Orange and Volkamer lemon. The obtained data on the effects of two rootstocks under the agro-climatic condition of the two localities on fruit splitting were combined in one experiment in two successive seasons of ٢٠٠٥/٢٠٠٦ and ٢٠٠٦/٢٠٠٧.

The study indicated that fruit splitting starts early when the fruits are green, reaching a maximum in September . there are a positive relationship between fruit splitting and each of peel thickness, fruit and navel size, crop load, high air temperature and relative humidity under the agro-climatic conditions of the two localities. Fruit splitting was higher at Elbehera on Sour Orange than on Volkamer Lemon rootstock at Kafrelshiekh . Peel analysis recorded a reduction in Ca and Mg concentrations in the peel of splitted fruits and this reduction may be responsible for increasing splitting . In this respect, Volkamer Lemon rootstock was superior than Sour Orange rootstock to minimize fruit splitting . Also, fruit splitting was higher in the southern aspect, interior the tree and in the lower part of the tree canopy.

The study also included results and discussions on fruit growth in relation to air temperature and relative humidity. The obtained results indicated that both of high temperatures and relative humidity during the period of cell enlargement and the used rootstock are involved in the splitting problem in Washington Navel orange fruit.

قسم المحاصيل

صفات الجودة لحبوب الأرز تحت تأثير بعض معاملات ما بعد الحصاد

RICE GRAIN QUALITY CHARACTERS AS AFFECTED BY SOME POST HARVEST TREATMENTS

By

Samah Mohammed Taha Aamer

Abstract

The present investigation was carried out at the laboratories of the Rice Research and Training Center (RRTC), Field Crops Research Institute, Agricultural Research Centre, Sakha, Kafr El-Sheikh, Egypt during ٢٠٠٦/٢٠٠٧ and ٢٠٠٧/٢٠٠٨ seasons. The investigation consist of three experiments to determine the effect of some storage condition on grain quality characters of some rice varieties, namely, Giza ١٧٨ , Sakha ١٠١ and Egyptian Yasmine..

Experiments were conducted to accomplish the aim of the investigation. These experiments aimed to study:

The effect of storage places and storage time on grain quality characters of rice.

The effect of storage places and storage bags on grain quality characters of rice.

The effect of storage bags and storage time on grain quality characters of rice.

CONCLUSION

- The variety of Sakha ١٠١ had the best storability among other varieties during storage time and under different storage conditions with respect to all studied characters except germination percentage. Giza ١٧٨ and E.Yasmin gave the best storability for germination percentage.
- the highest values of all studied characters and kept viability of Grains packed in cloth bags and stored in well ventilated store gave grains.
- Storage for more than three months caused grain deterioration for milling characters, beside chemical composition and germination percentage.

استجابة بعض مخاليط الاعلاف الصيفية للتسميد النتروجيني

٢- نفين لطفى عريان جرجس

RESPONSE OF SOME SUMMER FORAGE MIXTURES TO NITROGEN FERTILIZATION

By

Nevein Lotfy Eryan Gerges

Abstract

For the experiment, it can be concluded that fertilization of summer forage crops with high dose of nitrogen ٣٥ kg N per feddan per cut could be recommended for raising summer forage crops, especially grass forage resulted the growth characters and productivity and from the obtained results, it could be recommended to growing summer forage crops in a mixture with cow pea and the forage yield per unit area can be increased by growing mixtures may complement the other to make better use of the edaphic and climatic environment condition. Moreover, in pure stand, the other component produces less when in mixture, a balanced nutritive value from mixture may be achieved. The cow pea is a predominantly hot weather crop well adapted to the semi arid and forest margin tropic. It is frequently mixed with other crop like pearl millet and sorghum. It is suitable to mixing sorghum with cow pea. The mixture of cow pea with sorghum for fodder purposes have become a common and profitable practice.

From the previous results it could be concluded that the summer forage crops could be planted in mixtures from grasses and legumes. Therefore, mixing cowpea (*Vigna sinensis*) with pearl millet (*Pennisetum glaucum*) or sorghum hybrid (١٠٢) was better than planting any one of them sole. Also, it could be recommended to fertilize summer forage crops at level ٣٥ kg N/fed/cut to raise the quantity and physiological characters.

تقييم بعض هجن القمح لتحمل الجفاف

valuation of Some Wheat Hybrids for Drought Tolerance

by

Ahmed Ismail Ali Saad Alia El-Shamy

Abstract

This study was carried out in ٢٠٠٥/٠٦ and ٢٠٠٦/٠٧ seasons at Sakha Res. Station, Agric. Res. Center, Egypt. The main objective was to study the mode of inheritance, combining ability, grain filling and agronomic and yield characteristics in some Egyptian bread wheat genotypes and their diallel F₁ crosses under two irrigation regimes. Water stress caused significant reductions in all studied traits, except kernels/spike (K/S) and ١٠٠ kernel weight (١٠٠KW) of F₁'s; with grain yield of F₁'s showing maximum reduction. Genotypic differences were found in all traits under both irrigation treatments. Line-١ and Sakha-٦١ x line ١ were early heading and maturing as well as having high yielding ability. Giza ١٦٨ x Gemiza ٩ and Gemiza ٩ x Sids ١ had the best yield under both irrigation regimes and the lowest reduction due to drought besides heterobeltiosis for most studied traits under both conditions. Both general (GCA) and specific (SCA) combining ability variances were significant for all studied traits; with higher magnitude for GCA than SCA. The best general combiners were line ١ and Sakha ٦١ for days to heading (DTH) and to maturity (DTM) line ١ and Gemiza ٩ for grain filling period (GFR) and grain yield (GY). Additive and dominance variances were significant for all studied traits; with additive was more important than dominance for DTH, DTM, GFP, GFR and K/S under both environments and S/P and ١٠٠ KW under non-stress. While, dominance was more important than additive for GY, plant height (PH) and leaf area (LA). Degree of dominance was partial for DTH, DTM, GFP and K/S, complete for GFR, and over-dominance for GY and PH under both environments. Number of genes (gene groups) controlling inheritance was one for GFP, GFR, LA, S/P, K/S and GY; two for ١٠٠KW and DTM under both environments, three for DTH and PH under non-stress and four for DTM under water stress. Results suggested that early heading genotypes showed longer GFP and that S/P and GFR were the most important factors for increasing GY.

Key words:Wheat, *Triticum aestvium*, Grain filling, Gene action, GCA, SCA, Hetrobeltiosis, Correlation.

**دراسات مقارنة في التسميد العضوى والمعدنى لمحصول القمح
فى أراضي شمال الدلتا**

**COMPARATIVE STUDIES ON ORGANIC AND MINERAL FERTILIZATION
FOR WHEAT CROP IN NORTHERN DELTA SOILS**

by

Mohamed Said Abou-Zaid Genaidy

Abstract

This research has been conducted for studying the effects of organic manuring and mineral fertilization and interactions on wheat crop (Sakha ٩٣ variety) growth and yield.

A factorial field experiment was carried out in two successive seasons of (٢٠٠٦/٢٠٠٧); (٢٠٠٧/٢٠٠٨) at Sakha Agric. Res. Station. The statistical "Comp. Rand. Block Design" was applied; where the treatments of the organic manuring were three rates (٠, ١٠ and ٢٠ m^٣/fed.) and the treatments of the mineral fertilization were four levels (٠, N, NP, NPK); with four replications. The co-fertilization treatments comprised ١٠٠%, ٧٥% and ٥٠% of the optimum recommended rates of mineral fertilizers.

The important results and conclusion could be summarized as follows:

- ١- The experimental soil is clayey in texture, none salt affected, poor in organic matter and available N P Zn nutrients.
- ٢- The addition of organic manure of ١٠ m^٣/fed. led to increase wheat yield and yield components. The obtained increments in biological, grain and straw yields were (٢٧, ١١ and ٤١%); (١٣, ٢٤ and ٢٩%) over none manured treatments, and for the two seasons, respectively.
- ٣- The mineral fertilization realized higher wheat yields; where the full addition treatment (١٠٠% NPK optimum rates) led to increments of (٨٥, ١٠٧ and ٩٠%); (١٤٣, ١٠٦ and ٩٩%) over none fertilized treatments for the two seasons, respectively.
- ٤- The Co-fertilization effects revealed that the highest wheat yields were obtained by applying co-fertilization (١٠ m^٣ compost/fed. + ٧٥% of optimum NPK fertilizers rates; while the lowest values were obtained by applying incomplete mineral fertilization without organic manuring.
- ٥- It may be concluded that; for wheat variety Sakha ٩٣ grown in such soils, the treatment of (١٠ m^٣ compost/fed. + ٧٥% NPK mineral fertilizers) should be applied for obtaining higher yields.

تأثير التسميد الأزوتي على محصول الحبوب وإنتاج السيلاج

لبعض الهجن الفردية من الذرة الشامية

EFFECT OF NITROGEN FERTILIZATION ON GRAIN YIELD AND SILAGE PRODUCTION OF OME MAIZE SINGLE CROSSES

by

Yosra Abd El-Rahman Abd El-Rahman Galal

Abstract

This investigation was carried out at Sakha Agriculture Research Station, ARC. in ٢٠٠٧ and ٢٠٠٨ seasons to evaluate six single crosses of maize (SC١٠, SC٨٣, SC١٢٨, SC١٥٥, SC١٦٢ and SC١٧٠) under three nitrogen fertilizer levels i.e. ٩٠, ١٢٠ and ١٥٠ Kg N/fad for different characters connected with yield performance, yield attributes and silage productivity.

The results indicated that plant height, number of leaves/plant, fresh weight/plant, dry weight/plant, days to ٥٠% tasseling and silking from planting, ear height, stem diameter, ear leaf area, leaf area index, ear diameter, number of rows/ear, moisture content were not influenced by increasing nitrogen levels. While, number of green leaves/plant, ear length, number of kernels/row, ١٠٠-kernel weight, grain yield (ard/fad.) and fresh stover yield (ton/fad.), protein percentage in grains and stover increased significantly as nitrogen levels were increased up to ١٥٠ Kg N/fad., except number of dry leaves/plant was decreased. The six single crosses differed significantly for all characters except protein percentage in grains. According to the results, SC١٠, SC١٢٨ and SC١٦٢ would be recommended as the best yield performance and protein quality for grain yield and silage productivity under high levels of nitrogen application.

دراسة بعض العوامل المؤثرة على إنتاجية تقاوي الأرز الهجين

Studies of some factors affecting on hybrid rice seed productivity

by

Mostafa Mamdoah Abd El-Hai Al-shenawey

Abstract

Two fields experiments were carried out at the Experimental Farm of Sakha Agricultural Research Station, Kafr El-Sheikh Governorate, Egypt, during the two successive summer seasons of ٢٠٠٧ and ٢٠٠٨. The field experiments were conducted to study the effect of seeding rate and GA₃ doses on growth characters, yield and its components of F₁ (hybrid rice seed production) and seed quality. A split-plot design with three replication were used. The main plots were devoted to seed rate while the dose of application, was assigned in the sub plots. Four doses of GA₃ (BERLEX) ٣٠٠, ٣٥٠, ٤٠٠ g/ha and a control used for spraying with water in two sprayings. The results showed that growth characters, Yield and its components and Seed quality had affected by seeding rate and GA₃ doses. To get high yield and good seed characters should be used (٢٠ kg/ha for seed rate to female line plus ٤٠٠ g/ha for GA₃ application) and or can used (٢٤ kg/ha for seed rate to female line with ٣٥٠ g/ha GA₃ doses) which depended on the cost of ١ kg from seeds of A line or the cost of ١ g from GA₃. seed quality and seedling characters of hybrid seed of rice hybrids could positively be improved by GA₃ applications and seed rate of seed production field.

وراثة التبكير والمحصول لبعض التراكيب مبكرة التزهير

من قمح الخبز الربيعي في ثلاث مواعيد زراعة

GENETIC CONTROL OF EARLINESS AND YIELD OF SOME EARLY
FLOWERING SPRING BREAD WHEAT GENOTYPES UNDER THREE SOWING
DATES

by

Ahmed Mohammad Solyman El-Fanah

Abstract

The present study was conducted at the Experimental Farm of Sakha Agricultural Research Station during the period from ٢٠٠٦/٢٠٠٧ to ٢٠٠٧/٢٠٠٨. The materials used in this study were twelve wheat genotypes of diverse genetic origin. The eight lines and the four testers were crossed in a line x tester design. The ٤٤ genotypes (eight lines, four testers and thirty-two hybrids) were evaluated under three different sowing dates with one month interval, i.e. ١/١١/٢٠٠٧, ١/١٢/٢٠٠٧ and ١/١/٢٠٠٨. The Experimental design was split plot with three replicates, where the sowing dates were randomly arranged to the main plot and the ٤٤ genotype were distributed in sub-plots. data were recorded on ten guarded plants from each genotype. The recorded characteristics were days to booting, days to heading, days to anthesis, days to maturity, Grain filling period, Grain filling rate, plant height, number of spikes/plant, number of kernels/spike , ١٠٠-kernel weight, and grain yield. Results indicated that sowing dates, genotypes and interaction between sowing dates and genotypes mean squares were highly significant for most traits. It can be concluded that, the present materials might provide the wheat breeders with some good genotypes for their breeding program. Gemmiza ٩, Giza ١٦٣, Sids ١, Lines ٣, ٤, ٥, ٧, ٨ and the combination Sakha ٩٤ x L٣ and Giza ١٦٣ x L٤ were superior genotypes for improving most earliness characters. Gemmiza ٩, Sakha ٩٤, Sids ١, Lines ٣, ٤, ٥, ٦, ٨ and the combination Sakha ٩٤ x L٦, Giza ١٦٣ x L٣, Gemmiza ٩ x L٥, Gemmiza ٩ x L٦, Gemmiza ٩ x L٧ and Sids ١ x L٨ were superior genotypes for improving yield and its components.

التحليل الدائري لمحتوى البذرة ومحتواة من الزيت في فول الصويا

Diallel Analysis for Seed Yield Traits and its Oil Content in Soybean [Glycine max (L). Meer]

by

Hayam Ibrahim Attia Elsayy

Abstract

The present investigation was carried out at Sakha Agricultural Research Station, during the two growing seasons ٢٠٠٧, ٢٠٠٨. Six varieties of soybean (Glycine max) were used in this study namely P_١, P_٢, P_٣, P_٤, P_٥ and P_٦. Crossing among the parental material by means of a half diallel system was initiated in ٢٠٠٧ growing season. In the second season ٢٠٠٨ growing season, the experiment involved the six parental varieties and their F_١ crosses. A randomized complete block design with three replications was used. to study the inheritance of earliness such as (flowering and maturity dates, filling period), and some growth attributes such as (plant height, first pod height) and yield and yield components such as (number of pods, number of seeds, number of branches per plant, seed yield weight/plant, number of seeds per pod, ١٠٠-seed weight). And some seed quality characters such as seed oil content and protein content. The data obtained for genotypes mean squares for all traits in F_١ generation were significant. The crosses (P_١ x P_٦), (P_٣ x P_٤), (P_٣ x P_٦) showed significant negative hetrotic relative to better parent for flowering and maturity dates.

In F_١ generation, the crosses (P_١Xp_٦), (p_٣x p_٦), (p_٣x p_٤), (p_٤x p_٦), gave the highest hetrotic relative over mid and better parent. Phenotypic correlation coefficients showed Selection for one or more of these components could be considered as indirect selection for increasing seed yield.

تأثير التسميد الازوتى والبوتاسى على محصول ومكونات

بعض التركيب الوراثيه للقمح

EFFECT OF NITROGEN, POTASSIUM FERTILIZER ON YIELD AND
COMPONENT SOME WHEAT GENOTYPES

By

Basma El-Sayed Mohamed El-Samahy

Abstract

The present investigation aimed to study the effect of nitrogen and potassium fertilizer rates on two new wheat genotypes and one commercial cultivar, at Sakha Agricultural Research Station, Kafr El-Sheikh, Egypt (ARC) in the two successive growing seasons ٢٠٠٦/٢٠٠٧ and ٢٠٠٧/٢٠٠٨.

The materials used in this study were three wheat genotypes of diverse genetic origin. The present work aimed to study the effects of four nitrogen fertilizer rates, three potassium fertilizer rates as well as their interactions on growth attributes, yield and its components of three wheat genotypes. The Experimental design was split-split plot design in four replicates was used. Wheat genotypes was distributed in the main plots, nitrogen fertilizer rates were allocated randomly in the sub plots and potassium fertilizer rate were assigned to the sub-sub plots. Studied characteristics were (Number of days to ٥٠% heading, Number of days to maturity, Grain filling period, Grain filling rate, Plant height, Flag leaf area, Number of fertile tillers, ١٠٠٠-grain weight, Number of kernels/spike, Spike length, Number of spikelets/spike, Biological yield, Grain yield, Straw yield, Harvest index). Results indicated that increasing nitrogen rate lead to increase in number of spike/m² and; the highest number of spikes (٤٠٣.٢ and ٣٩٥.٠ spikes/m²) was obtained by using the highest nitrogen fertilization rate (٧٥ kg/fed.). Increasing potassium fertilizer rate increased number of spike/m². The highest number of spike/m² (٣٢٥.٧ and ٣١٦.٢ spikes/m²) in both seasons. Sakha ٩٣ were heavier (٤١.٠ and ٣٩.٦ g.) than those of line ١ (٣٧.٣ and ٣٦.٣ g) in both seasons. Increasing nitrogen fertilizer from N₁ to N_٤ increased biological yield from ٨.٤٤ to ١٢.٩٣ t/fed. and from ٩.٢٩ to ١٣.٨٧ t/fed. in ٢٠٠٦/٠٧ and ٢٠٠٧/٠٨ seasons, respectively. It could be concluded that potassium fertilizer rates had insignificant effects on biological yield in both seasons. Increasing nitrogen and potassium fertilizer rate caused highly significant increasing in grain yield of wheat .

تأثير ميعاد الزراعة ومقاومة الهالوك على إنتاجية

بعض أصناف الفول البلدى

Effect of sowing date and broomrape control on productivity of some faba bean (*Vicia faba*, L.) cultivars

By

Marwa Khalil Ali Mohamed

Abstract

The present investigation was carried out under naturally infested orobanche fields, at Sakha Agricultural Research Station (SARS), during ٢٠٠٦/٢٠٠٧ and ٢٠٠٧/٢٠٠٨ growing seasons to explore the effect of sowing date and foliar application of glyphosate with different doses on performance of three faba bean genotypes (Misr ١- Giza ٨٤٣- Sakha ٢) and the behaviour of orobanche. The experiment carried out under three sowing dates (November first- November mid- December first). Treatments were herbicide glyphosate applications with three doses, ١- control, ٢- ٧٥ cm^٣/fed once, ٣- ٧٥ cm^٣/fed twice. Foliar treatments was applied twice, the first was adopted at ٢٥% of onset of flowering and second was conducted after ٣ weeks from the first one. A split- split plot arrangement in a randomized complete block design with three replications was used in all trials. Sowing date were allocated to the main plots, While glyphosate application treatment were allocated in the sub-plots while, faba bean genotypes were occupied the sub-sub plots. Each plot consisted of two ridges, each ٣m long and ٦٠ cm apart. The seeds were sown in two side of the ridge in ٢-seed/ hills distanced ٢٠ cm.

The conclusion from the results are as follows:

- ١- The experimentation in different sowing dates would provide more useful information for recommended to test orobanche experiments under delaying sowing date.
- ٢- Sowing date in November ١٥th and December ١st exhibited the lowest number of orobanche/plot and give the highest yield.
- ٣- The herbicide glyphosate would be effective in alleviating effects of orobanche on faba bean with respect to all characteristics.
- ٤- The glyphosate treatment was effective not only for susceptible host but also for tolerant ones to orobanche.
- ٥- Application glyphosate recommenced treatment ٧٥ cm^٣/fed twice recorded the highest value on susceptible host and tolerant ones to orobanche.

- ٦- Differential reaction of host genotypes and glyphosate treatments may be expected and has been previously reported. Consequently caution has to be taken considering generalization of glyphosate doses to cover all host genotypes. In addition dose recommendations may need to be retested as both recommend and less than recommended dose were mostly of equal effects.

تأثير بعض المركبات التجارية الغذائية على إنتاجيه بنجر السكر
EFFECT OF SOME COMMERCIAL NUTRIENT COMPOUNDS ON SUGAR BEET
YIELD

By
Osama Mostafa Abbas Hamed

Abstract

Two field experiments were conducted at Agricultural Research Farm of the Delta sugar Company, El-Hamoul, Kafr El-Sheikh Governorate, Egypt, in the two successful growing seasons ٢٠٠٧/٠٨ and ٢٠٠٨/٠٩ to study the effect of date of foliar spraying with two commercial nutrient compounds and its rates on yield and quality of sugar beet (*Beta Vulgaris L.*) cultivar Kowmera.

The experimental design was a split-split plot with three replications. The main plots were randomly assigned to foliar spraying dates (١٣٥, ١٥٠ and ١٦٥ days from sowing), the sub plots to commercial compounds (Sugar Mover and Nitrate Balancer) and sub-sub plots to compound rates (control, ٢, ٣ and ٤ liter/fed).

Sugar beet variety Kowmera was used and sown on ١٠/١٠/٢٠٠٧ and ٢٠/١٠/٢٠٠٨. The sub-sub plot area was (٢١.٠ m^٢) and included five ridges. The central ridges were kept to determine yield and quality of sugar beet.

The collected data in the experiments involved the following traits:

- Yield and its attributes were determined on five guarded plants from each plot. At maturity (٢١٠ days from sowing), central area (٨.٤ m^٢) from each plot was harvested (root and top yields for this area transformed to metric tons per feddan).
- Quality parameters were determined in Delta sugar Company limited laboratories at El-Hamoul, Kafr El-Sheikh Governorate. Root samples (about ٢٠ kg roots) from each plot were randomly taken.

The obtained results revealed that:

- Foliar spraying at ١٣٥ days from sowing plus Sugar Mover at the rate of ٣ liter/fed. gave the highest root length, thicker root diameter and beet yield.
- Also, it could be concluded that spraying at ١٣٥ days from sowing date with Sugar Mover at the rate of ٣ liter/fed. under the experimental conditions had a beneficial effect on yield and its attributes.
- Regarding the quality parameters (gross and white sugar yields) the results showed a substantial difference among dates of foliar sprays and compound rates. Beet plants foliar sprayed at ١٣٥ days from sowing date out-yielded the other dates of foliar sprays while, sugar % and yield decreased with the late dates of foliar spraying.
- In general, the results indicated that early date foliar spray and increasing compound rates led to a decrease in impurities (K, Na and α -amino-N).

**دراسة تأثير جودة مياه الري على بعض الخواص الطبيعية والكيميائية
للتربة لبعض أراضي شمال الدلتا**

EFFECT OF IRRIGATION WATER QUALITY ON SOME SOIL PHYSICAL AND
CHEMICAL PROPERTIES OF SOME NORTH DELTA SOILS

by

Ahmed Mohamed Saad Kheir

Abstract

As a result of shortage of the fresh irrigation water in the North Nile Delta soils of Egypt, a study was conducted to evaluate the effect of irrigation water quality on some soil physical and chemical properties, and to identify the suitability of irrigation water sources for growing the crops, also to detect the optimum time for conductive the tillage operations in this area .

To achieve the aime of the study, one field experiment and another was lysimeter experiments were conducted. in the field experiments, soil profiles were chosen from four locations of soil which irrigated with agricultural drainage water, or agricultural drainage water with sewage water, or agricultural drainage water with factory drainage water and fresh water as a control . lysimeter experiments were conducted with four treatments and three replications, these lysimeter were sowed with barley and maize in ٢٠٠٨ and ٢٠٠٩ for winter and summer season respectively .

Artificial Salinization by (Nacl and $CaCl_2$ solutions) added to soil with irrigation water in acalculated quantities (g/l) . the Ec values were (٢, ٤, ٨ and ١٦ ds/m) and the SAR values were (١٠, ٢٠ and ٣٠). Results concluded that increasing salinity in irrigation water led to increasing, soil salinity, soil hydraulic conductivity, water stable aggregates > 0.25 mm and mean weight diameter, but soil bulk density, soil shear strength, upper plastic limit, lower plastic limit and plasticity index were decreased . the opposite trend was observed in the case of increasing SAR values in irrigation water, where increasing SAR values in irrigation water decreased soil hydraulic conductivity, water stable aggregates > 0.25 mm and mean weight diameter. but soil bulk density, soil shear strength, upper plastic limit, lower plastic limit and plasticity index were increased.

It was also observed that increasing salinity and sodicity in irrigation water led to decreasing the yield and yield components for both the barley and the maize crops, the reduction was significant and highly significant in the maize crop than the barley crop .

دراسات على قوة الهجين والقدرة على التالف لبعض الصفات

في محصول عباد الشمس

STUDIES ON HETEROSIS AND COMBINING ABILITY OF SOME IMPORTANT CHARACTERS IN SUNFLOWER

by

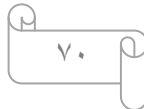
Mohamed Ramadan Fathallah Abou-Mowafy

Abstract

The present work was carried out at Sakha Agricultural Research Station, during ٢٠٠٧, ٢٠٠٨ and ٢٠٠٩ growing seasons. The objective of this investigation was to determine heterosis, G.C.A., S.C.A., types of gene action, heritability and relationship between yield and other characters in sunflower (*Helianthus annuus* L.). Six lines used in this study to produce fifteen crosses during ٢٠٠٧ and ٢٠٠٨. In ٢٠٠٩, randomized complete block design with three replication was used.

The obtained results could be summarized as follows:

١. Genotypes mean squares were significant for all traits.
٢. Mean squares due to parent and crosses were highly significant for all studied traits.
٣. Significant positive heterosis were found in most crosses for seed yield/plant and oil percentage.
٤. G.S.A. and S.C.A. variances were highly significant for all the studied characters.
٥. Significant G.C.A. and S.C.A. effects were obtained for the parents and crosses.
٦. Significant values of additive and dominance components were obtained for all the studied traits.
٧. High heritability estimates in broad sense were recorded for all the studied traits, while lower values of heritability in narrow sense were obtained.
٨. Significant positive estimates of phenotypic correlation coefficient were detected for seed yield/plant and oil content with other characters.



دراسات زراعية على محصول وجودة حبوب القمح

AGRICULTURAL STUDIES ON YIELD AND GRAIN QUALITY OF WHEAT CROP

By

Mohamed Ismel Mostafa Korat

Abstract

Two series experiments were conducted at the Experimental Farm of Agric. Fac., Kafr EL-Sheikh University, in the two successive growing seasons ٢٠٠٥/٢٠٠٦ and ٢٠٠٨/٢٠٠٩ to study the effect of foliar spray with some nutrients, mineral and bio-fertilizers on productivity of wheat cultivar Giza ١٦٨.

Expt. I. Effect of biofertilizer and foliar spray with some nutrients on productivity of wheat cultivar Giza ١٦٨.

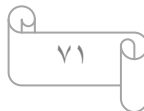
The experimental design was a split-plot design with three replicates. The main plots were assigned to foliar spray treatments (foliar spray with water (control, foliar spray with $ZnSO_4$ (Zn) at rate of ١%, foliar spray with K_2SO_4 (K) at rate of ١%, foliar spray with mixture of (Zn + K at rate of (١:١) %). Biofertilizer treatments were randomly distributed in sub plots (uninoculated) as control, inoculation with Nitrobin, inoculation with Cerealin and inoculation with mixture of Nitrobin and Cerealin. The obtained results can be summarized as follows:

١. Foliar spray with mixture of $ZnSO_4$ (Zn) + K_2SO_4 (K) at rate of (١:١%) significantly recorded the highest values of: number of days to heading, plant height, spike length, weight of ١٠٠٠-grains, number and weight of grains /spike, number of spikes /m², grain, straw and biological yields /fed. as well as harvest index and grains protein content without significant differences with foliar spray by Zn or K alone in most cases.
٢. Inoculation wheat grains by mixture of Nitrobin and Cerealin or by Nitrobin alone gave the highest and significant values of all studied characters without significant differences with inoculation by Cerealin in some cases.
٣. The interaction between foliar spray with some nutrients and inoculation treatment had a significant effect on days to heading, plant height, spike length, weight of ١٠٠٠-grains, number of grains/ spike (in one seasons), number of spikes /m² (in one seasons), biological yield /fed. (in one seasons) and grain protein content.

It can be concluded that foliar spray by $ZnSO_4$ and K_2SO_4 in mixture or alone with inoculation by Nitrobin alone could be recommended for optimum wheat grain yield under these conditions of this investigation.

EXpt. II . Effect of biofertilizer and mineral nitrogen on productivity of wheat cultivar Giza ١٦٨.

The experimental design was a split -plot design with three replicates. The main plots were assigned to mineral nitrogen rates (٠, ٥٠, ٧٥ and ١٠٠ kg N /fed.),



biofertilizer treatments were randomly distributed in sub plots (uninoculated) as control, inoculation with Nitrobin, inoculation with Cerealin and inoculation with mixture of Nitrobin and Cerealin. The obtained results can be summarized as follows:

١. Application of nitrogen fertilizer at the rate of ١٠٠ kg N /fed. significantly increased number of days to heading, plant height, spike length, weight of ١٠٠٠-grains, number and weight of grains /spike, number of spikes /m^٢, grain, biological yields /fed and grain protein content in both seasons of study as well as straw yield and harvest index only in the second season. Nitrogen fertilizer rate of ٧٥ kg N /fed. recorded insignificant results with the highest nitrogen level (١٠٠ kg N /fed.) in most traits under study .
٢. Inoculation wheat grains by mixture of Nitrobin and Cerealin or by Nitrobin alone gave significantly recorded the highest and values of all studied traits, except number and weight of grains /spike in the first season as well as straw yield /fed. and harvest index in the two seasons of study .
٣. The interaction between nitrogen fertilizer rate and inoculation treatment significantly influenced days to heading, plant height, number and weight of grains /spike, number of spikes /m^٢, grain yield /fed. and grain protein content in one season as well as spike length, weight of ١٠٠٠-grains and biological yield /fed. in both seasons of study .

It can be concluded that application of ٧٥ kg N /fed. with inoculation by mixture of Nitrobin and Cerealin or by Nitrobin alone could be recommended for optimum wheat grain yield under these conditions of this investigation.

قسم أمراض النبات

تأثير بعض الطرق البيولوجية في مكافحة نيماتودا تعقد الجذور

على نباتات بنجر السكر

Effect of certain biological methods in controlling Root-knot nematodes on sugar beet plants

by

Azhar Ahmed Saad Abo-Ayanaa

Abstract

Plant-parasitic nematode especially root-knot nematode *Meloidogyne* sp. of sugar beet is consider one of the dangerous pests which cause the large shortage and quality in yield and production of sugars all over the world. This nematode is widely distributed and wide host range in sugar beet. Always using the chemical control of these nematodes causing the risks and threaten to environment and the public healthy to human, also cause the cancer disease and other dangerous disease. So the present study was conducted to exploit the nature's biological potency to have biocontrol against root-knot nematode with no toxic residues.

Survey of root-knot nematode on sugar beet in the different geographical regions in Egypt. *M. javanica* found in Nubaria region and identified the genus of *M. incognita* at the first time in Kafrelsheikh especially in Seedy Salem and other genus in governorate of Kafrelsheikh. Evaluation the effect of garlic on the infected plant by nematode results indicated that this significantly suppressed the percent of egg hatching as well as ability of movement or death the juveniles. efficiency of residues of agriculture crops such as (jojoba and watercress) showed that the highest significant reduced in root galling. Effect of some Egyptian Bionematicide Bio-zeid and Bio-arc Result showed that, in laboratory conditions both concentrations had significant decreased of egg-hatching, immobility and death of second stage juveniles. Efficacy of essential oils in controlling nematode Results conducted that the best one is fennel oil which significant decreasing number of galls, egg-masses and activity of juveniles in soil. Efficacy of bioprocessed materials (bm)(liquid biomass after biogas production without any dilution) and *Pacilomyces* sp. results indicated that bio gas and pa significant decreased the percent of egg hatching as well as significant increased immobility and death of juveniles. Isolation trials from the rhizosphere soil samples from sugar beet fields results showed all fungi were significant decreased in percent of hatching, mobility and death of larva. The bacteria were developed the results showed that the significant decreased in number of galls, rate of egg-masses.

**دراسات سيروولوجية ومقاومة حيوية على الجرب العادي في البطاطس
في مصر**

**SEROLOGICAL STUDIES AND BIOLOGICAL CONTROL
ON COMMON SCAB OF POTATO IN EGYPT**

By

Rehab Ahmed Abou El-Azaem El-Nawsrh

Abstract

The present investigation was conducted to study different methods in the diagnosis and characterization of common scab disease of potatoes.

The experiments revealed the following results:

- ١- Sixteen isolates of *S. scabies* were isolated from different provinces in Egypt from diseased potato tubers, on OMA.
- ٢- Pathogenicity test for common scab isolates were performed on radish seedling and potato and the results was mea after ٩٠ days from inoculaitn and the disease index (DI) was calculated as awell as, the growth of shoot and root off radish seedling was recorded .
- ٣- Morphological, physiological and biochemical characteristics were performed on these isolates, which revealed that all isolates were belonging to *Streptomyces scabies*.
- ٤- Sixteen isolates were equally utilized by the isolates strains of scab as a sol source of carbon
- ٥- Potato cultivars differed in these susceptibility to common scab such as Picasso and Spunta less percentage of infection as compared to other cultivars. As well as, Markies and Dimont were highly susceptibility to common scab while Spunta cultivar was the most susceptibility to scab.
- ٦- The minimum, optimum and maximum pH values reguired for the in vitro growth and sporulation of two strains of *S. scabies* were ٦, ٦.٥, ٧, ٧.٥, ٨, ٨.٥ ٩, and ٩.٥ respectively.
- ٧- All tested bacterial agents (*Bacillus subtilis*) and *Streptomyces* spp. affected the growth of *Streptomyces scabies* in vitro.
- ٨- The most effective isolates on growth of bacterium in vitro were *B. subtilis*, *St. alboniger* respectively. However, *St. aureofaciens* and *St. griseus* showed moderate effect and *St. antribioticus* showed the lowest one.
- ٩- Application of bioagents as soil treatments in pots and seed treatment

- ١٠- The present study was under taken to prepare the antiserum of *S. scabies* for immunological studies with antgen of common scab isolate No. (ST١٢) immunoelectropharesis technique depeuds on the reaction between antigens and its specific antiserum and the similarity between isolates were calculating by using the common antigen.

دور بعض مضادات الأكسدة في إستجابة المقاومة

لنيماتودا تعقد الجذور في الطماطم

ROLE OF CERTAIN ANIOXIDANTS IN INDUCED RESISTANCE AGAINST ROOT-KNOT NEMATODE OF TOMATO

By

Salem Hamden Hassan Hassan Homayed

Abstract

Tomato (*Lycopersicon esculentum* Mill.) is considered one of the most important vegetable crops cultivated in Egypt and in many countries of the world. Plant-parasitic nematodes were subjected to be the most aggressive phytopathogens infected tomato causing great losses in the yield. Due to their toxicity, systemic chemicals which using for controlling different plant diseases were known to be human hazards and environment pollutions. Therefore, need to another effective and environmentally safer technique instead of the chemical control is necessary. So, the present study was conducted to exploit the nature's plant extracts and antioxidants to reach effective agents and at the same time safer on the environment.

Results of the determination of total antioxidants of ٢٠ plant extracts indicated that garlic extract gave high optical density, whereas Henna, pomegranate peel, green tea, and onion extracts considered or classified as moderate optical density. On concerning the effect of the tested plant extracts on disease parameters, results indicated that all the plant extracts decreased either the number of nematode galls by ٧.٤١-٧٩.١٧ % in the susceptible tomato plant cultivar (Castle Rock), whereas the decrease percentage reached ٠.٦٢-٧٤.٢٩ % in the resistant variety (Magic hybrid) or the number of egg-masses in either the susceptible tomato cultivar (٦.٤٤ to ٧٩.١٧%) or in the resistant cultivar (٥.٩٢-٦٩.٣٢%) and nematode egg -hatching after ١٤ days, Data indicated that the optimum spraying date of the tested plant extracts was ٣ days before nematode inoculation, followed by ٧ days before inoculation either in susceptible or resistant tomato cultivars. Spraying of (SA) and (AA) decreased number of nematode galls/root system in all spraying dates especially ٣ days before nematode inoculation in either susceptible or resistant cultivars. Salicylic acid was most effective on second-stage juveniles during the exposure period)till ٩ days (reaching inactive juveniles to ١٠٠ % at the end of ٧ days followed by ascorbic acid reached ١٠٠ % at ٩ days compared with control (water only, ٣١.٩%). The present results indicated that garlic extract was the most effective on the activity of peroxidase ,superoxide dismutase, polyphenol oxidase and total phenolic compounds. on susceptible tomato cultivar(Castel Rock)after ٩ days followed by pomegranate peel after ٧ days, while in the resistant cultivar(Magic Hybrid) increased the activity after ٩ days followed by

Pomegranate peel while the most activity of henna extract , green tea extract and onion extract after ٧ days . Salicylic acid (SA) was found to be the most effective one on activity of polyphenol oxidase (PPO) enzyme on susceptible tomato cultivar (Castel Rock) after ٧ days followed by ascorbic acid(AA) after ٧ days, while in the resistant cultivar (Magic hybrid) salicylic acid (SA) was the most increased activity of polyphenol oxidase (PPO) enzyme after ٩ days followed by ascorbic acid (AA) after ٧ days. The present data emphasize that PPO activity of tomato resistant cultivar roots infected with *M. incognita* was considerably higher than the susceptible plants, and PPO activity reached the highest percentage after ١ day from nematode inoculation . Treatment of the infected plants with ascorbic acid or salicylic acid increased PPO by ١٢ % and ١٠.١ % respectively. On concerning the total phenolic compounds efficiency of salicylic acid (SA) was the most one on increase total phenolic compounds on susceptible tomato cultivar (Castel Rock) after ٩ days followed by ascorbic acid(AA), while in the resistant cultivar (Magic hybrid) salicylic acid (SA) was after ٧ days, followed by ascorbic acid(AA) after ٩ days .Data presented that, salicylic acid (SA) was the most effective one on activity of superoxide dismutase (SOD) enzyme on susceptible tomato cultivar (Castel Rock) after ٩ days followed by ascorbic acid (AA), while in the resistant cultivar (Magic hybrid) salicylic acid (SA) was the most increased activity of superoxide dismutase (SOD) enzyme after ٩ days, followed by ascorbic acid (AA) after ١١ days .

دراسات على مرض البقعة السوداء على حبوب القمح في مصر

STUDIES ON BLACK SPOT DISEASE ON WHEAT GRAINS IN EGYPT

By

Hend Abd El-Naby Mohamed Omar

Abstract

Wheat (*Triticum aestivum* L.) is the most important winter cereal crop in Egypt in terms of planted area and crop production. In Egypt, pathogens associated with wheat kernel black-point disease has become the most serious problems of wheat, causing losses in quality of wheat grain yield. Environmental side effects of fungicides and resistance of pathogens against fungicides stimulate search for other methods. In recent years biological control methods have increased attention as a promising alternative to chemical control ones.

The obtained results could be summarized as following:

- ١- Survey of kernel black-point disease on wheat cultivars from different Governorates revealed that the as the rate of infection with the disease ranged from (٢.٣ to ٥٩.٣ %), grains of the wheat cultivars commonly grown in the Nile-Delta Governorates showed higher parameters to the black-point disease than the wheat cultivars commonly grown in the Governorates of upper Egypt.
- ٢- The isolated pathogen of black-point disease were identified as *Alternaria alternata*, *Helminthosporium sorokiniana*, *Fusarium moniliforme*, *Asperigillus flavus*, *A. niger*, *Penicillium* sp. and *Epicoccum* sp. and *Alternaria alternata* which recorded most highly frequent.
- ٣- Relative power of antibiosis (RPA) of bacterial showing antagonistic effect against the causal pathogen of the kernel black-point disease appearing two isolates as bacteria, *Bacillus subtilis* ١, *Bacillus subtilis* ٢ and two isolates of fungi, *Trichoderma harzianum* and *T. virede*.
- ٤- The Germination testing of different wheat cultivars showing higher germination of effected grains and length of shoot and root, and dry weight. Effect of cultural filtrate pathogens were used in this study *A. alternata*, *H. sorokiniana* and *F. moniliforme* at three concentrations, fungi grow on media at two time at ٢٠ days and ٣٠ days. Data showing highly effected of rate germination at pathogen *A. alternata* on length of both shoots and length of roots.
- ٥- Biological control for bioagents against black-point fungi in green house of two methods (spray and injection) showing isolate *B. subtilis* ٢ decreased of infection (٠.٦٧ – ١٩٠ % respectively) compared with control (non inoculated) (٩.٣٣ %),

isolates of *T. virede* appearing highly effected of decreased of infection rate by two methods, injection and spray (٠.٣٣ – ٥.٦٧, resp.). isolates of bioagents showing significantly in parameters of yield (١٠٠٠ weight) *T. virede*, *T. harzianum*, *Bacillus subtilis* ١ and *Bacillus subtilis* ٢ to (٣٣.٩٠, ٤٢.٣٦, ٣٥.٨٣, and ٢٣.٤٣ gm resp.) (٢٣.٣٣, ٢٣.٤٦, ٢٢.٦٠, and ٦.٥٦, resp.) fungicides sumi-٨ gave data in two methods injection and spray followed (٣١.٠٠ and ٢٣.٤٦, respectively).

- ٦- Under field conditions, the tested antagonistic isolates *Bacillus subtilis* ١, *B. subtilis* ٢, Mixture, *T. virede*, *T. harzianum*. Compost tea compared fungicides sumi-٨ to spray at booting stage data showing that isolates *B. subtilis* ١ and *T. harzianum* highly effected for infection rate of (٧٢.٧ and ٦٤.٨٦ respectively, sumi-٨ appearing highly significantly (٥٣.٧٤%).
- ٧- Antagonistic isolates decreased the disease incidence, the isolate *Bacillus subtilis* ١ and mixture (٦.٠٣ and ١٥.٢٣ %) compared with control (non inoculated) (٢٣.١٣ %) to the chemical fungicide sumi-٨ (١٠.٦٧).
- ٨- Regarding to the grain yield parameters that biocontrol agents significantly increased of wheat grains as ١٠٠٠ kernel weight compost tea and isolates *T. harzianum* (٦٤.٥٠ – ٦٣.٨٠ gm) compared with the fungicides sumi-٨ (٦٤.٥٧ gm) and control (non inoculated) (٦٠.٩٣ gm).
- ٩- Weight of discoloration grains of black-point the rate of discoloration in isolates *T. virede* and *Bacillus subtilis* ١ (١٦٦.٠٠ – ١٧٢.٦٠ gm respectively) compared with control (٢٦٨.٥٤ gm) fungicides sumi-٨ (٢٠٩.٨٠ gm).

قسم تكنولوجيا الأغذية

دراسات كيميائية وبيولوجية على بعض الأغذية المخفضة لسكر الدم

CHEMICAL AND TECHNOLOGICAL STUDIES ON SOME FOODS

By

Gamal Saad Mohamed Elhadidy

Abstract

This investigation was aimed to use some legumes (sweet white lupin and chickpea seeds), and medicine plants (ginger rhizomes and cinnamon bark) for decreasing blood sugar and cholesterol. The results of the chemical composition of the tested materials, revealed that soaked lupin seeds and cooked chickpea seeds were found to be a high source of protein and which contain a high level of hypoglycemic amino acids such as lysine and arginine. Also, ginger and cinnamon were high source of phenolic compounds. The results showed that soaked lupin seeds and cooked chickpea seeds can be added to replace up to ١٠ and ٢٠% of basal diet respectively. Diabetic rats were fed for ٥ weeks on the basal diet (control ١) and (control ٢) diabetic rats and on diets substituted in a part with ١٠, ٢٠% soaked lupin and cooked chickpea, ١, ٢ % ginger rhizomes and ١, ٢% cinnamon bark the results showed that supplementing the hyperglycemia-producing diets with the four additive materials had significant reduction in serum glucose, lipid profile (TC, TG, LDL, VLDL, TL), Meanwhile, HDL cholesterol increased with all treatments, Significant decrease in ALT, AST, Urea, Uric acid and Creatinine values, in respect to positive control were also observed.

تحسين خواص زيت بذرة الكتان بواسطة بعض العمليات التكنولوجية

IMPROVEMENT OF FLAXSEED OIL PROPERTIES BY SOME TECHNOLOGICAL PROCESSES

By

Reyad yhia Reyad Halwaz

Abstract

This study was carried out to improvement of flaxseed oil properties by some technological processes; increase heat stability and functionality of flaxseed oil which was produced annually in large quantities in Egypt. Since the local demand for oils far exceeds its production. The aim of this study is searching the possibility to improvement of flaxseed oil properties by some technological processes to increase heat stability and functionality of flaxseed oil (locally produced oil) to be more suitable for technological purposes such as frying. There by it could reduce the burden of oils imports on the foreign exchange at the same time utilize the health beneficial of flaxseed oil. Flaxseed oil is a good healthy source of oil. It is rich in linolenic acid thus the oil is susceptible to oxidation.

The blending of flaxseed oil with palm oil and chemical interesterification treatment could reduce its content of linolenic acid. It could be concluded that these oils after treatments as an important source of edible oil and recommended to use these oils for human consumption as edible oils.

دراسات كيميائية وتكنولوجية على التين الشوكي وتأثيره على مرضي السكر

Chemical and Technological Studies on Opuntia Ficus Indica and its Effect on Diabetics
by
Rowida Younis Essa

Abstract

Diabetes mellitus is the most wide spread disease and it is considered to be one of the five leading causes of death in the world. The global prevalence of diabetes mellitus for all age groups was estimated to be ٢.٨% in ٢٠٠٠ and is projected to rise to ٤.٤% in ٢٠٣٠. In Egypt by the year ٢٠٢٥. Between ١٩٩٥ and ٢٠٢٥, the number of people with diabetes ٦٥ years of age will increase ٣.٦ times, from approximately ٥١٥ ٠٠٠ to ١.٨٧ million. So, it was necessary to formulate some special food items for diabetics.

The present study was performed figure out the possibility of using prickly pear fruit and preparing some foods for diabetic patients and the efficiency of prickly pear fruit, seedless pulp, oil extracted from seed and seed meal on lowering the blood glucose levels as well as different lipid parameters.

Results obtained :

- The chemical analysis showed that the crude fiber content was ٥٥.٩٩% and ٥٤.٧١% in prickly pear seeds and peels, respectively. So that they have a high content of cellulose, hemicellulose, pectin and lignin. On the other hand, prickly pear seedless pulp was higher in total carbohydrate.
- The Organoleptic evaluation results of produced cocktail and jelly showed that the Prickly pear : guava cocktail (١:١)(W/W) and jelly processed by mixing ratio (١:١)W/W Prickly pear : Strawberry were the best one in the studied samples meanwhile, all investigated samples were accepted.

Biological experiment results:

- The obtained results showed that adding different levels of prickly pear seedless pulp, seed oil, seed meal and prickly pear fruit to diabetic rats diets caused a reduction in (blood glucose levels, plasma total cholesterol and LDL-C) and increase in (final body weight- liver, kidney and pancreas relative weight – HDL-C) in diabetic rats feed on investigated materials during the experimental period (٦ weeks).
- The obtained results showed that the best results in this study was feeding rats on diet contained ٢.٥ % prickly pear seed meal which caused a high reduction in (blood glucose levels, plasma total cholesterol and LDL-C) and a high increase in (final body

weight - liver, kidney and pancreas relative weight - HDL-C) comparing with their levels in diabetic rats feed on other investigated materials during the experimental period (٦ weeks).

- The histological results showed that rats fed on diet contained ٢.٥ % prickly pear seed meal liver and pancreas sections were similar to control group which feed on basal diets.

الإستفادة من مصاصة القصب في إنتاج حامض الستريك بواسطة الفطريات

Utilization of Sugarcane Bagasse for Citric acid Production by Fungi
by
El-Shahat Gomaa El-Dreny Hessain

Abstract

The present work was carried out to evaluate the potential use of sugarcane bagasse waste as a substrate for citric acid production by *A. niger* using solid-state and submerged fermentation methods and to avoid environmental harmful side effects resulted from getting rid of these wastes, as well. Proximate chemical composition of sugarcane bagasse was. The obtained results revealed that sugarcane bagasse contains: ٢.٣٤% crude protein, ٠.٦٨% ether extract, ٣.٥٩% ash, ١٧.٦٢% lignin, ٤٣.٧٢% cellulose, ٢٨.٤٩% hemicellulose and ٢.٥٧% total soluble sugar. Acid hydrolysis of sugarcane bagasse was proposed to hydrolyze cellulose and hemicellulose to produce reducing sugar. The obtained optimum conditions for citric acid production were ١٦% reduced sugar concentration, ٠.٠٥% NH_4NO_3 w/v as a nitrogen source, ٦٥% v/w moisture content, at temperature ٣٠°C, pH ٤ and fermentation period for ٧ days. The best of stimulative factors on citric acid production were ١% methanol, ١% ethanol, and some types of edible oils. The maximum production of citric acid (٤.٨٣g/١٠٠g) was obtained by *A. niger* ATCC ١٠٥٧٧ when it was cultivated on the optimized waste medium at ٣٠°C for ٧ days in solid-state fermentation. Different concentration of both commercial and produced citric acid were used for preparing. Organoleptic evaluation for appearance, color, odor and taste was determined. Results of organoleptic evaluation indicated that the Guava juice, Strawberry jams and strawberry jellies contained produced citric acid by *A. niger* in concentration (٠.٢%, ٠.٣%, ٠.٤%), respectively were acceptable, where the organoleptic properties of were nearly similar to those of commercial citric acid.

ثانياً : الدكتوراة

قسم الأراضى

إستجابة محصول القمح للتسميد الأزوتى والبوتاسى والحيوي

تحت ظروف الأراضى المتأثرة بالأملاح

Response of Wheat Yield to Fertilization by Nitrogen, Potassium and Biofertilizers
in Salt Affected Soils

by

Mohamed Awad Amer Megahed

Summary

The objective of the present investigation was to study, in farmers fields, the effects of N and K levels and biofertilization on yield and its components as well as chemical composition of the plant at different growth stages. The main plots were assigned to nitrogen levels : ٠, ٤٠, ٨٠, ١٢٠ and ١٤٠ kgN/feddan, the sub plots were subjected to the two level of potassium (٠ and ٥٠ kg k₂O/feddan), sub-sub plot were subjected to treatment inoculation with nitroben, phosphorien, nitroben plus phosphorien and without inoculation as control. The Sub-sub-sub plot were subjected to the two levels of micronutrients with cotoongen and without application. Grain yield of wheat cv.Sakha ٩٤ decreased significantly with increasing soil salinity. The data recorded decrease in grain yield by about ١٣.٧٤% and ٢٤.١١% of the mean value for moderately and highly saline soil as compared with normal soil .

علاج وإعادة استخدام المياه الملوثة بالعناصر الثقيلة

Amelioration, Rehabilitation And Reuse of Heavy Metal Polluted Waste Waters

By

Mohamed Ibrahim Assy Heba

Abstract

To investigate the effectiveness and feasibility of some low-cost, available agricultural by-products, and biological materials for heavy metals sorption to produce more safe water resources. Some experiments for purification and improvement the quality of heavy metals polluted waters were done using many tested materials.

To achieve the aim of this study some materials were used as follow:

Inorganic adsorption materials specially clay minerals for removing heavy metals. Organic materials for removing of heavy metals from the artificial polluted waters. Adsorbent material on the purification of drainage water in El-Gharbia main drain and removal of Cd, Co, Cu, Zn and Ni metal ions

The main results were as follow:

- Because of annually increase of water shortage in Egypt, over ٧ billion cubic meters (BCM) of drainage water is reused in the Nile Delta and another ٤.٧ BCM of agricultural drainage water returns to the Nile upstream of Cairo in addition to ٣ BCM of drainage water annually and illegally apply directly to farmers fields , such water have many sources of pollution including heavy metals.
- Accordingly, the results of this study find out an economic and easy solution to minimize or remove the hazard effects of heavy metals pollution to enable the safe reuse of such water in any purposes.
- Ca-Sinai shale (common name is Taffla) is very efficient in removing heavy metals in different anion forms combined with very low requirements and costs for purification and improvement of the quality of polluted waters. Vermiculite and animal charcoal came in the second order because of the relatively high cost more than Sinai shale.
- Organic materials (internal apricot seeds) can be safely used with adsorbent materials, compared to K-alum which caused health hazard effect.

قسم الإنتاج الحيوانى

تأثير إحلال حبوب الذرة بحبوب الشعير على أداء الأرانب النامية

EFFECT OF PARTIAL REPLACING CORN GRAIN BY BARLEY GRAIN ON PERFORMANCE OF GROWING RABBITS

By

Maha Zaghlool Dakrouri Ahmed

Summary and conclusion

This work was carried out at Rabbit Research Laboratory, while the chemical analysis was performed at the Laboratory of Animal Nutrition Department of Animal Production, Faculty of Agriculture (El-Shatby), Alexandria University, Alexandria, Egypt. The better feed conversion was obtained in group fed diet contain ٢٠% barley followed by those fed diets contain ١٥ or ٢٥ barley. The highest feed conversion value was shown in groups fed the control diet or diet contain ٥% barley. The viability in the experimental groups fed diets contain ١٠, ١٥ or ٢٠% barley were higher than those fed diets contain ٠, ٥, ٢٥% barley. It in the perslaughter weight, hot carcass weight, cold carcass weight and dressing percentage were significantly differed among the experiment groups and the rabbits fed diet contain ٢٠% barley had the better values than other experimental groups. No significant differences were obtained among the experimental groups in carcass drip loss weight, fur, liver, kidneys, spleen, gallbladder, heart, lings + trachea, digestive tract (full and empty) and secum + appendinx (full and empty). The addition of barley in growing rabbit diets increased the economical efficiency%. The highest economical efficiency% was obtained in group fed diet contain ٢٠% barley.

تقييم العلائق المضاف إليها الإنزيمات المحللة للألياف

على أداء الأبقار الحلابة

EVALUATION OF RATIONS SUPPLEMENTED WITH FIBROLYTIC ENZYMES OF DAIRY COWS PERFO

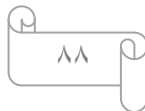
By

Mohamed Ahmed Hassan Elshora

Abstract

Three multiparous Friesian cows were used for studying degradability of the three sample of feedstuff (CFM, BH, SBTH, CS, RS, WS, ٦٠% and ٤٠% CFM + (BH, SBTH, CS, RS, WS) with (٠, ١, ١.٥ g enzymes). The ruminal degradability of DM, CP, CF and fiber fractions for three samples of feed stuff were determined by in situ technique.

Fibrolytic enzyme treated feedstuffs led to significant ($P < 0.05$) increase in the rapid and potential degradable fractions, degradation rate and the outflow rate of degradable DM, CF and CP at ٢, ٥ and ٨% hour from the rumen and significant ($P < 0.05$) decrease in the undegradable fraction. The enzyme level of ١ g /kg showed significantly ($P < 0.05$) the highest rapid and potential degradable fractions, degradation rate and the outflow rate of degradable DM, CF and CP at ٢, ٥ and ٨% hour from the rumen and the lowest undegradable fraction followed by the level of ١.٥ g / kg, while untreated feedstuffs had opposite trend. Thirty lactating Friesian cows averaged 500 ± 25 kg live body weight and at ٢ to ٥ lactation season were used for ٢٠ weeks postpartum were used in this study. Cows were randomly divided into six similar groups (٥ cows each) according to milk production, parity and LBW. Cow groups were assigned to be fed one the following experimental rations:- (٤٠% berseem hay (BH) + ٦٠% concentrate mixture, CM); with ١ g fibrolytic enzymes/١ kg dry matter or without enzymes, (٤٠% corn silage (CS) + ٦٠% concentrate mixture, CM); with ١ g fibrolytic enzymes/١ kg dry matter or without enzymes, and (٤٠% rice straw + ٦٠% concentrate mixture, CM); with ١ g fibrolytic enzymes/١ kg dry matter or without enzymes, The enzymes was diluted with water at ١٠٠ and ١٥٠ g / liter for the levels of ١ and ١.٥ g / kg, respectively and sprayed with ١٠ ml per kg of ground feedstuffs and experimental rations according to the procedure stated by Kung et al. (٢٠٠٢). Results indicated that, most of nutrient digestibility and nutritive values were improved ($P < 0.05$) by fibrolytic enzymes supplementation in both BH, CS and RS compared to untreated rations. Found significant differences were observed among tested rations for ruminal PH values, while $\text{NH}_3\text{-N}$ concentration decreased ($P < 0.05$) for treated ration compared to untreated. Total VFA was increased ($P < 0.05$) for ration supplemented with enzymes compared to untrated rations. Fibrolytic enzymes supplementation improved ($P < 0.05$)



both actual and FCM yields by ١٧.٧٢ and ١٦.٠١%, respectively for cows fed BH with enzymes compared to those fed BH without enzymes and improved by ١٧.١٧ and ١٤.٩٣% for CS,RS with enzymes compared to without enzymes. Also, FCM yields increased by ١٦.٣٩ and ١٣.٦١% for CS, RS compared to without enzymes. Most of milk component yields were higher ($P<٠.٠٥$) for cows fed ration treated with enzymes. Feed cost as LE/kg FCM decreased by ٨.٠٠ and ٨.١٤% for cows fed ration treated with enzymes compared to without enzymes. Economic return as LE/h/d increased by ٢٤.٣٢ and ٢٢.٢١% for cows fed ration treated with enzymes compared to without enzymes.

تركيز هرمون اللبتين أثناء الفترة الأخيرة من الحمل وفترة الحليب المبكرة

في أبقار الفريزيان

Leptin hormone concentration during the late gestation and early lactation periods
in Friesian cows

by

Yasser Salah Hussein

Abstract

A total number of ten multiparous Friesian cows at last one or two months of pregnancy were used. They were ranging from the second to the fourth parities, and their age ranged between three to six years. The average weight of cows was 459.0 ± 43.9 kg at parturition. All cows were milked twice daily; and fat corrected milk based on 3.5% was estimated. In addition, all blood constituents were measured colorimetrically meanwhile direct single antibody radioimmunoassay (RIA) technique was performed for plasma triiodothyronine (T_r) whereas leptin (Lep) analysis was; done using DRG® leptin (Sandwich) ELISA. The aim of this study was to determine plasma leptin ($pLep$) concentration of Friesian dairy cows throughout one month before parturition and during early lactation period till peak lactation; and its relation to body weight, body condition score, some blood metabolites, productive and reproductive status. The days postpartum (DPP) significantly affects most of plasma variables except plasma leptin and T_r . Meanwhile milk leptin ($mLep$) was significantly affected by DPP ($P < 0.0528$). In addition $pLep$ concentration started to decrease one month pre-partum and reached 3.29 ng/dl at parturition and continued in low level; during postpartum period and reached its minimum at 60 DPP (2.71 ng/dl). Plasma leptin concentration correlated positively with plasma cholesterol ($r = 0.31$; $P < 0.0173$) and negatively with milk solids not-fat percent ($r = -0.34$; $P < 0.0274$), solid not-fat yield ($r = -0.26$; $P < 0.0985$) and milk protein yield ($r = -0.28$; $P < 0.0695$). In addition to the significant correlation between milk serum leptin concentrations and plasma glucose concentrations which was $r = 0.39$; $P < 0.0415$. Otherwise milk serum leptin did not show notable correlations with milk constituents. Plasma leptin concentration of the cows was higher in the second and fourth parities than that of the third parity cows. Calving intervals and days open are increased in cows in the 3rd than those in the 2nd and 4th parities. Moreover, correlation coefficients of milk yield and milk components among plasma constituents were estimated. Current data revealed that there is an insignificant negative correlation between plasma leptin and milk serum leptin concentrations ($r = -0.09$). Using simple linear regression, regression coefficient estimates were obtained for $pLep$ as regressed by $mLep$ and its reverse.

استخدام البروتينات الدهنية منخفضة الكثافة و الجلوتامين لتحسين السائل المنوي المجمد للجواموس

Use Of Low Density Lipoproteins And Glutamine To Improve Frozen Buffalo Bull
Semen

by

Mohamed EL-Sayed Abo EL-Yazeid EL-Sharawy

Abstract

Egg low-density lipoprotein (LDL) and glutamine (Gln) have been used in the composition of semen extenders in several species, but never in the buffalo bull. The aim of present study is to demonstrate the cryoprotective role of LDL and glutamine for cooling and freezing buffalo bull semen and its effects on the percentage of progressive motility, live, abnormal, and acrosome and membrane integrities of sperm following freezing, cooling at 5°C for up to 96 h and at room temperature (15-25°C) for up to 72 h.

Three experiments were carried out on collected ejaculates from three buffalo bulls. In the first experiment, whole egg yolk 20% in Tris extender was replaced by different concentrations of 4, 6, 8, 10, 12 and 15% LDL. In the second experiment glutamine was added to the Tris egg yolk extender at 20, 40, 60, 80, and 100 mM. In the third experiment, in taking into account the results of Exp. 1 and Exp. 2, glutamine was added to the 12% LDL (optimal level in Exp. 1), at the following low concentrations 10, 20, 30, 40, 50 and 60 mM. Experiment 1 demonstrated that diluents based on LDL give higher proportions and the 12% LDL medium enhanced buffalo freezability and give higher conception rate {72.7% vs. 50% for control(20 % egg yolk)}. Experiment 2 demonstrated that the addition of glutamine at 20, 40 and 60 mM to the Tris egg yolk extender significantly ($P < 0.05$) improved cryopreservation of buffalo semen and conception rate (72.2, 64.3 and 60%, respectively). Experiment 3 demonstrated that the addition of 10, 20 and 30 mM of glutamine to the 12 % LDL extender lead to an improvement of quality of buffalo frozen semen and offer higher conception rates (72.2, 73.3 and 66.6%, respectively).

In conclusion, the present results have been enabled to define a suitable extender for freezing buffalo sperm (Tris supplemented with 12% LDL and 10 - 30 mM glutamine) without egg yolk and with cryopreservation qualities that are at least as much better as those of a widely used reference extender.

Keywords: Buffalo bull semen; Cryopreservation; Semen characteristics; LDL extender; Glutamine.

دراسات غذائية و فسيولوجية على اسماك القراميط الفريقية
nutritional and physiological studies on african catfish

Summary

Two feeding experiments were carried out during seasons ٢٠٠٤ and ٢٠٠٥ in a private fish farm in Kafr El-Sheikh governorate. Concrete tanks with dimensions $٧ \times ٢.٥ \times ١$ m^٣ were used at three tanks (replicates) / treatment. Water outflow was ١٥ l / min. Water was continually aerated. African catfish, *Clarias gareipinus*, fingerlings of ٥٠ and ١٦ g initial body weight, respectively were stocked at ٥٠ fish /tank being disinfected and acclimated. Fish were fed ٢ meals daily at a daily feeding rate of ٥ % of body mass on ٣٢ % crude protein diets. The present study was designed to evaluate the effects of two commercial forms of hormones on induced propagation traits of African catfish. Broodstocks were divided into two groups, ٦ female in each, one was injected intramuscularly with ٣ ml (٤٥٠٠ IU) Pregnyl® and the other was injected with one ml (٤٠ µg) Receptal®. After ١٦ hrs all females were stripped individually to obtain the eggs, while the males were killed to obtain the testes. The fertilized eggs of each brooder were incubated individually. Conclusively, skip a day as a restriction feeding system may be considered as a good feeding regime from the view point of economy. Also, ٢٥ % replacement level of fish meal protein by feather meal protein was beneficial. Conclusively, Pregnyl® have higher potent than Receptal® in the artificial propagation of African catfish.

قسم الحشرات الإقتصادية

دراسات بيئية وحيوية على بعض حشرات نباتات بنجر السكر فى محافظة كفرالشيخ

Ecological and biological studies on some insects of sugar beet plants at
Kafr El-Sheikh Governorate

By

Amal Bahgat Abou-ElKassem

Abstract

December plantation recorded the highest mean numbers of *P. mixta* immature stages; while September plantation gave the lowest mean numbers. September plantation gave the lowest mean number of *C. vittata* as ١٧.٨ larvae. In December plantation (late plantation) the highest mean number of *C. vittata*. September plantation (early plantation) the lowest mean number of *S. ocellatella*. While December plantation appeared the highest mean number. Results show that eggs of *P. mixta* began to appear on November ٥th with few numbers. The number of the eggs had five peaks during the two seasons ٢٠٠٣/٠٤ and ٢٠٠٤/٠٥. In the first season, one peak of both larvae and pupae of *C. vittata* were recorded on April ٣rd. As for adult stage, it was observed that one peak. In the second season,, one peak of both larval and pupal stage was found. Data revealed that *S. ocellatella* had two peaks of abundance in the first season. In the second season, three peaks of abundance were found. The number of the eggs of *P. mixta* had three peaks during the first season. In the second season ٢٠٠٤/٠٥ the number of the eggs had two peaks. The number of larvae formed three peaks in the first season. While, in the second season *P. mixta* larvae had one peak. The number of larvae gradually increased till reached ٦٤ larvae/٥ plants to constitute the highest peak in the ٥th April of the first season. In the second season, the number of larvae had two peaks. One peak for pupal stages. Also, adults of *C. vittata* had one peak in the two seasons of study. Results showed that *S. ocellatella* larvae had one peak of in the first and second season.

The results indicated that, the highest general mean of eggs, larvae and blotches of *P. mixta* was recorded on Farida variety. It be observed that LaDos and Oscar poly varieties demonstrated the lowest to *P. mixta* infestation on the basis of general number of larval stage. Farida variety was found to be the most prefer and attractive for both larvae and adults of *C. vittata*. Beta ٨٠١ and LaDos varieties were considered the lowest infestation. LaDos variety had the highest general mean of *S. ocellatella* larvae. Also, results revealed that Farida and Beta ٨٠١ varieties had the lowest general mean of the larval stage.

Data presented showed influence of urea fertilizer levels on the mean number and general mean number of eggs, larvae and blotches of *P. mixta* insect during the two seasons of study. In the case of increasing urea fertilizer level to ١١٠ kg N/fed. led to decrease general mean number of eggs, larvae and blotches of *P. mixta* to the minimum. Data reveal the effect of urea fertilizer level on the mean number and general mean number of larvae, pupae and adults of *C. vittata* insect attacking sugar beet plants during the two seasons of ٢٠٠٣/٠٤ and ٢٠٠٤/٠٥. It may be concluded that supplying sugar beet plants with urea fertilizer at rates of ٤٦ and ٩٠ kg/fed. caused significant decrease in general mean number of larvae, pupae and adults of *C. vittata* insect. Data indicate the impact of urea fertilizer levels on the mean number and general mean number of *S. ocellatella* larvae during the two seasons of study. It could be reported that increasing urea fertilizer level. Caused significant decrease in the general mean number of *S. ocellatella* larvae.

Parasitism caused by *O. nitidulator* on *P. mixta* larvae in sugar beet plants ranged from ٠.٦ % at the first week of April ٢٠٠٥ to ٣٤ % at the first week of March. The number of the parasitoid and parasitism of *O. nitidulator* increased gradually to reach high peak of parasitism ٣٤ % in the first week of March, the average of parasitism during the second season ٧.٨ %. It could be reported that Dipel ٢X and Biofly, used as a biocide preparation was mainly effective ٧, ١٢ and ١٥ days after application against *P. mixta* and *C. vittata*. Selecron was more efficient against *P. mixta* and *C. vittata* population in a period from ٢٤ hr to ١٥ days after application.

Total leaf area consumed (٨٢٥٦.٤ mm^٢) by a single larva of *S. littoralis* during the whole larval stage. Data also, indicated that the total leaf area of sugar beet foliage necessary for *P. mixta* larva to complete its larval stage is ١٤١٦.٢٥ mm^٢. Data reveal that the total sugar beet leaf area consumed by a single larva of the tortoise beetle, *C. vittata* throughout the whole period which lasted ١٦ days, was ٤٥٨.٢ mm^٢. Results revealed that leaf area loss of sugar beet plants during the activity period (١st November) of *S. littoralis* had a negative effect on root yield, percent of sucrose and sugar yield. Reduction root yield and sugar yield increased gradually with increasing leaf area removal during the time corresponded with both of the third generation (G^٣) and fourth generation (G^٤) of *P. mixta* in sugar beet fields. The theoretical economic injury level of *P. mixta* during two dates of defoliation in this season may be ٤٧.٩ and ١٣٠.٠ larva/plant, respectively. The economic threshold levels were ٤١.٣ and ٧٤.٧ larvae/plant during G^٣ and G^٤ in ٢٠٠٣/٠٤ while those of ٢٠٠٤/٠٥ were ٤٣.١ and ١١٧.٠ larvae/plant. Economic injury levels as visual estimation for *P. mixta* infestation during G^٣ and G^٤ during ٢٠٠٣/٠٤ recorded ٢٢.٤ and ٢٧.٧ % damaged leaf area/plant, for economic levels were ٢٠.٢ and ٢٤.٩ %, respectively. In ٢٠٠٤/٠٥ season, these values were ١٨.٧ and ٢٦.٧ % damaged leaf area/plant.

قسم المبيدات

المكافحة المتكاملة للهاووك في حقول الفول البلدى

INTEGRATED BROOMRAPE CONTROL IN FABA BEAN FIELDS

By

Mohamed Emad Zaki Ahmed Kenapar

Abstract

Integrated Broomrape Control In Faba Bean Fields.

This work deal with the effects of preceding summer crops and some weed control treatments on broomrape and faba bean yield. Also, efficacy of (*Phytomyza orobanchia*) as biological control for broomrape in faba bean fields. This study also, includes the effect pesticides at different concentrations on flies of (*Phytomyza orobanchia*) and effect of root extractes of some crops on the germination of (*O. crenata*) seeds. These experiments, were conducted at field and laboratory.

The field experiments included:

١- Effect of preceding summer crops on broomrape characters:-

Preceding summer crops had significant effect on number of broomrape spikes/m^٢, broomrape spikes/plant, number of capsules/ broomrape spikes, broomrape spikes length and fresh, dry weight of broomrape spikes/m^٢ in both growing seasons, where, sowing faba bean after maize and rice significantly reduced number of broomrape as compared to sowing after cotton.

٢- Effect of preceding summer crops on faba bean yield and its components:

Sowing faba bean after maize increased number, fresh and dry weight of pods/plant and seed yield (ardab/fed.) followed by sowing after rice as compared to sowing after cotton. Results indicated that preceding summer crops (maize, rice and cotton) were had no significant effect on number of branches/plant, fresh and dry weight/plant in both growing seasons as compared to untreated control.

٣- Effect of broomrape control treatments on broomrape characters:

Herbicides (glyphosate at rate ٣٦ g, a.i./fed. and imazapic at rate ٢g, a.i./fed.) recorded high decrease in numbers, spike length, fresh and dry weight of broomrape spikes/m^٢ or per plant, followed by hand pulling as compared to untreated control.

٤- Effect of broomrape control treatments on yield of faba bean and its components:

Broomrape control treatments increased number of branches/plant, number of pods/plant, weight of ١٠٠ seeds and seed yield (ardab/fed.) in both growing seasons. Hand pulling gave the lowest values of faba bean yield and its component as compared to herbicides treatments.

٥- **Effect of *phytomyza orobanchia* on broomrape in faba bean fields:**

Data indicated that releasing *P. orobanchia* at ١٠٠ and ١٥٠٠ flies/fed. (alone) did not affect number of broomrape spike/m² and fresh and dry weight of broomrape spike. While significantly affected number of broomrape capsules/plant and weight of seeds/spike as compared to control treatment. Data revealed also that releasing *P. orobanchia* (alone) did not increase the faba bean yield and its components. While, its releasing combined with herbicides (glyphosate or imazapic) caused increase in seed yield (٨٤ and ٨٣%) in both seasons.

The laboratory experiments:

١- **Effect of pesticides on *Phytomyza orobanchia* adults:**

The results showed that the adult females of *P. orobanchia* were strongly affected by the insecticide malathion while, they were not affected by the herbicides (glyphosate or imazapic). It was observed that this effect differed by the difference of herbicide concentrations and incubation periods.

٢- **Effect of plants extracts on the germination of broomrape seeds:**

Plant extracts from roots (maize, flax and faba bean) by warm water, ethyl acetate and acetone showed different effects on germination of broomrape seeds where, root extracts of faba bean gave highest values of germination percentage of broomrape seeds, followed by root extracts of flax, while root extracts of maize gave lowest values of germination percentage of broomrape seeds.

Generally, it could be recommended that sowing faba bean after maize or rice as agricultural control caused reduction in broomrape density, with the use of herbicides (glyphosate at rate ٣٦ g, a.i./fed. or imazapic at ٢ g, a.i./fed.) as post-emergence chemical control of broomrape, as well as *P. orobanchia* as biological control gave the highest reduction in broomrape injury and increased faba bean yield and its components.

**خصائص الإيابة الفطرية لبعض المبيدات الفطرية والمستخلصات
النباتية والعوامل الحيوية ضد فطريات البياض الزغبى والدقيقى على
محصولي الخيار والقرع**

FUNGICIDAL ACTIVITY OF SOME FUNGICIDES, PLANT EXTRACTS AND
BIOAGENTS AGAINST BOTH POWDERY AND DOWNY MILDEW DISEASES
ON CUCUMBER AND SQUASH

by
Saad Zakarya Abd El-Aty Morsy

Abstract

This study indicated main points as follows:

Control of squash powdery mildew disease: The best treatments to control this disease under greenhouse and field conditions were Topas, Amistar, Aqu. ext. Allium sativum, Aqu. Ext. Artemisia cina and bioagent E^{٢٥} (Bacillus subtilis) with high efficacy in disease control as protective and curative treatments.

Control of cucumber downy mildew disease: The best treatments to control cucumber downy mildew disease under greenhouse and field conditions were Equation pro, Amistar, bioagent B. subtilis as curative and protective, while it is possible to use Aqu. ext Artemisia cina and Aqu. ext. Allium sativum as only protective treatment.

There was increasing in activity of peroxidase and polyphenol oxidase enzymes when cucumber plants were treated by Equation Pro, Aqu. ext. Artemisia cina and bioagent E^{٢٥} (B. subtilis) comparing with untreated treatment. It is indicator for increasing induced resistance in cucumber plants.

From this study it has been shown that the mode of action of B. subtilis metabolites against fungi Pseudoperonospora cubensis, hence it has been seen thin hyphae and collapse in sporangia of fungi.

It was observed that the analysis by GC-MS for bioagent metabolites B. subtilis (E^{٢٥}) and aqueous plant extracts of Artemisia cina and Allium sativum showed that, there were joint compounds such as, n -hexadecanoic acid; hexadecanoic acid (palmitic acid; ^٩-octadecenoic acid (oleic acid) and octadecanoic acid (stearic acid) between bioagent metabolites and components of plant extracts. The antifungal activity of plant extracts and bioagent may be due to presence of previous fatty acids.

It should be carried out many studies on fungicides alternatives such as, Aqu. ext. Artemisia cina and Aqu. ext. Allium sativum, in addition, bioagents such as B. subtilis to have enough knowledge about mode of action and its efficacy against powdery and downy mildew diseases.

الكفاءة المقارنة بين المبيدات و بعض المفترسات لمكافحة الأكاروس

Comparative efficiency of pesticides and some predators to control spider mites

By

Hamdy Abd EL-Raheem Abd EL-Rahman Mohamed

Abstract

The present study is directed to evaluate the relative toxicity of six chemicals of different mode of action, four pesticides (abamectin , ethion,chorfenapyr and cyhalothrin) , one mineral oil (Nat ١) and one plant extract (Allium sativum) against the adult female mites Tetranychus urticae and their predators Amblyseius gossipi, Phytoseiulus macropilis and Stethorus gilvifrons using standardized method for bioassay. The effects of sublethal doses of these chemicals on some biological aspect of the mite and their predators were also evaluated. Abamectin has a special position in integrated mite management while cyhalothrin is a promising compound in mite control programs.

The contaminated prey egg consumption was different according to the chemical used. The pyrethroid compound cyhalothrin and the acaricide abamectin were the most effective on prey egg consumption, egg production and egg hatchability of the predators A.gossipi, P.macropilis and S.gilvifrons. (Nat ١) and A.sativum extract were the safest compounds that allowed the predator's egg to hatch producing the next stages to the biological agent to minimize prey populations.

قسم الميكروبيولوجيا الزراعية

التأثير المتضاد لبعض العزلات الميكروبية ضد فطر *Pseudoperonospora*

cubensis على نباتات الخيار تحت ظروف الزراعات المحمية

Antagonistic effect of some isolates against *Pseudoperonospora cubensis* on cucumber plants under protected cultivations

By

Said Mohamed Hassan Kamel

Abstract

Cucumber (*Cucumis sativus* L.) is one of the important economic vegetable crops, which belongs to family cucurbitaceae. Several fungal diseases attack cucumber plants in all growing stages such as downy mildew caused by *Pseudoperonospora cubensis* (Berk. and Curt.) Rostow, which causes loss in the yield reaching about ٣٠-٨٠ % under suitable condition of low temperature and high relative humidity. To control such disease, the synthetic chemical fungicides are traditionally used. Nowadays, environmental and health disorders caused by synthetic chemicals are considerable. This work aimed to search for safe means to control this disease using microbial biocontrol agents which considered as healthy and environmentally safe method alternative to chemical methods (fungicides). The obtained results in the following. Among the tested bioagents, the highest percentage of downy mildew in inhibition cucumber plants using antagonistic microorganisms as curative treatments were obtained by *Bacillus pumilus* (٤٩.٥٥%), *Bacillus chitinosporus* (٤٨.٧٥%) and *Bacillus subtilis* (٤٨.٢%). The mixture of these bacterial agents came at the fourth order having (٤٧.٨%) disease inhibition, meanwhile, the fungal antagonists *Epicoccum* sp. achieved ٤٥% disease inhibition. On the other hand, the fungicide (Equation Pro) achieved the highest disease inhibition percentage (٥٢.٠%). Screening for prophylactic inhibition effect indicated the percentage of disease inhibition obtained by *B. pumilus*, *B. subtilis*, *B. chitinosporus*, mixture of bacteria and *Epicoccum* sp. were (٧٢.٩, ٦٩.٢, ٦٧.٣, ٦٣.٧ and ٥٩.٢ %), respectively. To determine the number of foliar application, *B. chitinosporus* achieved the highest disease inhibition (٥٥.٧٥%) when applied every week followed by *B. subtilis*, mixture of bacterial, *B. pumilus* and *Epicoccum* sp. that recorded ٥٤.٦, ٥٤.٣٥, ٥٢.١٩ and ٥٠.٩١ % of disease inhibition, respectively. Applications of the tested bioagents every two or three weeks resulted in significant lower inhibition effects. To determine the suitable initial time for application, the obtained results revealed that applications at three weeks age of plants were significantly more efficient to inhibit the downy mildew disease than the later times of applications (٤, ٥ and ٦ weeks of plant age). The highest inhibition was obtained by *B. subtilis* (٧٠.٢ %) and *B. pumilus* (٧٢.٦٥ %), respectively, and the botanical

measurements (plant height, total chlorophyll, fresh and dry weight) and yield parameters (average number of fruits/plant and average weight fruits/plant) showed no adversely effects even under the dense applications (weekly applications) or the early applications (started at ٣ weeks of plant age). However, *B. pumilus* and *B. subtilis* gave the highest botanical and yield measurements in all cases comparing with the other treatments. The microscopic examination (light and scanning electron microscopy) of the downy mildew lesions treated by liquid culture of *B. pumilus* and *B. subtilis* showed direct effects that appeared as loss in turgor and osmolysis of sporangia of hyphae of *Pseudoperonospora cubensis*. The surface activity of *B. pumilus* culture filtrates was proven by treating the red blood cells. The treated red blood cells showed membrane lysis. The cucumber plants, prophylactically treated with the tested bioagents showed other indirect effects appeared as rising of (peroxidase and polyphenoloxidase) activities as indicator of induced resistance. The spectrum of Gas Chromatography of the metabolites excreted by *B. subtilis* and *B. pumilus* included various bands which mostly represent different antagonistic compounds (fatty acids) having surface activities.

المكافحة الحيوية لنيماتودا تعقد الجذور على نباتات الطماطم باستخدام تجهيزات مختلفة من المضادات الفطرية

Biological control of root-knot nematode (*Meloidogyne* spp.) on tomato by using
different formulations from fungal antagonistics

By

Eman Samir Fatehy Hagag

Abstract

The most tow efficient antagonists, identified as *Acremonium* sp. and *Myrothecium verrucaria* were chosen to used in the present work aiming to optimizing the growth conditions for mass production and formulate antagonistic bioproducts suitable for handling and storage. The optimum temperature and pH for mycelial growth of *Acremonium* sp. are ٢٠ °C and pH ٥, whereas are ٢٥ °C and ٤ pH of *M. verrucaria*. The highest production in mycelial growth was obtained on GPY followed by MB medium. The obtained biomass were prepared in five different forms (an aqueous suspension, viscous suspension, emulsions, powder and granules). The viability of *Acremonium* sp. and *M. verrucaria* on wheat bran, sand corn meal and barely powders did not change over four months, except the viability of *Acremonium* sp. on barely witch significantly decreased after tow months. The granules (alginate/wheat bran and alginate kaolin) were retained their viability on storage over four months. The viability of aqueous suspension and viscous suspension retained their viability on storage for one month whereas, the viability of emulsions did not significantly decrease even three months. Metabolites of *M. verrucaria* at different concentrations significantly reduced the percentage of egg hatching and active juveniles of *Myloidogyne javanica*. The prepared fungal preparations which proved to have longer shelf-life were evaluated for control of *M. javanica* on tomato under greenhouse conditions. Performance of fungal preparations depend on inoculum density, preparations and application methods. Some treatments achieved levels of protection against root-knot nematodes and of plant growth comparable to those achieved by the nematicide Rugby ١٠G. Hhigher inoculum densities (١٠٦ CFU /g soil) were more effective especially, antagonistic nursery method. The granules which prepared from *M. verrucaria* metabolites and DiTera achieved significant high levels of protection against root-knot nematode, they reduced root-galling by ٧٤.٨٥% and ٧٦.٥٧%, respectively at the higher rate (٠.٢ g/plant) witch was not significantly different from that achieved by Rugby ١٠G (٨٢.٨٥% reduction) and reduced the final nematode population by ٩٣.٦٣% and ٩٥.٢٥%, respectively at the higher rate (٠.٢ g/plant) witch was achieved reduction higher than achieved by Rugby ١٠G (٩٠.٩٣% reduction). The promising attributes of *Acremonium* sp. and *M. verrucaria* preparations encouraged testing its performance under field conditions. The highest reduction on root-galling was achieved when

applied using antagonistic nursery method with kaolin granules of *Acremonium* sp. (٦٧.٢٥%). Treating with wheat bran granules of *M. verrucaria* achieved the highest reduction of final nematode population (٦٥.٣٦%) and the highest increase of yield (٤٤.٢٦%).

قسم الوراثة

دراسات وراثية وجزيئية على مقاومة اللبحة في الارز

Genetic and molecular studies on blast resistance in rice

By

Samah Monir Abd El-Gawad Abd El-Khalik

Abstract

The current investigation was carried out at Genetics division, Faculty of Agriculture, Kafr EL-Sheikh University. All field experiments were carried out at the Rice Research and Training center (RRTC) Experimental farm, Sakha, Kafr El-Sheikh, Egypt during the three successive seasons ٢٠٠٦-٢٠٠٨ . The molecular analysis was done at Rice Biotechnology Lab., Rice Research and Training Center, to evaluate a set of ٤٦ genotypes differing in their blast resistance and to assess the genetic diversity at morphological and molecular levels and to evaluate the field performance of ٢٩ elite lines for their blast resistance. The ٤٦ blast differential were then used to validate some of the linked markers for blast resistance and LD mapping for blast resistance. The results showed highly significant differences for the combined analysis for all vegetative, yield and yield related traits. These results clearly showed the amount of variability that does exist among the tested genotypes . About ٥٨.٧% of the tested entries with high resistance level to rice blast in the blast nursery field during the two seasons of evaluation. Greenhouse test with the two fungal races IB٤٥ and IG٤٥ showed that some genotypes were differentially expressed against the two fungal races . Broad sense heritability ranged from ٦٦.٧٤% for panicle length in the second season to ٩٧.٠٣ for the grain yield in the first year. Negative and highly significant correlations were detected among blast reaction and each of panicle weight, no. of grains per panicle and flag leaf area.

The evaluation of ٢٩ elite lines showed that percentage of resistant lines to blast disease as revealed by blast nursery test were more than ٨٠% of the total number of lines. Some of the advanced breeding lines showed considerable yield advantage over the reference check Sakha ١٠٤. The molecular analysis results revealed that out of ٣٢ primers used, Six primers, showed monomorphic patterns , while the remaining ٢٥ markers showed clear and distinct banding patterns.. The total % of polymorphic primers was ٨١.٢٥%. The number of alleles detected ranged from ١ allele in all the monomorphic markers to ٥ alleles in RM٣٣٥. The dendrogram explaining the genetic relationships among the tested genotypes using UPGMA, revealed that genotypes were clustered largely based on their genetic background into indica and Japonica groups, rather than blast resistance per se. Marker validation analysis identified a

number of blast resistant donors for crossing with Sakha ١٠١ and Sakha ١٠٤. LD mapping revealed the linkage of some primers used to blast resistance i.e., JJ ٨٠ and JJ ١١٣ and hence the ability to utilize them in marker assisted selection in breeding program.

استجابة بعض هجن القمح وراثيا و فسيولوجيا وتثرييا للإجهاد المائي

GENETIC, PHYSIOLOGICAL AND ANATOMICAL RESPONSE OF SOME
WHEAT CROSSES TO WATER STRESS

By

Waleed Zaki El-Yamany Farhat

Abstract

This study was carried out during ٢٠٠٥/٢٠٠٦ and ٢٠٠٦/٢٠٠٧ at the Experimental Farm of Sakha Agricultural Research Station and laboratory of Microbial Genetics, Genetics Dept., Fac. of Agriculture, Kafrelsheikh University. Three wheat crosses: cross ١ (Chinese spring \times Sakha ٦١ = sensitive \times sensitive), cross ٢ (Sakha ٨ \times Sakha ٦١ = tolerant \times sensitive) and cross ٣ (Sakha ٩٣ \times Sakha ٨ = tolerant \times tolerant) were used under normal (planting irrigation and four irrigation) and water stress (planting irrigation and one irrigation) conditions. In each cross, the two parents, F^١ and F^٣ were used. The studied characters were some agronomic, physiological, anatomical characters. In addition, PAGE electrophoresis separation of total leaf proteins and some isozymes were applied using the two parents, their F^١ and F^٣ tolerant and sensitive bulks. The means of all genotypes decreased under the water stress treatment for all agronomic characters, except ١٠٠ KWT which showed nearly the same values under normal and water stress conditions. In addition, the mean of flag leaf area, Chlorophyll contents and canopy temperature decreased under water stress. Generally, the F^٣ generation exhibited tolerance performance compared to the parents and F^١ generations. Significant differences among the F^٣ families were found in all agronomic characters at both conditions. The estimates of genetic variance among families were larger than those of within families and all genetic variance was due to additive effect for agronomic characters, except for yield and its components in most crosses. Relatively moderate to high broad and narrow sense heritability and expected genetic advance values estimates were found for most agronomic characters. Under water stress, the means of all stem anatomical characters decreased, while most leaf anatomical characters were increased. The flag leaf adaxial surface recorded greater stomatal frequency in all the genotypes and stomatal size in most genotypes than abaxial surface. Water deficit leads to an increase in stomatal frequency and a decrease in stomata size in most genotypes, while the size of apertures decreased under water stress on adaxial surface and increased on abaxial surface in most genotypes. Peroxidase and esterases isozymes proved to be not accurate criteria for characterization of wheat genotypes at different water treatments. Under water stress, an additional band were detected in Chinese spring, F^١ hybrid in cross ١, F^٣ tolerant bulk in cross ٢ and F^٣ sensitive bulk in cross ٣. In Sakha ٦١, six bands were disappeared.

**التحليلات الوراثية والسلوكية لتمثيل الكوينين في الاختيار والتغذية
والتعليم ليرقات الدروسوفيلا ميلانوجاستر**

Genetic and Behavioral Analyses of Quinine Processing in Choice, Feeding, and
Learning
of *Drosophila melanogaster* Larvae
by
Amira Mohamed Shehata El-Keredy

Abstrac

Gustatory stimuli can support both immediate reflexive responses, such as choice and feeding, and can drive internal reinforcement. Here, behavioural analyses of these functions were conducted with respect to bitter taste in larval *Drosophila*. In particular, the dose-effect functions were 'footprinted' for these kinds of behaviour. The half-maximal effect of Quinine (QUI) in choice was found for an about one order of magnitude lower QUI concentration than for learning; a half-maximal feeding effect appears to require a concentration of QUI that is yet almost one order of magnitude higher. Similar discrepancies between the concentration-'footprints' of choice, feeding, and the reinforcing function have previously been reported for salt (Niewalda et al., ٢٠٠٨) and sugar (Schipanski et al., ٢٠٠٨). Thus, in general the gustatory system did not appear to be uniform in sensitivity regarding different kinds of behaviour. These differences between behaviours could be due to differences in the sensitivity of the behavioural assays used. Rather, it was suggested that different sets of gustatory receptors differing in their dose-effect characteristics may be expressed in different gustatory sensory neurons. Depending on their respective connectivity in the brain, the behaviours steered by these neurons follow these respective dose-effect functions. Thus, the present results provide a starting point to investigate how the gustatory system is "orchestrated" on the cellular and/ or molecular level to support different kinds of behavioural tuning curves towards bitter tastants.

Initial genetic analyses of bitter-related behaviour in larval *Drosophila*

Here, an initial step was provided to unravel the neurogenetics of bitter-processing in larval *Drosophila*. We tested whether a lack of the synaptic protein SAP^{٤٧} (in the sap^{٤٧١٥٦}NF mutant) has effects upon bitter-choice behaviour as well as on the capacity of bitter tastants to inhibit feeding behaviour. After verifying the lack of the SAP^{٤٧} protein by Western blotting, we found that indeed sap^{٤٧١٥٦}NF mutants are impaired in both kinds of behavioural assay (and, using an extended assay duration, in sugar-choice behaviour). These results are highly valuable as they open up new lines of research, prompting to ask firstly in which neurons the SAP^{٤٧} protein acts with respect to taste processing; secondly, these findings may lead to a reinterpretation of the odour-sugar learning defect as reported by Saumweber (٢٠٠٧).

قسم إنتاج الدواجن

تأثير معاملة بيض التفريخ بالميلاتونين والإضاءة على تطوير الأجنة والاستجابة المناعية وكفاءة الأداء للكتاكيت الفاقسة في دجاج اللحم

Melatonin treatment and photostimulation of incubated eggs and their effects on embryonic development and immune response and performance of hatched broiler chicks

by

Aref Mohamed Othman El-Haleek

Summary

The experiment included ٦ experimental groups: each group consisted of ١٥٠ eggs at the start, in three replicates of ٥٠ eggs. Two incubators were used in the present study. The first incubator was lighted, and egg trays were intermittently photostimulated (١٥ min on and ١٥ min off) with green light through out the incubation period. The incubator lights were adjusted to provide a relatively even distribution of light intensity of about ٣٧ lux. The second incubator was not lighted and used as a dark- incubator (control).

The findings of the current study suggested that exposure to melatonin during late embryonic life enhanced the development of cellular and humoral immune responses in the neonatal broilers. Simply stated, embryos receiving melatonin on day ١٨ of incubation reach post-hatch immune competence sooner than vehicle-treated embryos. From a practical sense, melatonin may be used to expedite broilers immune development thereby allowing the animal to fight environmental pathogens earlier in life. Embryonic melatonin may also provide for better vaccine efficiencies, reducing mortality to infectious disease during the neonatal phase. In addition, these data provide the additional evidence of the benefits of embryonic melatonin administration and green light photostimulation to neonatal immune development.

قسم المجتمع الريفي

دراسة محددات وعواقب طموح الشباب الريفي في بعض قرى محافظة كفرالشيخ

A STUDY OF DETERMINANTS AND CONSEQUENCES OF ASPIRATION OF
RURAL YOUTH IN SOME VILLAGES, KAFRELSHEIKH GOVERNORATE

By

Saber Mohamed Abde-Wahab Ahmed

Abstract

Youth are considered as the development locomotive and self power to upgrade the quality of rural life and achieve the human development goals of local communities especially of the rural ones, so, it was necessary to study the relevant (related) factors which determine (define) the rural youth's ambition in order to know the aspiration consequences on rural youth, aiming at benefiting from the advantages of this study for the enrichment of the theoretical knowledge in the field of human development in addition to opening the way in front of future studies. This helps to activate the rural youth's energy to make them participate in the process of local communities development and to put the facts based on a scientific origin in putting programmers to contain these powers and merge them in development plans.

The overall objectives of the present study is to assess levels of rural youth's aspiration. This objective, The flowing specific tasks are stated:

To identify the level of rural youth's aspiration and its components.

To identify factors that are related, determining and explaining the variance in rural youth's aspiration and its components.

To identify the relationship between dimensions of rural youth's aspiration and sense of belonging to community, family satisfaction a pathy and attitude toward crime.

Age, father's education, size farm landholding, political participation, degree of social participation, political participation, sgree of satisfaction with village services were passivity and significantly correlated with the aspiration at ٠.٠٥ level at least. The independent variables of the study, combined explained ٢٤.٦% of the variance in the degree of rural youth's aspiration. The stepwise solution show that the five independent variables of political participation, size farm landholding, mass media exposure, mother's education and age explain ٢٣.٥% of the variance in rural youth's aspiration.

العوامل المرتبطة بتجديدية ومخرجات التعليم

في المدارس الإعدادية بريف محافظة كفر الشيخ

Factors Related To Innovativeness and Educational Outcomes of Preparatory Schools
In KAFR El-Sheikh Governorate

By

Lamiaa Saad El-Saied Al-Hosiny

Abstract

The current study seeks to maintain (achieve) the following objectives:

١. To recognize the levels of innovativeness in rural preparatory schools in Kafr El Sheikh governorate.
٢. To recognize the levels of educational outcomes in rural prep-schools in Kafr El-Sheikh.
٣. To Explore correlations between independent variables and both:
 - *The innovativeness in rural prep- schools in Kafr El Sheikh.
 - * Educational outcomes of rural prep-schools in Kafr El Sheikh.
٤. To identify the variables that make more contributions to explaining variance in:
 - A- The innovativeness of rural prep-schools in Kafr El-Sheikh.
 - B- educational outcomes of rural prep schools in Kafr El Sheikh.

The Area of research has been identified to encompass all prep-schools in Kafr El Sheikh –the study made the rural prep school a unit of study where the sample size amounted to ١٩٥ schools that were randomly chosen. Data was collected through a questionnaire that involved individual interviews with the principals of rural prep-schools.

The most important analytical results of the study are :

Variables of the two-directional communication, school innovativeness, the relationship of the goal with the outside communication make significant contributions in explaining the variance in the variable of behavioral goal as one dimension of measuring educational outcomes as they explain the percentage of ٢٢,٦% of total variance in this dimension.

The study presented some recommendations that were discussed.

**دراسة وصفية تحليلية لعمالة الأطفال
في بعض قرى محافظة كفرالشيخ**

A DESCRIPTIVE ANALYTICAL STUDY OF CHILDREN WORK IN SOME
VILLAGES IN KAFRELSHIEKH GOVERNORATE

By

Wadiea William Shehata Rezk

Abstract

(Rural Sociology)

The main purpose of this study is to investigate phenomenon of rural children work in some village's in Kafrelshiekh Governorate. The main objectives of this study were to identity personal and familial characteristics of working, causes and motivations of rural children work, conditions under which they work, age of child at the beginning of work, type of work, level with work and consequences of children work.

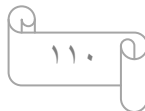
A number of sociological theories were utilized as theoretical farm of reference, previous studies on children work reviewed. Based upon this review a number of hypothesis on rural children work were proposed.

Empirical data used in the study were collected in Mesir and Eshaka in Kafrelshiekh district and Alwarak and Kafrelmasharka in Sidi Salem district, Kafrelshiekh Governorate through personal interviews with a selected sample composed of ٢٥٠ working children in addition ٢٥٠ children's father.

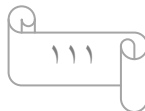
Statistical techniques employed in data analysis and hypotheses testing included percentage, averages, correlation and regression.

The major results of this study could be summarized as follows:

- There were ٧١.٢% in the total samples are males and ٢٨.٨% females of working children and ٨٠.٤% of working children were enrolled in school. The remainder either dropped out ١٩.٦%.
- It was found that the child was working by father, mother, the child him self and brother.
- The most important reasons for rural children work from their point of view were assisting families in work ٣٦% bad economic conditions ٢٠.٤%, secure personal needs ١٣.٦%, to learn handcraft ١١.٦%.



- It was found that ٦١.٦% of working children work in agriculture, ٣٨.٤% work in non-agriculture, ٣٩.٦% of working children work with their family, ٦٠.٤% work with others, ٧٠.٨% were receiving wages while ٢٩.٢% were not.
- Results of the study indicated that degree of satisfaction with work because they assisting families, to learn hand craft, secure personal needs and receiving wages.
- Study findings revealed that children work did have negative effects include lack of lack of schooling, for some working children it was difficult to work and study together, many of them has suffered injuries during work.
- Study finding show that it does have some positive consequences such as saving money for education costs and assisting family working gives some children gain experience for future career and a means to play and meet with friends.
- There was correlation between children work and ten of independent variables. The results also revealed that no correlation between children work and five of independent variables.
- The results also revealed that the independent variables taken together explain ٤٦.٩% of variation in children work. The independent variables were ten variables.



واقع المرأة المصرية في خطط التنمية الاقتصادية والاجتماعية

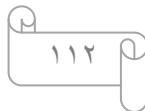
THE STATE OF THE EGYPTIAN WOMEN IN SOCIO-ECONOMIC DEVELOPMENT PLANS

By

Wael Issa Mohammed Issa

Abstract

Study aimed mainly to identify the development of the reality of Egyptian women's economic, political, health and education during the implementation of five-year plans for economic and social development in the period from ٨٢/١٩٨٣ - ٢٠٠٦/٢٠٠٧, the most important variables affecting this reality can be achieved through a number of sub-goals, Westphalia stand on the amount of development in the reality of Egyptian women through education to identify in their educational development; and the size of pout in education; and development in services and educational facilities, and the extent of development in the health and reality by identifying the development in their health status and health services and facilities provided to them, as well as assess the extent of development in the reality of Egyptian women's contribution in economic activity; and access to soft loans, in addition to addressing the evolution of women's participation in political life through the identification of evolution in political reality as voters, candidates and a member of the legislative and local councils, political parties and trade unions , has been outsourcing of secondary data to meet the study data with a focus on the use of only one source of data published and unpublished, and of more than one credit to achieve the objectives of the study. The data was processed statistically after their discharge, compiled and entered for computer using more than a statistical method, ranged from percentages and arithmetic mean, standard deviation and coefficient of variation as a test to describe the data as it is the use of statistical tables and graphs in the presentation of the explanatory data, and when reviewing the main results of the study there is a gap quality success rates in all stages of pre-university education between males and females, as increased success rates of females to males in all stages of pre-university education during the years of successive plans, results of the study also showed a marked improvement in the rates of pot in female education during that period, as the growing proportion of women enrolled in college In contrast, process enrollment ratios are low pre-primary education especially in rural areas, and for the reality of the health results showed low rates of government



expenditure on health as a percentage of gross domestic product of Egypt's minimum approved by the World Health Organization, amounting to around ٥%, while maternal care indicators have various improvement in urban areas is higher than those in the countryside - except the index to get an extra dose of the vaccination of neonatal tetanus - reflecting bad geographical distribution of these services, as average life expectancy at birth of Egyptian women a year during that period, and for the economic reality of the results shows The proportion of female participation in economic activity during that period are still accounted for about five labor force in the Egyptian labor market, and reduced employment opportunities for the mirror in units of the public sector due to the policy of privatization and structural adjustment, which accounted for more functioning institutions for women, which led to the transformation of many of them to the Gaza informal employment and unemployment rates among females by more than three-fold for males during the years of those plans, and for the political reality of the results of the study showed the low level of representation of women at the leadership level of the Egyptian political parties, but the representation of women for political offices amounted to some parties (zero%) also showed significantly lower level of representation of Egyptian women in trade union action and the continuing under representation of women in legislative councils local people during that period.

قسم البساتين

تأثير مياه الصرف الزراعي وملوحة التربة على النمو والتركيب الكيماوي لشتلات الفيكس نتدا والبوانسيانا

EFFECT OF DRAINAGE WATER AND SOIL SALINITY ON THE GROWTH AND
CHEMICAL COMPOSITION OF *Ficus nitida* AND *Poinciana regia* SEEDLINGS

By

Karima Mohammady Mahmoud Nesseim

Abstract

This study (included two experiments) was carried out at the Experimental Farm of the Faculty of Agriculture, Kafrelsheikh University during ٢٠٠٥ and ٢٠٠٦ seasons. The first experiment was to study the effect of irrigation treatments with both drainage and Nile water on the growth and chemical composition of *Ficus nitida*, Thunb and *Poinciana regia*, Bojer transplants (one-year-old). The second experiment was to study the effect of soil salinity with NaCl, CaCl₂ and their mixture (١: ١, by weight) at the levels of ٠.٠, ٠.٣, ٠.٦, ٠.٩, ١.٢ and ١.٥ g salt/١٠٠ g soil and their interaction on the growth and chemical composition of the foregoing transplants species.

The obtained results can be summarized as follows:

First experiment :

١. in all vegetative growth parameters such as plant height, stem diameter, number of branches/plant, leaf area, root length and fresh and dry weights of leaves, branches and roots.
٢. Chlorophylls (a and b), total carbohydrate, (R.W.C)% as well as N, P, K and Mg% in the leaves took the similar trend to that of vegetative growth.
٣. There were significant increments in the aforementioned parameters with using the Nile water treatment or the treatment of ¾ Nile water + ¼ drainage water in comparison of other treatments.
٤. The highest and lowest significant values of proline content and Ca, Na and Cl% in the leaves resulted from the drainage water treatment and the Nile water treatment, respectively.

So, it is recommended to using the treatment of ¾ Nile water + ¼ drainage water in case of the shortage in the Nile water without any hazardous for *Ficus nitida* and *Poinciana regia* plants.

Second experiment:

١. *Ficus nitida* transplants could survive at all levels of CaCl_2 and the mixture ($\text{NaCl} + \text{CaCl}_2$, ١: ١ by weight), but could not survive at ١.٢ or ١.٥% NaCl salt.
٢. *Poinciana regia* transplants could not tolerate soil salinity to more than ٠.٩% NaCl , but survived at ١.٥% of CaCl_2 or the mixture of the two salts (١: ١, w/w).
٣. Sodium chloride was the more injurious followed by calcium chloride then the mixture ($\text{NaCl} + \text{CaCl}_2$, ١: ١, w/w).
٤. Raising salinity levels caused gradual and significant decrease in the vegetative growth, chlorophylls (a and b) total carbohydrate, (R.W.C.) % as well as N, P, K and Mg% in the leaves.
٥. Proline contents, Ca, Na and Cl% in the leaves were increased by raising soil salinity levels.
٦. It would be recommended that one year old transplants of *Ficus nitida* do not plant in soil containing more than ٠.٩% NaCl and ١.٥% either CaCl_2 or the mixture and *Poinciana regia* in soil containing only up to ٠.٩% NaCl , ١.٢% CaCl_2 and ١.٥% the mixture.

**دراسات فسيولوجية وتشريحية على تحمل الملوحة في شتلات الكمثرى
النامية على أصول مختلفة**

PHYSIOLOGICAL AND HISTOLOGICAL STUDIES ON SALT TOLERANCE OF
PEAR SEEDLINGS GROWN ON DIFFERENT ROOTSTOCKS

By

Mohamed Aly Mohamed Soliman

Abstract

This work has been carried out during ٢٠٠٥ and ٢٠٠٦ seasons on “LeConte” pear seedlings budded on four rootstocks. The present work was placed in two separate experiments, the first was carried out at the Experimental Farm of the Faculty of Agric. Kafrelsheikh Univ. to study the response of “LeConte” pears on four rootstocks, P. communis, P. beutilifolia, P. calleryana and quince to the irrigation with saline water (٠, ١٠٠٠, ١٥٠٠ and ٢٠٠٠ ppm of NaCl plus CaCl₂ in a mixture of ١: ١ by weight) and the role of rootstocks in increasing salt tolerance of the scion. The second was conducted during ٢٠٠٥ and ٢٠٠٦ seasons on one year old “LeConte” pear budded on the same mentioned four rootstocks to study the possibility of using liquid organic fertilizer (as a soil and soil + foliar spray at ٣٠٠٠ ppm with Actosol which contain ٢.٩% humic acids and ١٠-١٠-١٠ NPK) and some growth regulators (Amcotone and PBZ at ٥٠ ppm for each of them & GA₃ at ١٠٠ ppm as foliar spray) to reduce the harmful effects of salinity in soils which suffering from salinity trees were grown at Sakha Agricultural Research Station Farm, Kafr El-Sheikh Governorate. The results could be summarized as follows: salinity treatments significantly decreased growth parameters, nutritional status, leaf water content, leaf chlorophyll content, spongy tissue thickness and xylem rows ion vascular bundle of leaf and cortex thickness, diameter of vasc. cylinder, No. of arches and No. of vessels/arch of stem. On the other hand, salinity treatments significantly increased toxic ions, leaf praline content, osmotic pressure, thickness of both cuticle and epidermis layers of the two leaf surfaces as well as palisade tissue thickness, and thickness of epidermal cell and pith diameter of stem. Salt tolerance of P. beutilifolia and P. calleryana rootstocks was higher followed by P. communis, while the lower salt tolerance was recorded by quince rootstock. Humic acid and the growth regulator treatments markedly minimized the harmful effects of salinity and enhanced pear salt tolerance leading to enhancing the morphological, physiological and anatomical characteristics.

**استجاب الجلاديولس والنرجس لمستخلصات الاعشاب البحرية
والكمبوست واسمدة النتروجين والفسفور والبوتاسيوم**

**RESPONSE OF GLADIOLI AND NARCISSI TO SEAWEED EXTRACTS,
COMPOST AND NPK FERTILIZERS**

Georgena

By

Wahib Rizk Gabra El-Saigh

Abstract

The present work was carried out during the two successive seasons of ٢٠٠٦/٢٠٠٧ and ٢٠٠٧/٢٠٠٨ in Antoniad's Garden, Horticultural Research Institute, Alexandria, Ministry of Agriculture, Egypt.

Pots experiment were conducted to study the effect of seaweed extracts "Promex"; chemical fertilizer (NPK) and compost "G-zoor compost" on the vegetative growth, flowering, vase life, bulbs yield and chemical composition of *Gladiolus hybrida*, L. cv. "Rose Supreme"; and *Narcissus tazetta*, L. cv. "Polyanthus Narcissus". The treatments were applied as follows: ١- "Control" as a full dose of NPK [٦, ١٠ and ٦ g/pot from ammonium sulphat (٢٠.٥ % N), calcium superphosphate (١٥ % P₂O₅) and potassium sulphate (٤٨ % K₂O), respectively. ٢- ١/٢ NPK + ١٠ % compost. ٣- ٣/٤ NPK + Promex. ٤- ١/٢ NPK + ١٢.٥ % compost. ٥- ١/٢ NPK + Promex. ٦- ١/٢ NPK + ٧.٥ % compost + Promex. ٧- ١/٤ NPK + ١٢.٥ % compost + Promex. ٨- ١٢.٥ % compost + Promex.

The compost and P were added through the soil preparation before planting in each season, while seaweeds extract "Promex" was applied as a foliar spray [١ ml / 1 water] on plant leaves ٣ times. The first time was done after the complete gladiolus and narcissus plants reached ١٠ cm height, the second time after one month from the first one, while the third one was applied after cutting flowers. N and K were divided into ٣ equal doses. The first dose was added after the fourth leaf appearing. The second dose after one month from the first one and the third dose was added after cutting flowers for gladiolus and narcissus plants.

The obtained results can be summarized as follows:

A. *Gladiolus hybrida*, L. cv. "Rose Supreme".

The significantly highest values of the vegetative growth parameters [earlier emergence date, foliage height, number of leaves/plant, leaf area/plant, leaves fresh and dry weights/plant], flowering characters [earlier showing colour and flowering date, stalk length, numbers of florets/spike, spike circumference, rachis length, spike fresh and dry weights and vase life], corms productivity [corm circumference and corm dry weight, cormels number/ plant and cormels fresh and dry weights/ plant] and

chemical constituents [total chlorophyll, total carbohydrates %, N, P and K %] resulted from the treatments of $\frac{3}{4}$ NPK + Promex, $\frac{1}{2}$ NPK + ٧.٥ % compost + Promex and ١٢.٥ % compost + Promex in two seasons in the most cases.

***Narcissus tazetta*, L cv. "Polyanthus Narcissus".**

The significantly highest parameters values of the vegetative growth [earlier emergence date, number of leaves/pot, leaf width, leaf length, leaves fresh and dry weights/plant and leaf area/plant], flowering characters [earlier showing colour and flowering date, number of florets/stalk, stem circumference, scape length, stalk length, corona and floret diameters, pedicel length, inflorescence numbers/pot, inflorescence fresh and dry weights and vase life], bulbs productivity [new mother bulb circumference, number of bulblets/pot, total bulbs fresh and dry weights/pot], and chemical compositions [total chlorophyll, total carbohydrates %, N, P and K %] which had the highest values, resulted from the treatments of $\frac{3}{4}$ NPK + Promex in most cases in the two seasons.

تأثير الأسمدة العضوية والمعدنية والمنشطات الحيوية

على نمو ومحصول وجودة نبات الكانتالوب

EFFECT OF ORGANIC AND MINERAL FERTILIZERS AND BIOSTIMULANTS
ON GROWTH, YIELD AND QUALITY OF CANTALOUPE PLANT (*Cucumis melo*
var. *cantaloupensis*, L.)

By

Diaa El-Deen Khalaf Farrag

Abstract

This work was carried out at a private farm in Sidi-Salem District, Kafrelsheikh Governorate during the two summer seasons of ٢٠٠٥ and ٢٠٠٦ on cantaloupe (*Ananas* F¹ hybrid). The aim of this work was to study the effect of some N fertilizer sources (organic and inorganic), biostimulants (Microbein and/or seaweed extracts) and their combined interaction on vegetative growth, flowering, fruit yield, fruit quality and chemical analysis of leaves. The obtained results cleared that:

Applying the treatment of ٥٠% organic + ٥٠% mineral fertilizer resulted in the most vigorous vegetative growth, the earliest flowering and the highest early and total yield, fruit quality and chlorophyll as well as N, P and K contents followed by ٢٥% organic + ٧٥% mineral fertilizer treatment while, the treatment of ١٠٠% organic manure (compost) gave the lowest values of these parameters in both seasons.

The combination treatment of Microbein plus seaweed extracts (Algifert) produced the best vegetative growth characters, the earliest flowering and the highest early and total yield, fruit quality and chlorophyll and nutrients contents. In contrast, the lowest records of these parameters were obtained from the control treatment without biostimulants in both seasons.

The combined interaction between ٥٠% organic + ٥٠% mineral as N fertilizer source and Microbein plus seaweed extracts as biostimulants gave the best vegetative growth characters at all tested sampling dates, the earliest flowering and the highest early and total yield and fruit quality as well as crop value and net income/fed. followed by ٢٥% organic + ٧٥% mineral fertilizer with both biostimulants while, the lowest values were achieved by ١٠٠% organic manure (compost) without biostimulants in both seasons.

Thus, it can be concluded that the combined interaction between ٥٠% organic + ٥٠% mineral N fertilizer and Microbein plus seaweed extracts (Algifert) was the most profitable treatment for producing cantaloupe plants under Kafrelsheikh conditions and similar areas.

**دراسات على التطعيم المفرد والمزدوج لنباتات الخيار
على أصول من أنواع مختلفة تحت الصوب البلاستيكية**

**STUDIES ON SINGLE AND DOUBLE GRAFTING OF CUCUMBER PLANTS ON
DIFFERENT TYPES OF ROOTSTOCKS UNDER PLASTIC HOUSES**

By

Ahmed Hussein Mohamed Sallam

Abstract

Two experiments were carried out under plastic house conditions during the early summer season of ٢٠٠٥ and ٢٠٠٦ at Sakha Protected Cultivation Site, Ministry of Agric., Kafrelsheikh Governorate. The object of the two experiments was to study the effect of single and double grafting onto four types of rootstocks (fig leaf gourd, bottle gourd, pumpkin and cucumber, cv. Beit Alpha) on successful grafting %, anatomical structure of grafting union, growth, flowering and fruiting, fruit yield and quality and minerals and chlorophyll contents of cucumber F^١ hybrid, cv. Delta Star. The results are summarized as follows:

- ١- Single self-grafting of cucumber and grafting onto fig leaf gourd stock gave the highest successful grafting (%).
- ٢- Grafting onto fig leaf gourd stock with either single or double root gave the largest area of vascular tissues (xylem and phloem) in the grafting union.
- ٣- All grafting treatments increased vegetative and root growth characteristics, earliness of flowering and number of female flowers/plant, especially plants grafted onto fig leaf gourd in most parameters compared to ungrafted plants.
- ٤- Both single and double grafting treatments overyielded early, mid-season and late fruits of the ungrafted control, especially grafting on fig leaf gourd stock with either single or double root.
- ٥- Using bottle gourd stock with either single or double grafting tended to give the highest physical fruit quality (length, shape, smell, taste and green colour). However, TSS% tended to increase by bottle gourd, pumpkin and fig leaf gourd stocks, while the same result for dry matter % was achieved by fig leaf gourd with double root. Furthermore, both single and double grafting reduced decay and weight loss (%) of stored fruits after ١٠ and ٢١ days from storage period, particularly in case of grafting on fig leaf gourd with single root.
- ٦- Self grafting of cucumber resulted in slight increase of N, P and K (%) in leaves. Also, single and double grafting treatments increased total chl., especially single grafting on fig leaf gourd or pumpkin stock and exhibited more resistance to some foliage diseases.
- ٧- Thus, grafting onto fig leaf gourd with either single or double root produced the highest crop value and income (L.E/m^٢) of cucumber.

قسم المحاصيل

التربية لتحمل الجفاف في الارز

BREEDING FOR DROUGHT TOLERANCE IN RICE

By

Almoutaz Bellah Ali El-Mohamady Hassan

Abstract

The present investigation was carried out at the experimental farm of Agronomy Department, Faculty of Agriculture, Kafrelsheikh University during ٢٠٠٦, ٢٠٠٧ and ٢٠٠٨ seasons included two main conditions; i.e., normal irrigation and water stress using two model of analysis line x tester analysis and six populations analysis through the parents were used as testers (Sakha ١٠١, IET ١٤٤٤, Agami and GZ١٣٦٨-S-٥-٤) and some cultivars were used as lines "Sakha ١٠٣, Giza ١٧٥, Giza ١٧٦, Giza ١٧٧, Giza ١٧٨, Giza ١٨٢, Egyptian Jasmin and Pousa Pasmati".

Six population analysis (P^١, P^٢, F^١, F^٢, BC^١ and BC^٢) were conducted using five crosses namely; Sakha ١٠١ x Sakha ١٠٣, Sakha ١٠١ x Giza ١٧٧, Agami x Sakha ١٠٣, GZ١٣٦٨-S-٥-٤ x Giza ١٧٥ and GZ١٣٦٨-S-٥-٤ x Giza ١٧٨ were evaluated under normal and drought conditions and the results showed that :

١. The most desirable mean value and positive and highly significant for heterosis, general combining ability, specific combining ability and all genetic parameters for line x tester analysis under the two conditions were detected from the genotypes; Sakha ١٠١, IET ١٤٤٤, Agami, IET ١٤٤٤ x Giza ١٧٨ and GZ١٣٦٨-S-٥-٤ x Giza ١٧٨ for all traits.
٢. The best desirable mean value for F_٢-generations and six population analysis were showed from the crosses; Sakha ١٠١ x Giza ١٧٨, IET ١٤٤٤ x Giza ١٧٨, Agami x Giza ١٧٨, GZ١٣٦٨-S-٥-٤ x Giza ١٧٨ and GZ١٣٦٨-S-٥-٤ x Giza ١٨٢ for all traits under the two conditions.
٣. The SDS-PAGE of water soluble protein in the genotypes; Giza ١٧٨, IET١٤٤٤, Agami x Sakha ١٠٣ and GZ١٣٦٨-S-٥-٤ x Giza ١٧٨ exhibited a total of ١٥, ١٥, ٢١ and ٢٠ bands under normal condition and ١٤, ١٢, ٢٢ and ١٥ bands under drought conditions.
٤. From the foreign discussion, it could be concluded that, the crosses; Agami x Sakha ١٠٣, GZ ١٣٦٨-S-٥-٤ x Giza ١٧٥ and GZ ١٣٦٨-S-٥-٤ x Giza ١٧٨ were contained of ٤, ٧, ٥, ٦, ٥, ٥, ٣, ٦ and ٤ bands under drought conditions using OPA-٠٦ primer, while, these band were not appeared in the other genotypes, which indicated that the bands were found to be index for drought tolerance.

**تأثير التسميد بالآزوت والكالسيوم والبورون علي إنتاجية وجودة بنجر
السكر تحت نظم زراعة مختلفة**

EFFECT OF NITRGEN, CALCIUM AND BORON FERTIIZATION ON
PRDUCTIVITY AND QUALITY OF SUGAR BEET UNDER DIFFERENT
PLANTING PATTERNS

by

Hitham El-Sayed Ahmed El-Sayed Nemeat – Alla

Abstract

Two field experiments were conducted at the Experimental Farm of Sakha Agricultural Research station, ARC, Egypt during ٢٠٥/٢٠٠٦ and ٢٠٦/٢٠٠٧ growing seasons to study the effect of nitrogen, calcium and boron fertilization on growth, productivity and quality of sugar beet under different planting pattern.

- ١- Beets of ٨٠cm – ٢ side pattern accumulated the greatest dry matter. Increasing nitrogen rate increased accumulated dry matter / pant. Also, application of B and Ca significantly increased dry matter accumulated / plant.
- ٢- Beets of ٥٠cm – ١ side pattern produced the highest top, root and sugar yields per plant and Fadden. Increasing nitrogen level from ٩٠ to ١٢٠ kg N / fad. Significantly increased top, root and sugar yields. Application of B and Ca fertilizer had a significant effect on these characters.
- ٣- Planting pattern revealed on significant differences in TSS, Soluble non sugar, extractable white sugar % and looses sugar %, while beets of ٥٠cm – ١ side pattern produced the greatest gross content. Application of N – fertilizer to sugar beet tended to decreased TSS content, but it increased soluble non sugar. Application of B and Ca significantly influenced TSS %. N, B and Ca fertilizer had no significant effect on extractable white sugar % and looses sugar %.

Generally, from the obtained data it can be concluded that plant population of ٥١.٦٠٠ ants per Fadden distributed on one side of ridges ٥٠cm apart with ١٢٠ g N / fad. And application (١.٥ kg B + ١٠٠ kg ca / fad.) could be recommended for optimum root and extractable white sugar yield per unit area at Kafr EL – Shaik Governorate

دراسات علي الصفات الفسيولوجية و المورفولوجية المرتبطة بالمقاومة للجفاف في الأرز

Studies on physiological and morphological traits associated with drought resistance in
rice

(*Oryza sativa* L.)

By

Mahmoud Mohamed Mahmoud Gaballah

Summary

The presented study was carried out at the Farm of the Rice Research and Training Center, Sakha, Kafer EL-Shiekh, Egypt, during ٢٠٠٥, ٢٠٠٦ and ٢٠٠٧ seasons. The studied involved eight rice varieties, i.e., IET١٤٤٤, Moroberekan, BG-٣٥-١, Hexi٣٠, Giza١٧٨, Giza١٨٢, Sakha١٠١ and Sakha١٠٤ beside their F١'s and F٢'s crosses. The parents and F١ were evaluated under two successive rice growing seasons, as well as under two environments; i.e., normal and drought stress. Twenty four traits; i.e., plant height, days to heading, panicle length and number of tillers/plant for vegetative traits, grain yield/plant, ١٠٠-grain weight, harvest index, number of panicles/plant, dry matter production, sterility percentage and drought susceptibility index for yield traits, flag leaf angle, flag leaf area, flag leaf thickness, chlorophyll content, nitrogen content, potassium content, relative water content and water use efficiency for physiological traits and for root traits were root : shoot ratio, root length, root numbers, root thickness and root volume were studied. The ٢٨ F٢ populations were evaluated for twelve traits involved; days to heading, plant height, number of tillers/plant as vegetative traits, grain yield/plant, harvest index, dry matter/plant, sterility percentage and drought susceptibility index as yield and its components, flag leaf angle, relative water content and water use efficiency as physiological traits. Randomized complete block design with three replications was used and the data were analyzed according to Griffing, ١٩٥٦ method ٢, model ١ and Hayman, ١٩٥٤.

استجابة بعض اصناف القمح للتسميد الحيوى

RESPONSE OF SOME WHEAT CULTIVARS TO BIO-FERTILIZATION

By

El-Sayed Abd El-Maksoud Mohamed Abo-Marzoka

Abstract

Two series of experiments were conducted at Sakha Agricultural Research Station Farm during ٢٠٠٥/٢٠٠٦ and ٢٠٠٦/٢٠٠٧ seasons to investigate the effect cultivars, mineral and biofertilization of nitrogen and phosphorus on growth, yield and yield components of wheat. The first experiment included ٢٤ treatments, ٢ cultivars x ١٢ nitrogen treatments i.e.,

- | | |
|------------------------------|-----------------------------------|
| ١- ٥٠ kg N/fed. | ٢- ٥٠ kg N/fed.+ Cerealien, |
| ٣- ٥٠ kg N/fed+ Microbien. | ٤- ٥٠ kg N/fed.+ Rizobacterien. |
| ٥- ٧٠ kg N/fed. | ٦- ٧٠ kg N/fed.+ Cerealien, |
| ٧- ٧٠ kg N/fed. + Microbien. | ٨- ٧٠ kg N/fed.+ Rizobacterien. |
| ٩- ٩٠ kg N/fed. | ١٠- ٩٠ kg N/fed. Cerealien, |
| ١١- ٩٠ kg N/fed.+ Microbien. | ١٢- ٩٠ kg N/fed.+ Rhizobacterien. |

The second experiment included ١٢ treatments, ٢ cultivars x ٦ treatments i.e.,

- | | |
|---|---|
| ١- ٠ kg P _٢ O _٥ /fed. | ٢- ١٥.٥ kg P _٢ O _٥ /fed. |
| ٣- Phosphorien | ٤- Mycorrhizae. |
| ٥- ١٥.٥ kg P _٢ O _٥ /fed.+Phosphorien. | ٦- ١٥.٥ kg P _٢ O _٥ /fed.+Mycorrhizae. |

The two cultivars in both experiments was Sakha ٩٤ and Giza ١٦٨. Studied characters, five plant samples were taken from sub-plots at age ٥٠, ٦٥, ٨٠, ٩٥ and ١١٠ days to estimate DN/m^٢, plant height, L A, LAI, growth attributes and photosynthetic pigments. Yield and yield components, heading date, spike length, No.of spikelets/spike, No. of grain/spike, ١٠٠٠-grain weight, grain and straw yield and some technological traits.

The results obtained could be summarized as follows :

- ١- Sakha ٩٤ cultivar significantly superiority Giza ١٦٨ in DM/m^٢, % leaves, LA/plant, LAI, Flag leaf area, CGR, NAR, Chl a and total photosynthetic pigments

- ٢- Sakha ٩٤ cultivar recorded highest value in plant height at harvest, No. of tillers/m^٢, spike length, No. of grains/spike, ١٠٠٠-grain weight, grain yield/fed. and straw yield/fed. whereas Giza ١٦٨ gave the higher harvest index.
- ٣- Sakha ٩٤ gave the higher values to hectoliter, flour No. ١ %, wet and dry gluten % and crude protein % whereas Giza ١٦٨ gave higher carbohydrate %.
- ٤- Increasing N levels up to ٩٠ kg/fed. significantly increased DM/m^٢, plant height, LA/plant, LAI, CGR, Chl a and total photosynthetic pigments without significantly differences with ٧٠ kg N/fed. with biofertilizer.
- ٥- Increasing N rates led to delayed heading date and significant increased plant height at harvest, No. of tillers/m^٢, No. of spikes/m^٢, spike length, No. of spikelets/spike, No. of grain/spike, grain weight/spike, ١٠٠٠-grain weight, grain yield/fed. straw yield/fed. and harvest index % with out significantly differences with ٧٠ kg N with biofertilizer.
- ٦- Flour No. ١ and No. ٢ and crude protein % increased with increasing N levels, while bran % decreased .
- ٧- The fertilization with ١٥.٥ kg p_٢O_٥/fed. with biofertilization led to increased in DM/m^٢. LA/plant, LAI and total photosynthetic in leaves.
- ٨- Grain yield/fed., straw yield/fed. and yield components significantly increased by mineral and biofertilization phosphorus and a good quality of grain.

الثبات الوراثي وتقييم بعض التراكيب الوراثية من القطن المصري

Genotypic stability and evaluation of some Egyptian cotton genotypes

By

Shaker Abd El-Aziz Shaker

Abstract

These study were carried out to evaluate and estimate the stability parameters of line genotypes, four of them belong to the extra long staple category i.e. Giza ٨٧, Giza ٨٨, Giza ٨٨, Giza ٩٢ and (Giza ٧٧ x Pima S٦) and five belong to the long staple category i.e. Giza ٨٥, Giza ٨٦, Giza ٨٩, (Giza ٨٩ x Giza ٨٦) and (Giza ٨٩ x Pima S٦) at seven different locations in the lower Egypt i.e. Kafr El-Dawar (El-Beheira), Sedi Salim (Kafr El-Sheikh), Belkas (El-Dakahlia), Kafr saad (Damietta), Samanod (El-Gharbia), Menuf (El-Menufia) and Abou Kepeer (El-Sharkia), during the two growing seasons ٢٠٠٧ and ٢٠٠٨. The experimental design was a randomized complete block design with four replications.

The traits study were i.e. seed cotton yield, lint cotton yield, Boll weight, lint percentage, seed index, lint index, earliness percentage, position of the first fruiting node, ٢.٥% span length, length uniformity ratio, micronaire reading, fiber maturity, fiber elongation, fiber strength and yarn strength.

All traits showed significant mean squares for genotype, environments and genotype x environment interaction. The varieties Giza ٨٨ and Giza ٩٢ surpassed all genotypes from the extra long staple category in most traits at El-Beheira, Kafr El-Sheikh, El-Dakahlia and Damietta location. Also, Giza ٨٦ and the new hybrid (Giza ٨٩ x Giza ٨٦) surpassed all genotype from the long staple category in most traits (yield and some yield components) at El-Gharbia, El-Menufia and El-Sharkia locations.

The combined analysis showed that both the linear and non-linear (poold deviation) components were significant, for all traits. Indicating the presence of both predictable and un-predictable components of genotype-environment interaction. Average stability degrees were recorded for seed cotton yield K.F for Giza ٨٥, Giza ٨٦, Giza ٧٧ x pima S٦, Giza ٨٨ and Giza ٩٢; lint cotton yield for (Giza ٨٩ x Giza ٨٦), (Giza ٨٩ x Pima S٦), Giza ٨٨ and Giza ٩٢; boll weight for Giza ٨٦, Giza ٨٨ and Giza ٩٢; for lint percentage Giza ٨٦ and Giza ٨٩; seed index for Giza ٨٥, Giza ٨٦, Giza ٨٩, (Giza ٨٩ x Giza ٨٦), (Giza ٧٧ x S٦) and Giza ٩٢; lint index for Giza ٨٥, Giza ٨٦ and (Giza ٨٩ x Giza ٨٦); earliness percentage for Giza ٨٥, Giza ٨٩, (Giza ٨٩ x Giza ٨٦), (Giza ٧٧ x Pima S٦), Giza ٨٨ and Giza ٩٢; position of the first fruiting node for (Giza ٧٧ x Pima S٦) and (Giza ٨٩ x Giza ٨٦); length uniformity ratio for Giza ٩٢; micronaire reading for (Giza ٧٧ x Pima S٦) fiber maturity for Giza ٨٦ and Giza ٩٢, while all genotypes under study were unstable for fiber strength and Yarn strength. Both of the varieties Giza ٨٦ and Giza ٩٢ recorded stability degrees in most characters than the rest genotype so, may be considered as breeding stocks for specific traits.

**تقييم المحصول و صفات جوده الحبوب في بعض أصناف الأرز الخاصة
تحت مواعيد زراعته و ظروف تخزين مختلفة**

EVALUATION OF YIELD AND GRAIN QUALITY CHARACTERS OF SOME
SPECIAL RICES UNDER DIFFERENT PLANTING DATES AND STORAGE
CONDITIONS

By

Nessrin Nazmy Bassuony Abed El-hamed

Abstract

Two field experiments were carried out at the experimental farm of Sakha Agricultural Research Station, Kafr El-Sheikh Governorate, Egypt, during the two successive summer seasons of ٢٠٠٦ and ٢٠٠٧. The field experiments were conducted to study effect of sowing dates on growth, yield, its attributes and grain quality of special rices (Hybrid ١, E.Yasmine, Waxy rice and Black rice) and also to study the effect of some storage conditions on grain quality characters of the same rices.

Days to heading decreased by delaying time of planting. Early time of planting gave highest plant than the other time of planting and increased the total number of tillers and number of panicle. E.hybrid ١ was superior in panicle length, panicle weight, number of filled grains, sterility, grain yield, straw yield and total biomass characters. Medium time of planting (May, ٥) recorded best results for these characters except panicle length.

E.yasmine variety recorded the maximum value of grain length and grain shape and did not affected significantly by times of planting.

E.yasmine variety was better in milling recovery than four rice varieties under study. May, ٥ was the best time of planting. Also was the best degree of milling. At zero time gave the highest value in milling recovery, degree of milling and cracks, and there was any significant between storage places under studying on milling recovery, but stored in refrigerator gave the highest value in milling recovery, degree of milling and cracks

The cooking and eating quality characters results did not affect significantly due to the difference in time of planting, storage period and storage. And waxy rice gave the highest value in amylose content but the lowest value recorded by black rice. These characters were not close between the four tested varieties

تأثير مستويات مختلفة من مصادر النتروجين الكيماوى و الحيوى

على انتاجية وصفات الجودة لبعض هجن الذرة

Effect of different levels of chemical and biological sources of nitrogen on the productivity and quality characters of some hybrids of corn (Zea Mays L.)

By

Amany Mahmoud Mohamed Mohamed

Abstract

Two field experiments were carried out in Agriculture Faculty Farm of Kafr El Sheik during ٢٠٠٦ and ٢٠٠٧ to study the effect of biofertilizer (Azotobacter) with levels of mineral nitrogen under two plant densities on grain yield, yield component and grain quality of nine white and yellow hybrids of maize. The studied factors were: ١-Two plant densities, ٢٠ and ٣٠ thousand plant/fad. Which were placed in the main plot of the design ٢-Six fertilization levels i.e. without fertilizer (F^١), Azotobacter only (F^٢), ٣٠ kg.N. + Azoto (F^٣) , ٦٠kgN + Azoto (F^٤), ٩٠ kg.N.Azoto (F^٥) and ١٢٠ kg.N /fad.(F^٦). As sub plots ٣-Nine maize hybrids as sub – sub plots in a design of split – split plot design with three replications. Results showed that increasing the applications of biofertilizer (Azotobacter) with mineral nitrogen fertilizer Increased growth yield, yield components and grain quality . The application of fertilizations at rate of ٩٠ kgN/fad.gave the highest grain yield and grain quality . Grain yield of S.C.١٠ was significantly higher than other hybrids. Maize grain yield was significantly by raising plant density from ٢٠ to ٣٠ thousand plant/fad. at two seasons and combined, respectively. Significant interactions were detected among maize hybrids, and biofertilizer (Azotobacter) with mineral nitrogen fertilizer and plant population densities. Increasing the applications of biofertilizer (Azotobacter) with mineral nitrogen fertilizer and plant population densities decreased oil percentage in grain and carbohydrate percentag. Increasing plant population densities decreased protein percentage, ash contant and fiber percentage.

**تأثير بعض تواليف الأسمدة العضوية و المعدنية على
محصول القطن**

EFFECT OF SOME ORGANIC AND
MINERAL FERTILIZER COMBINATIONS ON COTTON

By
Amal Samy Ali Abdel-AaL

Abstract

The present study was conducted to study the effect of the integration of nitrogen sources (Urea ٤٦% N, Enciabein ٤٠% N and compost) and combination of nitrogen source, bacterial inoculation (Phosphorein and Rhizobactrein biofertilizers) and foliar spraying with Ascobein + mixture of microelements on growth, growth analysis, seed cotton yield and yield components of cv. Giza ٨٦.

Plants received urea fertilizer at the recommended rate (٦٠ kg N/fed.) alone or ٣٠ kg N as urea + ٩ m^٣ compost/fed produced significantly greater dry matter(g/plant), leaf area index, crop growth rate, plant height, boll weight, seed cotton yield and lint cotton yield than those received ١٨ m^٣ compost/fed alone. Plants received urea fertilizer at the recommended rate (٦٠ kg N/fed.) alone or ٢٠ kg N as urea + ٩ m^٣ compost/fed surpassed those received slow release nitrogen fertilizer alone (enciabein) in the mentioned treats.

Applying bacterial inoculation ((Phosphorein + Rhizobactrein) along with foliar spraying with ascobein and mixture of microelements resulted in a significant increase dry matter(g/plant), leaf area index, crop growth rate, plant height, boll weight, seed cotton yield and lint cotton yield compared with control treatment.

Fiber quality (fiber length parameters, fiber bundle tensile properties, Micronaire reading and colour characters were not affected by nitrogen sources, biofertilizer and their interaction in both seasons.

It can be concluded that application of ٣٠ kg N as urea + ٩ m^٣ compost/feddan as well as inoculation with biofertilizer (Phosphorein + Rhizobactrein) along with foliar spraying with ascobein and microelements could be recommended for optimum seed cotton yield under the condition of this study.

قسم النبات الزراعى

تقييم التثبيت التكافلى للنتروجين فى نباتات الفول البلدى

تحت ظروف الملوحة

EVALUATION OF SYMBIOTIC NITROGEN FIXATION OF FABA BEAN PLANTS UNDER SALINE CONDITIONS

By

Nagwa Mohamed Mohamed El-Khateeb

Abstract

Soil salinity is one of the most important environmental factors affecting the growth and yield of most field crops such as legumes and effect on soil fertility and soil microbial populations especially the microorganisms which can symbiotically fix air nitrogen with legumes (Rhizobia). Isolates efficient nitrogen fixing Rhizobium were isolated from different saline locations in Kafr El-Sheikh Governorate. In vitro and in vivo evaluation of their salinity tolerance was studied as follows.

١. Nodules were collected from faba bean plants grown in different salt-affected locations (Baltim, Elhamoul and Kafr El-Sheikh). These locations differed in their electrical conductivity (EC).
 ٢. The nodules were used for isolation of rhizobia using YMA medium. Purity tests were undertaken for confirmation of isolates purity and were identified.
 ٣. Strains were obtained and subjected to *in vitro* evaluation for salinity tolerance by growing in medium containing series of salt concentrations.
 ٤. The salt-tolerance activity was also, *in vivo* under sterilized conditions conducted by their inoculation into faba bean seedling (var. Nobaria ١) grown in sandy soil under aseptic conditions in the presence of different salinity levels (٠, ٣, ٦, ٩ and ١٢ dS/m), it was evident that a notable decrease in the symbiotic N_2 -fixing parameters of faba bean plants by increasing salinity concentrations. On the other hand, inoculation with *Rhizobium* strains showed significant increases in symbiotic N_2 -fixing parameters.
 ٥. A pot experiment under natural conditions in clay and sandy soil was carried out to study the effect of salinity levels (٠, ٦, ٩ dS/m) on symbiotic N_2 -fixing parameters of faba bean (var. Nobaria ١ and Sakha ١) under inoculation with salt-tolerant strains (F١ and E١) with nitrogen fertilization.
- a. The increase of salinity significant decrease the symbiotic N_2 -fixing parameters of faba bean plants.

- b. Inoculation with salt-tolerant *Rhizobium* strains and fertilization with ٢٥% N showed significant increase in symbiotic N_٢ fixing parameters.
٦. To certain the efficiency and salt-tolerance of rhizobial strains F_١ and E_١ under field conditions, the experiments were carried out at saline soils in Kafr El-Sheikh Governorate (Emera in Baltim as a sandy soil) (Qary-٦-Khergen in Elhamoul as a clay soil). To study responses of faba bean (var. Nobaria ١ and Sakha ١) plants to inoculation with salt-tolerant *Rhizobium* strains under saline field conditions.
- a. The symbiotic N_٢-fixing parameter significantly decreased by increasing soil salinity especially in Baltim field.
- b. The highest values were due to inoculation with F_١ and E_١ (fertilized with ٢٥% N) that attained highly significant increases in symbiotic N_٢ fixing parameters.
٧. Tested fungicides were found to be toxic to rhizobial strains. Vitavax was found to be more toxic even at low concentrations. Ground-up was less toxic at one forth recommended dose. As well as, application of these results in saline soils may help in reducing the effect of environmental pollution which produced from use of chemical fertilizers.

قسم أمراض النبات

دراسات بيولوجية وسيرولوجية وجزيئية على فيروس الموزايك العادي

في الفاصوليا في مصر

BIOLOGICAL, SEROLOGICAL AND MOLECULAR STUDIES ON BEAN
COMMON MOSAIC VIRUS IN EGYPT

By

Mohamed Mahmoud Ali El-Sawy

Abstract

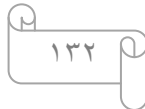
Bean common mosaic potyvirus (BCMV) was isolated and identified from naturally infected prech bean. Identification was done according to biological, serological and molecular methods. For the biological methods, BCMV induced sever mosaic, vein banding, malformation of leaOets, leaf curling and stunting of bean plants cv. Giza ٦. BCMV infected about seventeen plant spp. belonging to four families. BCMV were transmitted mechanically by sap inoculation and by Myzus persicae Sulz, Also BCMV were transmitted by seeds which produced from infected bean plants. BCMV dilution end point ranged from ١٠-٢_١٠- thermal inactivation point ranged from ٥٦-٥٨°C and longevity in vitro was ١٢ days .

Electron microscopic examination showed that the virus particles, the virus has fixable filamentous with ٧٥٠ nrm in length and ١٤ nm in width and ultratin section of BCMV infected leaves revealed inclusion bodies: pinwheel in cytoplasm .

Serological methods by used indirect ELISA were showed positive reaction indicated that the BCMV was related serologically to potyvirus. Molecular studies showed that the oligonucleotide primer specific for BCMV were successfully amplified a DNA fragment (٣٠٠ bp) from BCVMCP gene by RT-PCR. Also, the studies were showed the impact of BCMV on some vegetative growth parameters and some yield component of bean plants .

The studies were showed the significant effect of BCMV on soluble sugars contents in leaves and seeds of infected bean plants and the impact of BCMV on amino acids contents in leaves and seeds of infected bean plants .

The studies were showed the effect of extracts of plant seeds on BCMV control .



قسم تكنولوجيا الأغذية

دراسات كيميائية وتكنولوجية على بعض الأغذية دراسات كيميائية وتكنولوجية وبيولوجية على ثمرة الخرشوف

CHEMICAL, TECHNOLOGICAL AND BIOLOGICAL STUDIES ON ARTICHOKE
(Cynara scolymus L.) FRUIT

By

Mohamed Abd El-Hamed Hassan Gomaa

Abstract

The present study was performed to find out the possibility of taking all the benefits of artichoke receptacle and bracts which is considered as a by product of artichoke industry (about ٦٠% residues). The receptacle and bracts have high nutritional value and contain high source of dietary fiber, mineral content, phenolic compounds (antioxidants) which is used as alternative natural source for synthetic antioxidants in industry. Also, studying the possibility of using artichoke receptacle powder and bracts extracts on hepatic diseases, cholesterol and on the biological and histopathological effects in experimental rats which have hepatic injury and fibrosis induced by CCl₄.

The obtained results showed that artichoke bracts which can reach ~ ٦٠% of the industrial manipulation of artichoke can be considered a good source of natural antioxidant in food additives concerns associated of the use synthetic antioxidants.

Results should also that artichoke bracts extracts has antimicrobial activities. Biological studies showed that the used doses can suppress the onset of liver fibrosis, total bilirubin and reducing blood cholesterol.

So, it could be recommended that, using artichoke receptacle and bracts either in fresh and extracts or in a powder for manufacturing of food products for its high content of anti oxidants and its positive effect on hepatic and blood lipid diseases and significant effect on the health of the people. For this reason, we also recommend to increase the cultivation area of artichoke.

قسم الميكنة الزراعية

استخدام التحكم الآلي في تحسين أداء آلات الحصاد التحكم الآلي في صدر آلة الحصاد الجامعة

USING AUTOMATIC CONTROL FOR IMPROVING PERFORMANCE OF HARVESTING MACHINES

"AUTOMATIC CONTROL FOR COMBINE HEADER"

By

Mohamed Abdallah Ibrahim Hassan

Abstract

Combines and reapers harvest the grain crops, the green grass and other similar plants therefore, the cutter bar should be able to cut from ٥٠ to ١٠٠ mm above the ground surface. The cutting parts should also be protected from hitting the rocks or the soil.

It should also be considered that any crop remains of cutting height on the ground after the harvest are losses.

The muddy conditions found in rice growing area proved difficulty, because the cutter could hit the ground when the combine header would sink into the soil. Running the stubble cutter into the soil would cause it to jam or partially plug up, making it ineffective.

Combines, in Egypt, face another big problem which hinders its movement on the agricultural land during the harvest. This problem is the jutting parts of the covered drainage rooms which are covered by plants and invisible to the combine operator. As a result, the combine crashes on these rooms causing great damage to it.

The main purpose of this study was to cut the crop at the lowest possible level by designing and manufacturing automatic control unit which controls upping/downing the combine header, in order to avoid the obstacles which face it when lowering the cutter bar level. On the other hand, designing and manufacturing another automatic control unit that stops the combine to protect the combine header from crashing on the high obstacles such as the jutting parts of the covered drainage rooms that spread over the agricultural land in Egypt.

Both automatic control units have been constructed locally at the engineering workshop of Rice Mechanization Center (R.M.C), Meet El-Deeba, Kafrelsheikh Governorate, Egypt during the year of ٢٠٠٦.

The experiments were carried out during rice harvest season of ٢٠٠٧ in order to compare two combine systems for the combine (Yanmar-CA٦٥V) under the same different operating conditions. The first combine has two automatic control units (combine with control system). But the second combine doesn't have two automatic

control units (combine without control system or the conventional combine). All experiments performed at the research farm of Rice Mechanization Center.

The obtained results may be summarized as follows:

- ١- The combine with control system gave a good performance at forward speed of ٢.٥ km/h and cutting height of ٠.٠٥ m.
- ٢- The conventional combine gave a good performance at forward speed of ٢.٥ km/h and cutting height of ٠.١٠ m.
- ٣- The combine with control system is strongly recommended since it gives lower loss and costs, and higher field efficiency compared to the conventional combine.

تطوير و تقييم أداء آلة دراس لتقطيع مخلفات المحاصيل

DEVELOPMENT AND PERFORMANCE EVALUATION OF A THRESHING MACHINE FOR CHOPPING CROP RESIDUES

By

Mohamed Abdel Monem Mohamed Arkoub

Abstract

This research was carried out to modify the thresher unit for chopping and cutting crop residues requirements to suitable length steer to different applications. Improvements stages are (a)Supplying a pre-cutting unit to facilitate and transmit feed rate and increase the cutting efficiency, and (b)Modify chopping drum and concave. Where, this modification will increase the utilization of thresher and tractor through chopping crop residues. Also, it consider a great contribution better than buying an imported machines which take more time in developing, training, reading policy and money cost . The studied parameter are, chopping drum speed m/s (r.p.m.) ١٩.١(٥٠٠), ٢٢.٨ (٦٠٠), ٢٦.٦ (٧٠٠) and ٣٠.٤ (٨٠٠)), Chopping knife type (Fixed and Flail), concave oval slot area (١٥,١٨ and ٢١ cm^٢), Speed ratio between chopping drum and pre-cutting drum (٤:٣ and ٤:٥), pre-cutting knife (conventional and spike) and the crop residues were rice straw, cotton stalks, banana, sugar cane bagasse, orchards, and water hyacinth. The experiments were carried out in Itay Barood district, Behira governorate, Egypt, during ٢٠٠٧ and ٢٠٠٨ seasons.

The results indicated that, the modified unit can be used successfully for chopping crop residues either for composting or animal feed. The results showed that, the cutting length percentage less than ٦ cm (animal feed), power consumption (kW), energy requirement (kW.h/Mg), productivity (Mg/h) and operating cost (LE/Mg), respectively, were ٨٤.٤ %, ٢٥.٢٣kW.h/Mg, ٢.٣٢ Mg/h and ٢١.٧٧ LE/Mg for rice straw, ٧٩ %, ٢٨.٥ kW.h/Mg, ١.٧٥ Mg/h and ٢٦.٤٠ LE/Mg for cotton stalks, ٦٣.٨ %, ٢٤.٦٣ kW.h/Mg, ١.٣٢ Mg/h and ٣٨ LE/Mg for banana, ٦٩.٧ %, ١٦.٣٧ kW.h/Mg, ٣.٩١ Mg/h and ١١.٩٣LE/Mg for sugar cane bagasse, ٧٤ %, ١٨.٢٤ kW.h/Mg, ١.٤٥ Mg/h and ٣٢.٦١ LE/Mg for orchards and ٩٠.٤ %, ٢٠.٧ kW.h/Mg, ١.٢٥ Mg/h and ٣٧.٣٥ LE/Mg for water hyacinth .

تطوير وحدة شتل الأرز لتناسب الظروف المصرية

DEVELOPMENT OF A RICE TRANSPLANTER UNIT APPROPRIATE FOR EGYPTIAN CONDITIONS

By

Mokhtar Mohamed Ibrahim El-Bandrawi

Abstract

Rice is one of the most important crops to overcome food shortage. Development the agricultural equipment such as rice transplanter to appropriate our local conditions of climate, soil and rice varieties. Early maturity of very promising varieties which have a short vegetative period that limits the number of panicles. Dense planting of rice varieties can overcome the limitation of short vegetative period. Experimental work was carried out at Gemmiza Research Station and Meet El-Deba Rice Research Center.

The following activities were carried out :

١. Modifying a Japanese rice transplanter to transplant at ١٥ cm between rows instead of ٣٠ cm, to get double density of ٣٦, ٤٢, and ٤٨ hills/m^٢ instead of ١٨, ٢١, ٢٤ hills/m^٢.
٢. Carrying out an experiment to evaluate the modified transplanter under skid spaces, water depth, and transplanting depths.
٣. Carrying a test included transplanter type before modifications, modified transplanter and the recommended methods of manual rice transplanting. Also, the effects of soil aging and water depth were studied. The second experiment included transplanting methods, rice varieties and plant densities.
٤. Invent seed distribution tray in nursery depending on seed numbers instead of seed weight or volume.
٥. Testing of the seed distribution under some factors of tray suction, seed level, and holes area and some rice varieties.

The most important results are:

١. In general, the modified transplanter recorded rice grain yield increment of ١٠-١٥% more than the manual recommended methods and ٢٥-٣٠% more than the original transplanter type.
٢. Appropriate soil compaction to improve soil properties for getting more productivity was carried out by using transplanter.
٣. The transplanter after modification suits Egyptian conditions of soil and varieties.
٤. Seed distributor tray got the best distributions and good seedling The tray saved ٢٠-٤٠% of required seed quantity for mechanical transplanting.

قسم الإرشاد الزراعى

التعرف على قائدات الرأى فى بعض مجالات الاقتصاد المنزلى

IDENTIFY FEMALE OPINION LEADERS IN SOME
HOME ECONOMIC AREAS IN EL-HEDOD VILLAGE KAFR
EL-SHEIKH DISTRICT, KAFR EL-SHEIKH GOVERNORATE

By

Noha El-Zahy El-Said Hassan

Summary

The main objective of this study was to identify the opinion leaders between the rural women in some fields of the domestic economy in El Hedod village, Kafr El Sheikh District, Kafr El Sheikh Governorate

The finding of the study may be summarized as follow:

١. Percent of opinion leaders in some areas of the domestic economy (food product manufacturing, preparation and cooking food, poultry rearing and family planning).

Every respondent took five degrees considered as an opinion leader. So, numbers of opinion leaders was ٦٧ (٢٦%), ٩١ (٣٦%), ٤٥ (١٨%), ١٧ (٧%) and ١١ (٤%) in the field of food product manufacturing, preparation and cooking food, growing of home birds, family planning and total field respectively.

٢. Characteristics of the opinion leadership in the general field (food product manufacturing , preparation and cooking food, poultry rearing and family planning)

Results indicated that about ٥٥ % of the respondent's age were between ٤١ and ٥٣ year, ٨٢% were married, ٥٤% were ignorantly.

حلية التريية

أولاً: الماجستير

قسم أصول التربية

وعى طلاب التعليم الأساسي بقيم المواطنة (دراسة ميدانية)

Awareness of Citizenship Values in Basic instruction Students " Field Study "

By

Aml Abd el-kader ghazy

Abstract

This study aims to identify how the second cycle of basic education students are aware of the values of citizenship and the role that can be played by primary schools to instill in students the values of citizenship Students need to know clearly what their rights and their duties towards the community to commit to perform them.

The study used a descriptive approach, since it is one of the appropriate methods to the nature and objectives of the current study, in terms of identifying information on the citizenship values required to be developed in prep students. The researcher also applied a survey to students to identify their awareness of the values of citizenship.

Schedule of the Study:

Chapter One: Introduction and general preview.

Chapter Tow: Citizenship and Explane Theories.

Chapter Three: Primary Education and Awareness to the Values of Citizenship.

Chapter Four: Field Study.

Chapter Five: Results and Recommendation.

The present study deduced the following results:

- ١- Study field results indicated a contradiction in the sample levels of awareness of the values of citizenship.
- ٢- The study showed statistically significant differences between boys and girls in the awareness of some of the values of citizenship.
- ٣- Study revealed significant differences between the four environments in the awareness of some of the values of citizenship.
- ٤- There are factors that help to develop awareness of the values of citizenship; perhaps the most important one is the status of primary school and its role in creating a good citizen.
- ٥- The good school example for both teachers and the administrative system contribute to the development of awareness of the values of citizenship in students; because they are representing what they see as behavior and value.

فلسفة تكوين المعلم فى عصر العولمة

TEACHER'S FORMATION PHILOSOPHY IN
THE AGE OF GLOBALIZATION

By

Amany Kamal Abou Sekeen

Abstract

The research studies globalization and its reflections on Egypt. The research studies the philosophy of the current formation. For teacher with its positives and negatives. It presents a philosophy for teacher's formation in the age of globalization. The field study presented the vision of faculty of education. Students about teacher's formation philosophy. Results of the study assert the importance of the creative. Interaction with the age of globalization, and the importance of developing teacher's formation programmes to face the challenges of globalization. The study recommends developing curricula, using technology to achieve this aim and developing the infrastructure for faculties of education.

The study contains six chapters :

- ١- A general frame of the study.
- ٢- Globalization and its effects in Egypt.
- ٣- Philosophy of current teacher's formation.
- ٤- Teacher's formation Philosophy in the age of Globalization.
- ٥- Field study .
- ٦- Results of the study and its recommendations.

القيمة الاقتصادية للتعليم الجامعي بجامعة كفر الشيخ

THE ECONOMIC VALUE OF HIGHER EDUCATION IN KAFRELSHEIKH UNIVERSITY

By

Fatma Ramadan Awad El-Nagar

Abstract

This study aims at recognizing the reality of higher education in Kafrelsheikh University and the extend of achieving the university objectives and different functions, in addition to formulating a suggested conception to activate the value of human resources in the social education, and elevating the economic value of Kafrelsheikh University higher education as a result. The researcher implemented the descriptive method during collecting data process. The researcher applied a questionnaire as a research tool within her study to recognize the reality of higher education with the university. It was administered to (٢١٢) staff members belong to Kafrelsheikh University.

Schedule of the Study:

Chapter One: Introduction and general preview

Chapter Two: University Education in Egypt

Chapter Three: The economic Value of education though the Stages of developing the Economic Ideology

Chapter Four: Role of Higher Education in Realizing the Economic development

Chapter Five: Field Study

Chapter Six: Results and Recommendation

The present study deduced the following results:

١. Kafrelsheikh University independence is considered a scientific, ideological and cultural addition to the Delta that should be used effectively to serve the local society, and search for defects of achieving some of the university goals, besides present the suitable solutions of these defects and hindrances
٢. The economic ideology can not be studied without referring to the roots of this ideology and its origins. This is mainly because each theory has its own historical roots and circumstances of launching, in addition to the results that help unveil its ideology.
٣. Development is one of the main challenges that are facing our society, including all its different models. To realize this development, a scientific basis is required, in addition to lots of scientific research and applicatory studies directed towards

solving the problems facing the development process as well. Such scientific research is based on an educational system that develops talents and supports creativity.

٤. There are no significant differences among the mean scores of the staff members' questionnaire in both theoretical and applicatory faculties.
٥. The university cares a lot for the scientific research and participation of the staff members in the interior conferences.
٦. Retreating of the staff members from participating in society service and developing the environment activities. Such a phenomena requires he study and investigation of defects and hindrances
٧. Interest of the university administration in developing the infrastructure and its requirements
٨. There is no balance between the students' numbers and staff members' numbers and there is no balance between the distribution of students in both the theoretical and practical faculties as well.

قسم علم النفس الربوى

أثر تبين أساليب التعلم في ضوء نموذج " دن " على بعض المتغيرات المعرفية واللامعرفية لدى طلاب المرحلة الثانوية

The Effect of Learning Styles Variability in
the light of "Dunn" Model on Some Cognitive
and Non-Cognitive Variables of Secondary
School Students

Summery

This study is considered one of field – studies in which the researcher tries to study the effect of learning styles – variation on the light of Dunn s Model and making a consistent between education context and preferences learning styles of students and uncovering about the effect of variation of these styles on some knowledge and non-knowledge variations, secondary-school stage students have.

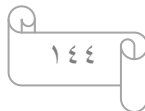
On the light of this, it is possible to prefix study-importance :-

- ١- It helps to know the ways by which students learn, in turn, may help the scientists of educational-Psychology to design, and preare the available styles for the purpose of promoting the educational process .
- ٢- The importance of uncovering about the preferable learning styles in learning is considered, one of the most important approaches which help teacher organize the best classroom, running it well; facilitating learning process and managing it well .
- ٣- This study acquires particular importance as it depends in its concept on learning styles on a strong theoretical basis, " Dunn s model " for learning-methods which is considered the most comprehensive of learning styles as it is based on the results of studies, run on its light .
- ٤- It helps teachers by knowing learning styles / methods attached to their students and may help, use different materials in estimating their students by a way make them grow; develop; and vary their teaching methods.
- ٥- Acquinting some prevailing learning studies for secondary stage-students, the matter which may share in their learning from the basis that the more pairing between teaching - method and learning styles, the more, the academic- achievement increases.

tic-class (١ st, ٣ rd years) ?

Tools of the study :-

- ١- Dunne's Learning style inventory. Arabization by Mourad Ali Essa.
- ٢- Scale of the ability to solve problems Measure. prepared by: the researcher .



- ٣- Test of creative-thinking : Arabization by Magdy Abd El-Karim Habib (٢٠٠١).
- ٤- Measure of academic achievement motive-prepared by: Alaa Mahmoud El-Sharawi (٢٠٠٣) .
- ٥- Measure of test anxiety prepared by the researcher.

Statistic-Means :-

- ١- Descriptive statistical-means :-
 - Arithmetic-means and measurement variations .
 - Correlation-element of Pierson .
- ٢- Indicative Statistical-Means :
 - One-way Analysis of variance .
 - " T " test for indicating – differences between means .
 - Dunnett " C " test for multiple comparisons .

Results of the study :-

The study has reached to the following results :

- ١. There are no indicative static differences at Academic achievement between degrees averages of eight learning – styles of students groups; (Analytic Auditory, Analytic visual, Analytic tactual, Analytic kinesthetic, Global Auditory, Global visual, Global tactual, and Global kinesthetic) according to "Dunn" list of learning – style where " f " value has reached (٠.٥٠٣) and it is unindicative static value .
- ٢. There are no indicative static differences in problem solving between marks averages of eight learning – styles of students groups (Analytic Auditory, Analytic visual, Analytic tactual, Analytic kinesthetic, Global Auditory, Global visual, Global tactual, and Global kinesthetic) according to " Dunn " list of learning – style where " f " value was (١.٩١) and it is unindicative value .
- ٣. There are no indicative static differences at creative thinking (fluency – flexibility – originality – total mark) between marks averages of eight learning – styles of students groups (Analytic Auditory, Analytic visual, Analytic tactual, Analytic kinesthetic, Global Auditory, Global visual, Global tactual, and Global kinesthetic) according to "Dunn" list of learning – style where " f " has reached (٠.٣٤٩) – (١.٠٨٢)-(٠.٣٢٣) and it is unindicative value .
- ٤. There are no indicative static differences at Achievement motivation (confidence of success – distinguishing interest- preference to achievement motivation – total mark) between marks averages of eight learning – styles of students groups (Analytic Auditory, Analytic visual, Analytic tactual, Analytic kinesthetic, Global Auditory, Global visual, Global tactual, and Global kinesthetic) according to "

Dunn " list of learning – style where "f" value were (٢.١٦٦ - ٣.٤٥٦ – ٣.١٢١- ٢.٣٢٩) and it is indicative value on (٠.٠٥), (٠.٠١) values .

٥. There are no indicative static differences at test Anxiety between marks averages of eight learning – styles of students groups (Analytic Auditory, Analytic visual, Analytic tactual, Analytic kinesthetic, Global Auditory, Global visual, Global tactual, and Global kinesthetic) according to "Dunn" list of learning – style where " f " value has reached (١.٤٢٧) and it is unindicative value .
٦. There are indicative static differences between student (males–females) in theeight learning – styles of students groups (Analytic Auditory, Analytic visual, Analytic tactual, Analytic kinesthetic, Global Auditory, Global visual, Global tactual, and Global kinesthetic) according to "Dunn" list of learning–style the male students win as " f " value was on level (٠.٠١) .
٧. There are no indicative static differences between (١st and ٢rd class) eight learning–styles of students groups (Analytic Auditory, Analytic visual, Analytic tactual, Analytic kinesthetic, Global Auditory, Global visual, Global tactual, and Global kinesthetic) according to "Dunn" list of learning – style first year was the best as " T " value was the ٠.٠١ level .

فعالية برنامج تدريبي لتحسين الوعي الصوتي لدى عينة من الأطفال ذوي العسر القرائي في مرحلة رياض الأطفال

The Effectiveness of A Training Program For Improving Phonological Awareness For
A Sample of Dyslexic Children In Kindergarten

Summery

This study is concerned with a wide sector and a large category of children in the kindergarten stage which represents the most important stage in the child's life. Most studies and researches have reported that the first five years of the child's life represent the most critical and important stage in his life. It is considered the first seeds in human construction as it shapes, to a considerable extent, the type of socialization and care acquired by the child's character throughout his development, thinking, and behaviour, influencing his skills and abilities as he faces the ٢١st century challenges with the results of the scientific an psychological revolution.

The recent study is concerned with phonological awareness and its skills due to the fact that training on phonological awareness which accompanies the teaching of reading develops the reading and spelling skills in the future.

The study is concerned with children with dyslexia and its early diagnosis in order to determine the appropriate treatment and prevention in the future.

School and family -responsible for helping children acquiring academic, social and emotional skills as well as personal and social adjustment -benefit from the research results. Consequently, that results in well-adjustment and happiness for both the individual and society.

The study provides a training program which can be applied to similar cases in other kindergartens and schools. The study revealed that

١. There are statistically significant differences in the phonological awareness (dimensions – total score) between the two score means of the experimental group members in the pre and post-tests to the advantage of the post-test.
٢. There are statistically significant differences in the phonological awareness (dimensions – total score) between the two score means of the experimental and control group members in the post-test to the advantage of the experimental group.
٣. There are no statistically significant differences in the phonological awareness (dimensions – total score) between the two score means of the control group members in the pre and post-tests.
٤. There are no statistically significant differences in dyslexia between the two score means of male and female members in the pre and post-tests.

٥. There are statistically significant differences in dyslexia degree between the two score means of the experimental group members in the pre and post-tests to the advantage of the post-test.
٦. There are statistically significant differences in the dimensions and skills measured by the early scan battery of dyslexia between the two score means of the experimental group members in the pre and post-tests to the advantage of the post-test.

أساليب التعلم لدى الصم في ضوء بعض المتغيرات الأسرية

Learning styles of The deaf in light of
family variables

by

Wesam Amin Mohammed Al-Shoraky

Summary

Study Objectives :

- ١- Recognizing the preferred learning styles of the deaf students (hearing disabled) in some of demographic and family variables.
- ٢- Recognizing the relationship between the learning styles of the deaf students (Sensory / activist - Visual - Individual - collective) and the styles of parental treatment (distinction - control and dominance - swing - over-protection - normal treatment methods) .
- ٣- The disclosure differences in learning styles of the deaf students (Sensory / activist - Visual - Individual - collective) according to gender (male - female) .
- ٤- Disclosure of differences in the learning styles of the deaf students (Sensory / activist - Visual - Individual - collective) according to the place of residence (rural - attended) .
- ٥- Disclosure of differences in the learning styles of the deaf students (Sensory / activist - Visual - Individual - collective) according to family size (large - average - small)
- ٦- Disclosure of differences in the learning styles of the deaf students (Sensory / activist - Visual - Individual - collective) according to the birthday order (First - Middle - Last)
- ٧- Disclosure of differences in the learning styles of the deaf students (Sensory / activist - Visual - Individual - collective) according to the styles of parental treatment (High - Medium - low) .

Study results:

The current study had the following results:

- ١- There is a significant statistical effect of gender (males - females) in the (Sensory / activist - Visual - Individual - collective) learning for the deaf, where there were statistical significant differences in the (Sensory / activist - Individual) learning for females and in the (Visual - collective) learning for males.
- ٢- There is a statistical a significant statically effect of the place of residence (rural - urban) in the (Visual - Individual - collective) learning for the deaf, where the differences were significant in the (Visual - collective) learning for

rural students and in the individual style of learning for urban students, and there were no differences in the (Sensory / activist) learning.

- ٣- There is a significant a statistical effect of family size (large - average - small) in the (Sensory / activist - Individual - collective) learning for the deaf , where the students of large and average families prefer the (collective - Sensory / activist) learning , while the students of small families prefer the (Individual) learning and sometimes (Sensory / activist) and there were no statistical differences between them in the (Visual) learning.
- ٤- There is a significant a statistical effect of the birth order of the student (First - Middle - Last) in the (Individual - collective) learning for the deaf , and there is no significant effect statistical of the birth order of the student in the (Sensory / activist - Visual) learning to the deaf, where the students in the first birthday order prefer the (Individual) learning while the students in the middle and last birthday order prefer the (collective) learning.
- ٥- There is a significant a statistical effect of some of the means of parental treatment in the two files (A) father, (B) mother in some of the styles of learning for the deaf, and most of these impacts came to the methods of parental treatment (distinction - control and dominance - swing - over-protection - normal treatment means) , and there is no a significant statistical effect of the means of parental treatment (swing - over-protection) in the (Sensory / activist - Visual - Individual - collective) learning for the deaf (hearing disabilities).

إدراك الحرمان الأسري

وعلاقته ببعض المتغيرات المعرفية واللامعرفية لدى الأطفال

Perception of family- deprivation and its Relationship with some of Cognitive and non Cognitive Variables For Children

summary

The present importance of the study lies in the following points :-

(١) Theoretical Importance :-

- (a) This study concerns with in fancy – stage as it is considered one of the most important stages in man's live, Through it , his features are defined; in personality, his physical – characteristics; mentally; emotionally, and socially. His self develops. This happens in his in herited abilities and environment – possibilities, in which he lives, and the range of:- Material; spiritual, educational and psych – care in the zone of family and society .
- (b) Non existence of Arabic studies – in the limits of the researcher - know ledge- and scarcity of foreign – studies which handled family – Deprivation for children and relying open an independent criterion in selecting the sample apart from a child's existence in a family or without.
- (c) The present study discusses children realizing family Deprivation in their natural contexts , as several studies dealt with this sort ; out of their family – zone and who are deposited social – institutions and children villages .

(٢) Applicable Importance:-

- (a) Presenting a group of educational and psychological recommendations which benefit the specialists and responsible – people about taking care of children who perception family – deprivation .
- (b) It is possible to benefit from the present study – results ; preparing and designing Directing – Guiding programs ; for parents to provide them with the best means of sound – care styles ; for children who percept family – deprivation , and have them know how to deal with those children .That is, to relive them of the size of painful – traces resulting from this deprivation.

sample of The study :

"Study sample" is composed of : (٤٦٨) pupil and she – pupil of the two grades the fifth and the sixth primary. (٢٢٦) males; and (٢٤٢) females. out of them (٨٣) eighty – three of high family – deprivation concept. While (٧٦) pupils are of low – degree. Their ages range between (١١-١٢) years. Those children have been selected from several governmental primary schools in Dessouk educational I dare (zone), Kafr El-Sheikh – governorate . This has been in the scholastic year ٢٠٠٧ / ٢٠٠٨.

Results of The study : -

- (١) There is correlations, statistically ; indicative; between perception "family deprivation" (distances – Total Mark) and each of: self concept - Level of Aspiration - Locus of control - Social competance, and Schoolastic achievement. of first – ring pupils of basic – education.
- (٢) There are dicature differences , statistically in between these and those of high and low perception of family – Deprivation (distances – total Mark) of first – ring pupils of basic education in the variation of ; self concept - Level of Aspiration - Locus of control - Social competance , and Schoolastic achievement .
- (٣) There are no indicative – statistically , differences , between females and moles of first – ring pupils of basic education in perception family deprivation.
- (٤) There are no indicative – statistically ; differences ; between males and females of high or low perception of family deprivation in the first ring of basic education, in the variations of : self concept - Level of Aspiration - Locus of control - Social competance , and Schoolastic achievement .

قسم المناهج وطرق التدريس

فعالية برنامج باستخدام الوسائط الفائقة في تنمية مهارات استخدام شبكة الإنترنت في مادة الحاسب الآلي لدى طلاب المرحلة الثانوية

The Effectiveness of Using a Hypermedia Program on Developing Skills of Using the Internet of Secondary School Students

By

Mohamed Zahran Moustafa Zayed

Abstract

Educational Decisions Makers and responsables seek to use technology at schools by using the new methods of technology and informational techniques in education.

Therefore, this research focuses on treating one of the modern technological problems that is "The inability of the second year students at secondary schools to master the internet effectively". This requires devising a technique by using Hyper Media to develop the skills(with its two sides knowledgeable and performance) of the second year students at secondary schools necessary for using the internet in the computer as a subject.

Problem of the study:

- The first main question of the study: "What is the effectiveness of a hypermedia program on developing the cognitive domain of navigating the internet skills of the computer subject of the second year secondary stage students?"

Results of the study:

First:Results of the study related to the effectiveness of the hypermedia program on developing the cognitive domain of navigating the internet as follows:

١. There is a significant difference between the mean scores of the first group students (the experimental group), and the second group students, (the control group students) in the achievement test scores, in the knowledge level at the (٠.٠٥) level, for the sake of the experimental group students.
٢. There is a significant difference between the mean scores of the first group students (the experimental group), and the second group students, (the control group students) in the achievement test scores, in the comprehension level at the (٠.٠٥) level, for the sake of the experimental group students.
٣. There is a significant difference between the mean scores of the first group students (the experimental group), and the second group students, (the control group students) in the achievement test scores, in the application level at the (٠.٠٥) level, for the sake of the experimental group students.

Second:

٤. Results of the study related to the effectiveness of the hypermedia program on developing the practical performance in the post administration of the skills of navigating the internet as follows:
٥. There is a significant difference between the mean scores of the first group students (the experimental group), and the second group students, (the control group students) in the administration of the observation card of the practical performance of navigating the internet at the (0.05) level, for the sake of the experimental group students.

Third:

٦. Results of the study related to the correlation between the cognitive domain and the psychomotor domain of the skills of navigating the internet indicated that, there is a significant positive correlation between the cognitive domain and the psychomotor domain of the whole sample students.

**تأثير إستراتيجية مسرحية المناهج على تنمية القيم البيئية والتحصيل
في الدراسات الاجتماعية لدى تلاميذ الصف الخامس من التعليم
الأساسي**

The Effect of strategy of Dramatizing Curriculum on Development of the
Environmental Values and Achievement in Social Studies Subject to
the fifth graders of Basic Education

by

Khalil Abd Elghaffar Abd Elhay Elmseery

Abstract

This current research attempted to knowledge the effect of a strategy of theatrical the curriculum on development of the environmental values and learning the Social Studies Subject to the fifth graders o f basic education.

It may be useful to direct the sight of whom teaching social studies subject for the importance of strategy of theatrical the curriculums in teaching.

It may be useful to provide a test of learning the social studies to measure the ability of pupils on levels: remembering, understanding and application.

It may be useful to provide a measure of environmental values will help teachers in measuring the level of environmental values to their students in primary stage through the Social Studies Subject.

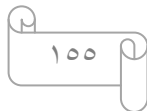
It may be helpful to provide teacher's guide for teachers of Social Studies Subject in primary stage for its units (agricultural-environment-industrial environment) by using strategy of theatrical the curriculum.

In terms of local field :

- A- The exploratory study was conducted on simple of (٣٠) pupils of the fifth graders from Elsayedh Khadija Primary School.
- B- The experimental study was conducted on simple of (٨٠) pupils of the fifth graders from Elsayedh Khadija Primary School.
- In terms of temporal field: The study was conducted in the first term of the school year ٢٠٠٨/٢٠٠٩.

Results of the study:

- ١- There is a difference function statistically at the level of (٠.٠٥) between the middle levels of the experimental group and control group in the following application of the measurement of the environmental values (acceptance - preference - commitment - total degree) in the social studies project for the interest of the experimental group.



- ٢- There is a difference function statistically at the level of (0.05) between the middle levels of the experimental group and control group in the following application of the learning test in the social studies subject on levels (remembering-understanding-application-total grade). for the interest of the experimental group.
- ٣ - There is no function relationship between environmental values and learning in the social studies subject to the primary fifth class pupils.

**تأثير إستراتيجية مقترحة لتدريس الهندسة في تنمية
مهارات التفكير العليا
لدى تلاميذ الصف الثاني الإعدادي**

The Effect Of Supposed Strategy to Teaching Geometry In Developing High Order
Thinking Skills to Students of Second Preparatory

By

Essam Mohamed Ahmed El-Ghazaly

Abstract

Kafre El-shikh university – faculty of education – curriculum and mythology
department – master the year ٢٠٠٩

This study aims at developing the High order thinking skills of the second Basic prep–stage student. spaces unit was represented to the students using suggested strategy of the experimental group students, then the High order thinking skills test was administered to both, the experimental group students and the control group students après and post administration the qualitative and quantitative analysis for the data collected from the administration recommendations suggested the importance of developing High order thinking skills and not to be limited to the lower skills, as well as making the best use of the teacher's guide and developing High order thinking skills.

Key words : strategy , developing High order thinking skills

**فعالية برنامج بالوسائط المتعددة فى التحصيل وتنمية مهارات
التصميم الإلكتروني لدى طلاب شعبة تكنولوجيا التعليم فى ضوء
معايير الجودة الشاملة**

The Effectiveness of Multimedia program on Achievement and development
Electronic Design of Instructional Technology Students
for Accuracy Standards

by

Gehan Saad Mohamed El-Dabosy

summary

We used recently on the terms open learning, distance education, Internet Education, the computer-based learning, education through networks and e-learning.

The overlap of those terms, which requires defining the best term they use to describe the type of learning that deals with the employment of technological innovations in it by specialists and educators interested in educational technology and e-learning .It was necessary to educators in particular search for the best ways to provide an interactive learning environment to attract the attention of students to these techniques, modern learning, particularly distance learning via the Internet, the Virtual University, virtual schools, virtual classrooms, electronic environments and e-learning.

All these methods of distance learning emerged as a result the emergence and rapid spread of internet use.

And now we must keep pace with the age of information explosion. Hence, the orientations of educational focus on the active role of the learner and teacher alike in both teaching and learning.

Perhaps the most important and prominent trends that concern for the development the learner's ability to exercise self-learning skills in order to access to knowledge construction and development and to make sure to provide the learners a variety of formats and new learning and thinking to cope with the rapid development.

Educators headed to the introduction of changes on both the curriculum and methods of learning and a gradual transition to the practice of e-learning courses and study e-learning as a positive and active participation for the integration of the educational process through technology methods of education prevailing. Then it appeared almost the most important step to enter this battle was the transformation of the decisions to the decisions of electronic paper and how to design educational systems into account the report of the test the best way to get to the changes required to achieve the desired information and content of the study skills of students.

And then came the next step which is the instructional design (electronic) and has three axes: it is characterized by the innovation and competition in order to produce sophisticated work force performance and the achievement of quality standards when appointed to the labor market by helping customers in the labor market by resorting to education, to contribute to the specification of the graduates and make use of them after graduation to work to improve the performance of companies and institutions to society and development partners as educational institutions in the face of challenges educational.

Hence the need to do some research of interest to study the effectiveness of programs of multi-media technology and its impact on the development of academic achievement, knowledge and skills among students in the Faculty of Education, particularly Department of Education Technology.

تطوير منهج الدراسات الاجتماعية بالصف السادس الأساسي في ضوء بعض قيم الانتماء الوطني

Development sixth primary Grade Social study Curriculum in the light of some
National Belonging Values

By

Aida Elsayed Ali Ahmed Neweir

Abstract

This research aimed to " Development sixth primary Grade Social study Curriculum in the light of some National Belonging Values using Development Curriculum. The research sample selected was from first year preparatory school students and divided into two groups: experimental group and control group. The experimental group studied the Development Curricula, where as a traditional Curricula was used with the control group. The Research instruments were atest of Social Studies achievement, and a scale of National Belongings values.

Results indicate: there levels of achievement of Social Studies (remember & under ground & application) five values of National Belongings values.

Statistical analysis indicates significant differences between the experimental and control groups on achievement of Social Studies, and scale national belongings values and positive correlation between:

- Atest of achievement in Social studies.
- Amassing National Belongings.

Research Description:

The research consisted of five chapters including Arabic and English summary, (١١) Appendices, (٢٩) Table, (٢٩) Figures.

Key Words: Development Curriculum. Social studies. Values. National belonging values.

**فاعلية استخدام المدخل القصصي على تنمية مهارات التعبير الشفهي
في اللغة الفرنسية لدى تلاميذ المرحلة الإعدادية**

Efficacité de l'approche narrative sur le développement des compétences de
l'expression orale en français chez les élèves
du cycle préparatoire.

By

Amani Ahmed Mohamed El Fawal

Résumé

Le français, comme toute autre langue possède quatre compétences langagières :

a. écouter b. parler. c. lire. d. écrire.

Parmi les quatre compétences savoir s'exprimer à l'oral est une aptitude primordiale. On constate cependant que la production orale n'est pas toujours privilégiée en classe de langue étrangère. C'est ainsi que nous nous intéressons, à travers cette recherche à la compétence de l'expression orale.

Dans les linge suivantes, on va présenter un résumé de la recherche actuelle. On va suivi les procédures suivantes représentées en cinq chapitres.

Le première chapitre

Dans le première chapitre on va présenter sa problématique, ses hypothèses ses limites, ses étapes, ses outils et ses démarches.

La deuxième chapitre

Ce chapitre est consacre à réviser les études antérieures qui sont introduites dans le cadre de cette étude .La chercheuse repartit ces études en deux axes à savoir

- I. Etudes portent sur le développement des compétences de l'expression orale.**
- II. Etudes portant sur l'approche narrative.**
- III. Etudes portant sur l'approche narrative et les compétences de l'expression orale.**

La troisième chapitre

Ce chapitre avait pour but de consulter les études théoriques concernant :

A - L'expression orale.

B - L'approche narrative.

La quatrième chapitre:

Ce chapitre va présenter les procédures qu'on a suivies afin de préparer les instruments de la recherche. Afin d'évaluer l'efficacité de l'utilisation de l'approche narrative sur le développement de quelques compétences de l'expression orale.

La cinquante chapitre

Dans ce chapitre, on aborde les résultats de la recherche où une analyse statique des résultats a été présentée avec leur interprétation qui montre que les hypothèses de notre recherche ont été réalisées et que le programme proposé a développé la compétence de l'expression orale chez les élèves de deuxième année au cycle préparatoire et des recommandations et des suggestions concernant l'enseignement des compétences de l'expression orale en langue français.

La recherche est terminée par une Bibliographie alphabétique des références et les annexes qui pressentent les instruments de la recherche "le questionnaire des compétences de l'expression orale, le questionnaire des types des contes, le test de l'expression orale et le programme proposé".

فعالية استخدام استراتيجية حل المشكلات علي تنمية مهارات الكتابة الإبداعية في اللغة الفرنسية لدى تلاميذ المرحلة الإعدادية

Efficacité de l'utilisation de la stratégie de résolution de problèmes sur le
développement de quelques compétences de l'écriture créative en français chez les
élèves du cycle préparatoire

By

Racha Ali Saad Abu Halawa

Résumé

Vu l'importance de l'écriture créative et son rôle dans l'apprentissage de la langue française, la recherche actuelle s'intéresse au développement de ses compétences. La stratégie de résolution de problèmes est le thème central des activités rédactionnelles pour ce développement.

Le problème de la recherche réside à la faiblesse des compétences de l'écriture créative en français chez les élèves de la deuxième année préparatoire. Par conséquent notre étude s'agit à répondre à la question principale suivante :

"Quelle est l'efficacité de l'utilisation de la stratégie de résolution de problèmes sur le développement de quelques compétences de l'écriture créative en français chez les élèves de la deuxième année préparatoire ?"

Le but principal de cette recherche est d'expérimenter l'efficacité de l'utilisation de la stratégie de résolution de problèmes sur le développement de quelques compétences de l'écriture créative en français chez les élèves de la deuxième année au cycle préparatoire.

L'analyse des résultats montre que les moyennes des notes des membres de l'échantillon au post- test dépassent celles du pré -test.

Puisque les différences statistiques dont on a parlé ci - avant sont en faveur du groupe expérimental, ces résultats obtenus dans cette étude prouvent l'efficacité de l'enseignement par la stratégie de résolution de problèmes employé avec le groupe expérimental en ce qui concerne le développement des compétences de l'écriture créative.

**تأثير استخدام تدريب مقترح باستراتيجية ما وراء المعرفة علي تحسين
تحصيل
قواعد اللغة الإنجليزية لدي طلاب الهندسة**

The Effect of Using a Suggested Metacognitive Strategy Training on improving
Grammar Achievement of EFL Engineering Students

By

Mazen Fawzy Badawy

Abstract

This study investigated the effect of a suggested metacognitive strategy training on improving grammar achievement of engineering students. The subjects of the study were ٦٦ preparatory year engineering students who were supposed to have studied English for ٨-١٠ years, They were divided into two groups, an experimental (n=٣١) and a control (n=٣٥). Both groups studied some grammatical structures included in the syllabus assigned for a technical English course. Only the experimental group was trained by the selected metacognitive strategies (thinking aloud, metacognitive scaffolding and self-questioning) in combination with the cognitive ones (inductive and deductive), while the control group studied grammar through the cognitive grammar teaching strategies. The *t*-test for dependent samples was used to compare pre-post scores of the same sample to measure the improvement. And the *t*-test for independent samples was used to compare the two groups. The aim was to measure the differences on the overall grammar achievement progress. Results obtained showed significant differences between the two groups on the grammar achievement test in favor of the experimental one. Besides, the metacognitive strategy questionnaire revealed better metacognitive strategy use as for the experimental group. The study recommended using a combination of cognitive and metacognitive strategy for EFL pedagogical practices in the Egyptian context.

قسم التربية المقارنة
دراسة مقارنة لنظام تدريب المعلمين في مصر والولايات المتحدة الأمريكية
في ضوء تكنولوجيا المعلومات

Comparative Study For Teacher Training in Egypt and United State of America in the
Light of Information Technology

By

Fatma Abd El-Rahman Abd El-Hady Shereif

Summary

The information technology considers a suitable product of the close union and integration between each of computer and communication technology. It became has a clear effect in the field of teacher training to improvement the quality of learning and education process and reduction the time and costs of training . That because the teachpr is the mainstay and cornerstone in the educational process. Therefore, this study come to identification the system of teachers training in light of information technology and its programs, projects, methods and styles in each of Egypt and USA., and how we can benefit by the USA experiences in teacher education using information technology in light of abilities and conditions of Egyptian Society.

Research problem:

The most weakness highlighted in teacher training in Egypt is the emphasis on the theoretical sides shortage to flexibility and to components of the professional growth and it does not learning to modern training entrances and less of the developed methods for training.

There are many new studies showed that there are defect in training system, beginning with the thought which governed it, to the practices fields as following .The research came to a number of results including:

- ١- Information technology plays an important and basic in the field of teacher education through its development means and various methods.
- ٢- USA give much interesting for using means and methods of information technology in all fields.
- ٣- USA provided programs, projects, courses of training to train teachers using information technology. Then, the implementation of these programs, projects and training courses had applied in practice.
- ٤- Making a specific strategic plans for using information technology for teacher education in USA, these plans had applied in practice.

- ٥- USA uses means and methods of information technology in evaluation and follow-up the teacher training process.
- ٦- ARE had interested for information technology and used it in many fields.
- ٧- ARE became in needing to centers and specific institutions for teacher education using information technology.
- ٨- ARE is still used a simple technological means, traditional and applied a few of advanced technological means in the field of teacher training.
- ٩- ARE suffering from the absence of a clear specific strategic plan for teacher education using information technology.
- ١٠- ARE suffering from lack of implementation of many projects and programs which is designed to train teachers by using information technology.

التخطيط لمرحلة رياض الأطفال بمحافظة كفرالشيخ (دراسة حالة)

Planning for Kindergartens Stage in
Kafr Elsheikh Governorate
(Case study)

By
Aliaa Aly Mohamed Elgendy

Summary

Stage of kindergartens is considered one of the most important and hardness in educational stages. Where it is a necessary and educational stage to lead to the educational process line, it helps children to ensure the comprehensive development styles for them in all fields: physically, mentally and emotionally, and satisfaction their needs which are agreeing with the special qualities of growth for this stage.

Because of the importance of kindergartens stage as a step for preparing to the primary school, it is necessary to desicgn planning for this stage to become a part of the general educational system, for our faith in democracy which depends on carrying out the equality, justice and ensuring the equivalent chances between members of society to join to the educational foundations, that called to necessity for constructing public and private schools which have kindergartens classes.

The educational planning is considered an activity which is interested in future and uses the methods of prediction and projection and make the diagnosis of the educational and teaching conditions and evaluation the present educational system. The educational planning is considered away to look to the present and future, it is the conscious process that makes agreement between the available sources and society needs of learning and training labor force which achieve the complete development according to the selected policy, so that, it focused on diagnosing the reality and making use to recognize on the potential ways (directions) in future, thus, returning to the present time with its fields is the beginning point to predict what can be done in the future.

**تقويم أداء مديري مدارس التربية السمعية فى مصر بمرحلة
التعليم الأساسى وفقاً لمعايير الكفايات المهنية
دراسة ميدانية**

Evaluation of Hearing Schools Principals in Egypt According to the Norms of
Professional Competencies

By

Metwali Ebrahim Metwali Fayoud

summary

School management is considered of a great importance to the audio handicapped student, as well as the teacher and those who work at the schools of audio education. It is also important for parents. The good management is a merit in the modern schools than the traditional ones. It is one of the remarkable riches in every modern school.

The efficiency of the school management at primary schools depends on the effectiveness of its managers in doing many administrative processes as planning, implementing and following up each school activity such as the education, al Social, and moral sides.

The school ability to develop and renew depends mainly on those who manage it. That's because the school effectiveness can be achieved only if the school has an effective management.

So, the process of the manager's evaluation is necessary to analyze his skills qualities and modes of behaviour. Also the evaluation process includes estimating his performance and how far it achieves the required aims. Also how to make use of the available resources this is to identify the weak and strong points of the manager and strengthen the strong points and treating the weak ones. This requires realizing the aims of evolution and comparing the result with these criteria and showing how far these aims are achieved.

قسم إعداد المعلم الأكاديمي

تفاعلات مع بعض مشتقات ٥-أريليدين-هيدانتينون وثيوهيدانتينون

Reactions with some ٥-Arylidene Hydantoin
and Thiohydantoin Derivatives

by

Mohamed Ibrahim Abd El-Samed Sobh

Abstract

The present work deals with the preparation and reactions of ٥-(٤-benzyloxy-٣-methoxy) benzylidene hydantoin and ٢-thiohydantoin derivatives and/or ٥-anthracenylidene hydantoin and ٢-thiohydantoin derivatives, with different substrates at different reaction conditions. The structures of all of the synthesized compounds were confirmed by their spectral and analytical data; IR, ¹H-NMR and ¹³C-NMR spectra which all agreed with the assigned structures.

the synthesis of some arylidene derivatives of hydantoins and thiohydantoins was investigated via direct condensation of hydantoin and thiohydantoin derivatives with some aldehydes.

It is aiming also to examine several interesting famous reactions such as alkylation with several alkylating reagents such as (methyl iodide, phenacyl bromide, ethyl bromoacetate, allyl bromide and methallyl bromide) and Mannich reaction.

Moreover, it is aimed also to investigate the synthesis of some glycocyamidine derivatives by the reaction of the synthesized thiohydantoin derivatives with secondary amines such as morpholine and piperidine.

The resulting new heterocyclic compounds were proved as much as possible by several analytical techniques such as elemental analysis, IR, ¹H-NMR and ¹³C-NMR spectroscopy etc.

Accordingly, the present investigation describes the synthesis of some new imidazolidine and imidazoline, derivatives which are expected to exhibit biological activities.

الدرس الدلالي في تفسير النسفي ٧٠١هـ أو ٧١٠

The Semantic Lesson in interpreting the Nasqi's ٧٠١ or ٧١٠ after Emigration

By

Safaa Mohamed Abdelatif Abo Zour

Abstract

Search has taken eight chapters in addition to the preface that a researcher spoke in it about the definition of Imam Nasafi and his book and publicize the knowledge of significance.

She spoke in the first chapter on the interpretation with it's methods and types, In the second chapter on the derivation and rooting, in the third Chapter on the Semantic fields, in chapter four on the Synonymy, in Chapter five of the common verbal, in the sixth chapter on opposites, in Chapter seven of the Commons and particular of language, and in Chapter eight of the absolute and unrestricted.

**آراء أبي حيان النحوية في العشر الأخير من القرآن الكريم في كتابه
"البحر المحيط" (جمعاً ودراسة) - لغة عربية**

The Grammmantic Views of Aby Hayan in
The Last Tenth of holy Qurran in his book
"Albaher Almohet" collected and studied)

By
Mohammed Refat Abd El-fatah El-mogy

Abstract

Thanks God the Lord of the whole, and with him we are supported praying and peace be Upon him (The most honoured prophet. Our master Mohammed and his family, companions the best who said, the language of Arabic and inspired him the wisdom and good speech.

Then.....

Among the best studies are which conncting holy Qu'rran its science and teaching The science of Arabic which contains Grammar and conjunctions and others which are considered the keys of "the fekeh religion and our old scientists declared that" thaalaby said "who loves lallah loves his prophet peace be upon him and who loves our arab prophet loves the Arabs and who loves the Arabs loves Arabic takes care of it and becomes interested in it and who allah guides to islam and be keen on faith, he thanks Mohammed peace be upon him is the best prophet. The Arabs arer the best nations and the arabic language is the best language and torgues. Arabic language is the key of science^(١) and the language is the key' of science' ~ and the ways to be fakeh in religion and the cause of recovering our living earners and returning (the grave).

From thus, the grammar science becomes aservant of the holy Qu'rran and a means of knowledge, besides the all sciences the holy Qu'rran controls these sciences and affects then greatly. The holy Qu'rran sometimes proves it and doesn't sometimes proves it the Qu'rran in its script (text) differ from the other texts. It may be different from a certain rule but according to the truest sayings a rule may different from the Qu'rran. It is not an error in the holy. Qu'rran. But a fault in the language of humans and for their weak minds in front of this miracle " sa)' if the humans and Gens Gathered to Get such This Qu'rran , They Wont if Supporters To each others^(٢)

So from this Concept we choose this research, I have are urgent wish to study the grammar in the hiddens of" the holy Qu'rran Allah has gifted me this study in the explanation of ". holy Qu'rran is the" AlBahrAlmohit ".

دراسة التركيب البلوري وخواص النقل لبعض المواد المغناطيسية كمية غير عضوية

Study of Crystal Structures and Transport Properties of some Magnetic Materials

By

Eman Rashad Mohammad Hassan

Abstract

The aim of the present work is to study the crystal structures and transport properties of some magnetic materials (mixed ferrites) of different compositions $Zn_{1-x}Li_{0.5x}Fe_{2+0.5x}O_4$ where $X = 0.25, 0.5, 0.75$ and 1.0 . The samples were prepared using the ceramic method. The prepared samples were identified by x-ray diffraction method and the lattice constant was calculated. Some physical properties such as experimental density, x-ray density and porosity are calculated. Mössbauer spectra were obtained for three samples with $X = 0.25, 0.75$ and 1.0 . DC electric conductivity and thermoelectric power were determined at different temperatures for all samples. It was found that :

- ١- All compositions were found to have cubic spinel crystal structure.
- ٢- The experimental density and X-ray density decrease with increas-ing Li ion content, while the porosity increases.
- ٣- The Mössbauer spectra were analyzed into two subspectra; one subspectrum is due to Fe^{2+} ions at A- site while the other is due to Fe^{2+} and Fe^{3+} ions at B-site .
- ٤- DC electrical conductivity increases with increasing temperature this indicates that all samples exhibit a semi conducting behavior.
- ٥- The appearance of transition temperature could be attributed to the transition form ordered state at relatively lower temperature to the disordered state at relatively higher temperature.
- ٦- The activation energies at the disordered state are higher than those at the ordered states.
- ٧- The thermoelectric power are negative for all prepared samples, indicating that the majority of charge carriers are electrons.

أساليب الذكاء الاصطناعي في معالجة مشاكل الامثلية الاتجاهية

Artificial Intelligent Techniques for Treating Vector Optimization Problems

By

Fahmy Zekry Fahmy

Abstract

Artificial Intelligence

This chapter introduces the multi-sides definition of Artificial Intelligence (AI). Also, studies the various branches of it, the basic principles and algorithms of each branch, explaining their advantages and disadvantages.

Multi-Objective Optimization Techniques

This chapter includes the basics, elementary foundation, and treatment classic methods of Multi-Objective Optimization Problem (MOOP), explaining advantages and disadvantages for each classic method. Also, this chapter clarifies the weaknesses common to classic methods which are used in solving these types of problems.

Evolutionary Algorithms for Solving Multi-Objective Optimization Problems

The main purpose of this chapter, why choosing Evolutionary Algorithms (EAs) for solving MOOP and presents a classification of Multi-Objective Evolutionary Algorithms (MOEAs) approaches into two main generation. In additional to study and clarify of the algorithm for each approach with its advantages and disadvantages.

The Proposed Genetic Algorithm for Solving Multi-Objective Optimization Problems

This chapter explains the proposed algorithm by using Genetic Algorithms (GAs) for solving MOOP and clarifying how each step is done. A comparative study of the pareto optimal solution between the proposed genetic algorithm and one of the classic methods for treating MOOP is reputed. This comparative study is done by using the benchmark test function and the results used to measure the performance of comparative.

A Comparative Study between Different GAs and PSO for Solving MOOP

This chapter introduces a comparison study between GAs and Particle Swarm Optimization (PSO) for MOOP. Also, it includes the general Multi-Objective Particle Swarm Optimization (MOPSO) algorithm works and classification of MOPSO approaches with describes each approach. A comparative study between the MOPSO algorithm with other MOEAs approaches and the proposed algorithm by using the benchmark test function is introduced.

سنن الإهلاك في القرآن الكريم
بحث مقدم لدرجة الماجستير في الدراسات الإسلامية واللغة العربية

“Typical ways of demolition in

The Holy Qura'an “

Islamic studies & Arabic Language Master's Degree research

By

Sarah Adel Dardeer

Abstract

It's Allah's mercy to send his messengers to guide their people to worship Allah and abandon idolatry . One of the pictures of destruction is drowning Noah,s story . Hw was the first mssenger after Adam peace be upon them . he had tried to guide his people to worship Allah for ٩٥٠ years . they laughed at and insulted him and his followers.In turn, he faced all their insults with strong will and patience.

After noah came hud peace be upon them. sent by god to guide his people but they refused to follow him . they just boasted and took pride over him . As arusult, Allah destroyed all of them . As for Salih's people, they didn't respond to his guidance or consider the past destroyed peoples and as aresult them seleves got destroyed .

Coming to shu'aib's people . they not only disbelive in god but they also committed one of the most sinful acts which was cheating people in trade (by shorting measure and weight) As aresult , they were destroyed . As for Lut's people . they committed the greatest sinof sodomy, that worth punishment in our life and the other life for its bad effects on the body and the soul .

قسم الصحة النفسية
سلوك الإقدام علي المخاطرة وعلاقته ببعض المتغيرات النفسية لدي
المراهقين
(دراسة سيكومترية كينيكية)

The Behavior Of Risk And It's Relationship With Some Psychological Variables Of
Adolescent
(Mental Hygiene Major)
By
Doaa Abo El-Magd Kamel Massoud

Abstract

The study problem can be limited by answering the following question : How the relationship between certain psychological variables (self-esteem - self-confidence - psychological independence) and risk-taking behavior in relation to the positive and negative? How the impact of gender on the behavior of taking the risk? What are the dynamics and the factors responsible for high or low scores on the behavior of risk-taking among adolescents? The prevalence rates of risk taking behavior among adolescents?.

The current study included a sample of (٢٢٧ students - ٢٠٢ female), aged (١٥-١٨ years) of students second and third grade of secondary schools (Gamal Abdel Nasser - Ahmed Zewail - good structure) Desouk Center City Kafr El-Sheikh. The sample consisted of four clinical cases of students, a terminal case of the scale, (male - female) high- risk (male - female), low-risk.

Tools include a range of tests and standards that have been used during the study and the variables of these tools is as follows: Measure of Risk Taking Behavior. (Prepared By Researcher), Self-Esteem Scale (Prepared By Hussein Abdel-Aziz El-Derini, Abdel Wahab Mohamed Kamel Mohamed Ahmed Salama, ١٩٨٥), Measure of Self-Confidence. (Prepared By Adel Abdullah Mohammed, ١٩٩٠), Measure of Independence from Parents Psychological .(Prepared By Metadata Hassan Radwan, ٢٠٠٤), Form Case Study of Adolescent. (Prepared By Amal Baza Abdul Sami, ١٩٩٩)

The study finally concluded the following results : There is a statistical correlation between the degree of D. adolescents on a scale to take on the behavior of the three dimensions of risk and measurement of self-esteem among adolescents. There is a statistical correlation between the degree of D. adolescents on a scale to take the risk on the behavior of the three dimensions of self-esteem among adolescents. There is a statistical correlation between the degree of D. adolescents on a

scale to take on the behavior of the three dimensions of risk and measure of independence and psychological among adolescents. There is no statistically significant differences between the sexes (male and female) in the risk-taking behavior among adolescents. There are the dynamics underlying factors responsible for high or low scores on the behavior of risk-taking among adolescents. There are differences between the prevalence rates of risk taking behavior among adolescents.

**إدمان الإنترنت وعلاقته باضطراب بعض القيم لدى عينة من طلاب
الجامعة**

The Addiction of The Internet and Its Relationship with Values for A Sample
of University Students

by

Ahmed Abd Allah Mohamed Sabrh

Abstract

The internet addiction is regarded a new psychological disease that started to spread so fast among the members of the international or local society. The danger of this addiction began to appear through the spread of some nervous and psychological disturbances, Some disorders in the aspects and changes of characters to the society members in general and especially the university youth.

It led to the disturbance and decline of their values. As the results of the previous studies showed that this new type of addiction inn behaviour isn't less in danger than the known traditional addict.

The addiction by the internet has become an actual matter that can't be ignored by the scientists or researchers to face the social and psychological affects on the society members, to impose supervision or observation to some of those high - tech sites, and to spread the sites aim to achieve the right media in order to catch up with our values and healthy character or psychological health.

في علاقة بعض المتغيرات النفسية باضطرابات الأكل لدى عينة من الصم مرحلة المراهقة

The Relation of Some Psychological Variables to Eating Disorders for a Sample of
Deaf Adolescents

By

Seif el-Nasr Abd-El Hai Moh. El-Emam

Summary

The loss of hearing has bad effects on their different sides of growth, especially the social, Many studies and researches pointed out that deaf have low level of the that is because some psychological variables which are necessary for their reaction with others, that is because they lake the capability of self guidance and rely more on the others around them in meeting their personal needs they also feel shortage and self insufficient Besides thy are characterized of being negative in the different social situations and they suffer the difficulty of making social relations with their normal peers, they are also characterized of being solitary and not participating with the other in playing and the other social activities, this was confirmed by the studies made by Zienab Ismael (١٩٦٨), Mostafa Fahamy (١٩٧٥), Walish (١٩٧٩), Ioda Kinawy (١٩٨٢), Alis (١٩٨٦), Fenistin (١٩٨٧), Abd Elaziz Elshakhs (١٩٩٢), EL Sayed abd El latif (١٩٩٤) Ali Abd El naby (١٩٩٦), and Mohammed El Noby (٢٠٠٠).

أثر استخدام الإنترنت على بعض الخصائص الشخصية لدى عينة من طلاب الجامعة

The effect of The Internet use on some of the personal characters to a sample of
university students

Abstract

The present study aims to:

- Revealing about the nature of the relationship of net usage on psychological loneliness feeling for a sample of university students.
- Revealing about the nature of the relationship of net usage on depression feeling for a sample of university students.
- Revealing the relationship of the use of the internet on shyness for a sample of university students.
- Revealing of the relationship of the level of use of the Internet and type (male - female) and the nature of dealing with the Internet among a sample of university students.
- the level of disclosure on the impact of the use of the Internet and type (male - female) on the characteristics of personal (psychological loneliness - depression - shyness) among a sample of university students.

Results of the study :

- There are some links between the function of dealing with the Internet (amusement - use the positive - the negative use - the degree college) and some personal characteristics (depression - shyness - the psychological loneliness) of students at the university.
- The impact of the presence of type D in each of the (amusement and use the negative and the degree to college) to a questionnaire on the Internet to achieve the values of " F " to the extent of statistical significance.
- The lack of impact of the type D component in the positive use of a questionnaire on the Internet for non-achievement of the values of " F " to the extent that statistically significant statement. D.
- The presence of the impact of the level of use in all dimensions of a questionnaire on the Internet (amusement - positive use - Use negative) and the degree to the overall achievement of the values of " F " to the extent accepted statistically significant. And the absence of the impact of the bilateral interaction of the D type (male - female) and the level of use of the Internet (no use - the simple user - the user to - addicted), for failure to achieve the values of " F " to the extent accepted statistically significant.

- The impact of the presence of type D in shyness for the achievement of the value of " F" to the extent that statistical significance accepted , and the absence of the influence of the D type in the depression and the psychological value of the non-attainment " F " to the extent acceptable statistical significance, and the lack of effect of D to type in personal variables (depression - loneliness - shyness), for failure to achieve the value of " F " to the extent that statistical significance accepted , and the absence of the impact of the bilateral interaction of the D (type, use) non-attainment of the value of "F" to the extent that statistical significance accepted .

**أثر جماعة الأقران في تنمية الكفاءة الاجتماعية
لدى فئة المتخلفين عقلياً "القابلين للتعليم"**

The effect of peer group in the development
of social competence for a category of mentally retarded "educable"
by

Soliman Abd El Aziz Soliman Alghanam

summary

God seemed to bless the creation of the universe, the Almighty and His Majesty He swear to develop the mind in creation is the ultimate advantage of the rights of other creatures, to think and learn and discuss and reflect on where he says in His Holy Book: (in the creation of the heavens and the earth and the alternation of night and day are signs for men of understanding * who remember God and inclusive Qauda and Jnobhm and speculated on the creation of the heavens and the earth that God created this void successful punishment of the Fire), * While we in the era of knowledge explosion and technological reason, however, remains a hidden secret of the secrets of the Creator of the universe, and as interpreted by the medical scientists gap have emerged which need to be gaps in the interpretation and analysis. With this blessing, for the blind - they are not "mentally retarded"; - This category is very well as help them to achieve the greatest possible consensus on the level of family, personal and social We will be able to engage their community, which may well return to their families and thereby benefit society as a whole, because these children have lower cognitive abilities significantly, which is the basis for the problems a result of mental retardation, so there is a continuing serious attempts by psychologists and education and approaches to try to ease the severity of these problems, at least, that there was no hope of treatment altogether.

**فعالية برنامج إرشادي متعدد المداخل لتنمية الإرادة
لدى عينة من طلاب الجامعة المكتئبين**

The effectiveness of a Multi-Methods program to develop volition in a sample of
depressed undergraduate

by

Marwa Nashaat Moawad Hassan

abstract

The study aims to show the effectiveness of the multi – entrance guidance programme for the volition development of a depressed university students. Also, to show the effectiveness of the multi – entrance guidance programme to relieve the depression symptoms to depressed university students. So, for achieving this aim, the sample of the study consisted of a group of the university students with the increase rank on the depression measurement and the decrease rank on the volition strength measurement. They are (٢٠) students of the third grade. The divided into two groups. Ten (١٠) were exposed to guidance and ten (١٠) weren't exposed to the guidance programme. The comparison has been completed among them.

The study led to the following results:

- ١- There are significant statistical differences in the variable of volition and depression among the mean ranks of the experimental group students in the pre and post measurement.
- ٢- There is no a significant statistical difference in both volition and depression among the mean ranks of the control group students in both the pre and post measurements.
- ٣- There is a significant statistical ranks of both the experimental and the control groups in the post measurement in the variable of volition and depression for the experimental group students.
- ٤- There is no a significant difference in both the volition and depression among the mean ranks of the experimental, group students in both the post and following up measurements.
- ٥- There are some dynamic factors beyond the rank increase on the variable of volition and the decrease of depression feeling.

علاقة بعض اضطرابات النطق والكلام ببعض المتغيرات النفسية لدى عينة من الأطفال في مرحلة الطفولة المتأخرة

The Disorders of Speech and Relationship of some Pronunciation of some
Psychological variables among a sample of Children in late Childhood
by

Dina Zaki BassiounI Abd- Hamied

Abstract

This study disclosure of the nature of the relationship between speech disorders and speech and the following psychological variables (aggressive behavior - withdrawal - the concept of self). And how these variables contribute to the emergence of speech and speech disorders among children in late childhood. The study carried out the study (٨٠) boys and girls with speech disorders and speech, which ranged between the ages of (٨-١٢) years. The control group (٤٠) boys and girls are not suffering from a disorder of speech and to speak. The study used Measure of speech disorder by observing the child. (Prepared By Researcher) , A questionnaire of attitudes Stuttering also known to children. (Prepared By Researcher), Measure of social withdrawal. (Prepared By Researcher), Measure of Aggressive Behavior, (Prepared By Amal Baza Abdul Sami ,٢٠٠٢), Self-Concept Scale. (Prepared By Researcher). The study used Descriptive Statistics: Average - Standard Deviation, T. test, Correlation Coefficient. The study finally concluded There are a statistically significant difference between the average degree of the group of children and ordinary speech disorder on a scale of social withdrawal and self-concept and verbal and physical aggression and the absence of differences in indirect aggression, There are a statistically significant difference between the average degree of the group of children and ordinary speech disorder to speak on a scale of social withdrawal and self-concept and verbal and physical aggression and the absence of differences in indirect aggression, The absence of any fundamental differences with statistical significance between the average degree of the group of children speech disorder and talk on a scale of social withdrawal and self-concept and verbal and physical aggression and indirect aggression.

علاقة بعض المتغيرات النفسية بمهارات الحياة لدى عينة من الأحداث الجائحين

The Relation of Some Psychical Variatles With Skills of Life for Asmples of Juvenile
Delinquents

By

Samar Elsayed Hassan Mohammed

Abstract

Discovering the relationship between life skills and self-esteem, locus of control, stress for a sample of juvenile delinquents

The Limits of mankind: The individuals in the study sample consists of twenty adolescent offenders and ٢٠ of the typical teenagers between the ages of ١٣: ١٨ House of events etc, Social observation Kafr El-Sheikh, House Juvenile Mahalla al-Kubra and Social Observation Social Observation Home Balbkatosh and Al Shaheed Reyad school Althanh Benin Kafr El-Sheikh.

Results of the Study :

- ١- The existence of statistical indicative positive correlation between the D on the Richter scale self-esteem and life skills, time management, problem solving and decision-making and take responsibility for a sample of juvenile delinquents adolescents drop out of education
- ٢- The existence of statistical indicative subzero correlation between D. statistically on the Richter scale pressure and life skills, time management, problem solving, decision-making and take responsibility for the dark of a sample of juvenile delinquents adolescents drop out of education
- ٣- The existence of statistical indicative subzero correlation between the D statistically on the Richter scale pressure and life skills, time management, problem solving, decision-making and take responsibility for a sample of juvenile delinquents who drop out of education
- ٤- The presence of statistically significance differences between the average grades of ordinary and youth offenders who drop out of education of teenagers on a scale of degrees of life for anormal, value was significant at (٠.٠٠١).
- ٥- The presence of Dalalah statistically differences between the average grades of ordinary and youth offenders who drop out of education of teenagers on a scale of self-esteem and view of control and psychological pressures for anormal, value was significant at (٠.٠٠١).

التفاعل الأسرى وعلاقته بالكفاءة الاجتماعية لدى عينة من التلاميذ في مرحلة الطفولة المتأخرة

Family Interaction and its Relationship to Social Competence For a Sample of Pupils
in
Late Childhood phase
by

Rasha Gaber Abdel-Monem Mohammedbby

Summary

The persistent interaction between family members is considered a major aspect of the family, which helps - through it - the growth and integration of its individuals' personality, specially the young children, as the child acquires (his / her) attitudes from it, besides his habits and behavioural modes that help (him / her) to merge with other social networks in the society, and so, the family is not just a place where the members live or practice different kinds of activities, it's the suitable place where the child learns the major habits of his groups, besides, it aims at supporting the society with new members aware of the basis and foundations of their society, and executing its instructions, the family therefore defines the social behavioural properties for the child through defining (his / her) name, religion and rank, it's the place that provides them with safety and stability

Results of the Study :

- The existence of statistical indicative correlation between the family interaction levels (and their dimensions) and social competence levels (and their dimensions) as measured by the means used in the study (pupil self - esteem version / pupil, teacher's esteem version) with the exceptions of the social performance relation to the family interaction struggle which had not any significance for a sample of students in the late childhood phase.
- The existence of an indicative influence for the level of family (low - moderate - high), the gender (male - female) and their interactions on the social competence (and its dimensions) (social adjustment - social skills - social performance) where (F) value was significant at (٠.٠٠١).
- The non-existence of an indicative influence for the dual interaction between the level of family interaction (low - moderate - high), the gender (male - female) and their interactions on the social competence (and its dimensions) (social adjustment -

social skills - social performance) where (F) value was insignificant because of not reaching the limit of statistical significance .

- The total degree of the family interaction has a predictive potency of the social competence (and its dimensions) for fifth and sixth grade pupils of elementary education where (F) and (T) value were significant at (0.001).

ثانياً: الدكتوراه

قسم أصول التربية التعليم المفتوح بجامعة كفرالشيخ صيغة مقترحة للتمويل الجامعي

OPEN EDUCATION IN KAFRELSHEIKH UNIVERSITY:
A SUGGESTED FORM FOR THE UNIVERSITY FUNDS

By

Masoud Gaber Saad Ibrahim

Abstract

The university funding issue is considered a global issue that faces a lot of the world countries. It is always a limited issue because of the unstable global economic system and the rise of the cost of the university education, though the different levels of economic progress and developing in each of these countries. Therefore, the financial resources that are specialized for the university education from the general budget of the state are affected.

the problem of the present study may be formulated in the answer of the following main question;

"How can the open education participate in the process of funding education in Kafr elsheikh University?"

The following sub questions were derived from the previous main question:

١. What are the sources of the university funding in Egypt? What are the substantial resources to face the challenges of the shortage of funding?
٢. What is the philosophy of university open education?
٣. What are the main international and Arabic experiences in the field of the open education?
٤. What are the opinions of Kafrelsheikh university stuff members and the open education experts towards applying the open education system in Kafrelsheikh University?
٥. What is the suggested policy to apply the open education system to participate in the process of funding in Kafrelsheikh University?

الخطاب التربوي في كتابات يوسف القرضاوي دراسة نقدية

The Educational Discourse in Yousif Elqaradawy's Writings: a Critical Study

Abstract

Formulating behavior receives the concern of lots of scientists and researchers in the field of humanities. Lots of trends are found in the field, as some researchers consider the formulating behavior process a process that leads to develop the required behaviors, and suppressing the undesired behaviors. While others consider the formulating behavior a serious process, as it leads finally to control the human behavior and directing it towards the required destination that suits the philosophy and ideology of the formulator of the behavior. But finally, all those two trends of researchers agree that formulating the behavior is the result of the directed educational discourse. Thus it is considered a serious process and a vital step to care for the educational discourse nowadays, as it is considered the main cause in formulating the behavior and directing it towards its suitable destination.

It is clear that the recent educational discourse is still suffering from the inability to formulate the human behavior as it succeeds in formulating some trends that surpasses mentality and logic.

The recent educational discourse does not help construct a value taxonomy that is suitable with the predetermined educational objectives, which enable prepare citizens who are able to participate in the constructing their society, besides enjoying the social and national responsibility. This educational discourse does not help improve and develop the educated cognitive and scientific skills. It proved to be ineffective in developing the different thinking techniques such as; analysis, deduction and criticism.

We are in need to an educational discourse that helps us get over such problems, and eliminate other obstacles, besides being effective in formulating the individual and mass behavior as well. Its effect should extend to the positive effective to carry out its task in the process of constructing and renewing the Arabic and Islamic nation civilization.

قسم التربية المقارنة نظام الجامعة الافتراضية في كندا وآليات الاستفادة منه في إنشاء مراكز للتعليم الافتراضي في الجامعات المصرية

The Virtual University in Canada and Mechanisms of How to Make Use of it in The
Establishmentm of Centers for Virtual Education in Egyptian Universities

Abstract

The study aims at: Identifying the virtual university as a modern form of distance higher education, Pinpointing the fact of the applications resulted from the virtual Canadian university, Pinpointing the fact of virtual higher education in Egypt, Reaching a future prospect for constructing virtual education centers in the Egyptian universities in the light of the Canadian virtual university and a Field Study.

This study deducted the following results:

- The Canadian Virtual University is considered one of the cooperative virtual universities that contains twelve Canadian universities which integrate distance education and traditional education. It is also a university without borders that was constructed in ٢٠٠٠ to assure quality and high performance of the instructional process. It provides only one unified source of learning for the student.
- The Canadian virtual university does not grant graduation certificates, as it is considered a medium between the students and their university. It provides more than ٢٣٠٠ courses besides ٣٥٠ degrees and diplomas.
- The Canadian virtual university admits a flexible acceptance policy, as it provides open higher instruction to the Canadian people and the whole world as well that starts from the age of ١٦. It permits secondary students to register in some courses during his secondary study.

قسم الصحة النفسية
فعالية برنامج قائم على العلاج العقلاني الانفعالي وبرنامج للتدريب
على
المهارات الاجتماعية في تخفيف حدة القلق الاجتماعي
لدى عينة من الأطفال ضعاف السمع

The Effectiveness of a programme depends
on Rational-emotive therapy and a programme of Social Skills Training to decrease
social anxiety for a sample of Hard hearing Children

Abstract

Study aimed to reveal the effectiveness of the program based on rational emotional therapy to alleviate social anxiety and modify the irrational ideas in a sample of children with hearing impairments. Disclosure of the effectiveness of the training program on social skills to alleviate social anxiety and improving social skills among a sample of children with hearing impairments. And the disclosure of both the effectiveness of the program based on rational treatment program for emotional and social skills training to ease social anxiety and modify the irrational thoughts and improve social skills among a sample of children with hearing impairments. For this purpose the study sample consisted of a group of children with hearing impairments, and the number (٢٤) children in the age group of (٩-١١) years with an average age (١٠.٢٢) and a standard deviation of (١.٤٨٨), were selected from schools hope for the Deaf and Hard of Hearing County Kafr El-Shaikh, was divided into (٤) groups [group of experimental [١] "Social skills training" (n = ٦) - a test [٢] "rational and emotional treatment group" (n = ٦) - a test [٣] "Group merge treatments "(n = ٦) - control group (n = ٦)]. The study used the following tools: [intelligence test photographer - a measure of irrational ideas - a measure of social skills - a measure of social anxiety - the training program on social skills - the rational and emotional treatment program]

The results of the study for:

١. "The presence of statistically significant differences among the middle-grade levels of group training in social skills and grade levels of the control group in the telemetric study tools for group training in social skills."
٢. "The presence of statistically significant differences among the middle-grade levels of group social skills training in the tribal Alkiesin distance to study tools for measuring distance."

٣. "The presence of statistically significant differences among the middle-grade levels of the treatment group of rational and emotional and behavioral grade levels of the control group in the telemetric study tools for the treatment group of rational emotional behavior."
٤. "The presence of statistically significant differences among the middle-grade levels of the treatment group rational emotional behavioral Alkiesin tribal distance to study tools for measuring distance."
٥. "The presence of statistically significant differences among the middle-grade levels of the integration of treatments and a control group in the telemetric study tools for the integration of group treatments."
٦. "The presence of statistically significant differences among the middle-grade levels of the integration of treatments in a group Alkiesin tribal distance to study tools for measuring distance."
٧. "There is no statistically significant differences among the middle-grade levels of group training in social skills and a rational emotional behavioral therapy in the telemetric study tools."
٨. "The presence of statistically significant differences among the middle-grade levels of group training in social skills and the integration of treatments in a telemetric study tools for the integration of group treatments."
٩. "The presence of statistically significant differences among the middle-grade levels of the treatment group of rational and emotional and behavioral group treatments in the integration of telemetric study tools for the integration of group treatments."
١٠. "No significant differences STAT Definitively among the middle-grade levels of the control group in the tribal Alkiesin distance on the study tools. "

فعالية برنامج معرفي سلوكي في تخفيف حدة المعتقدات السلبية غير العقلانية

لدى عينة من مرضى الفصام

The Efficiency of a Cognitive Behavioral Program in Moderating the Acuteness of Irrational Negative Beliefs for a Sample of Schizophrenia Patients

By

Magda El-Sayed Ali Nasef

Abstract

The current study aims at: ١- Revealing the efficiency of a cognitive behavioural therapy based program and family counseling in moderating the acuteness of irrational negative beliefs for a sample of schizophrenia patients. ٢-Revealing the continuity level of the efficiency of the CBT (cognitive Behavioural Therapy) and family counseling in moderating the negative beliefs for a sample of schizophrenia patients. ٣-Revealing some underlying dynamics responsible for the lack of response cases (a), (b) for treatment in the program. It included (٥٠) schizophrenia patients from mental diseases department, Kafr El-Sheikh general hospital whose ages ranged from ٢٢ to ٣٥ years old, and were divided into two subgroups: ٢٥ patients control group & ٢٥ patients experimental group. The results yielded that: ١-The efficiency of a cognitive behavioural program in moderating the acuteness of negative irrational beliefs for a sample of schizophrenia patients.

٢-The efficiency of a cognitive behavioural in training family members on the ways to reduce the stresses on schizophrenia patient, and also training them on communication patterns that reduce the expressed temper. ٣-The continuity of the efficiency of a cognitive behavioural program in reducing (moderating) the acuteness of negative irrational beliefs for the experimental group during the follow-up period that lasted for three monthes and the continuity of the efficiency of family counseling in improving the mental state of the patients at the end of treatment and during the follow-up, in addition, the CBT reduces the withdrawal rates and results in improving the general performance.

**فاعلية برنامج قائم على السيكودراما وبرنامج معرفي سلوكي في
تخفيف حدة اضطراب الشخصية النرجسية لدى عينة من طلاب
وظالبات الجامعة**

Effectiveness of A Programme Based On Psychodrama And a Cognitive Behavioral Programme to Reduce Narcissistic Personality Disorder For A Sample of University Males and Females' Students.

Abstract

The study aim to Revealing range of the effectiveness of a Programme based on psychodrama and a cognitive behavioral Programme to moderate narcissistic personality disorder for a sample of university males and females' students, each Programme alone and their effectiveness together. Making sure of range of the continuity the of effectiveness of a Programme based on psychodrama and a cognitive behavioral Programme to moderate narcissistic personality disorder for a sample of university males and females' students, each Programme alone and their effectiveness together. Also, Revealing the psycho-dynamic factors which responsible for high or low score of narcissistic personality disorder to each case of the clinical study cases.

For these aims the study was applied upon upon ٢٠ university females and males students who suffer form narcissistic personality disorder. The sample's age is from ٢٠-٢٢ years and they are divided into four groups: First experimental group: five students who received the cognitive behavioral program. Second experimental group: five students who received a Programme based on psychodrama. Third experimental group: five students who received the tow programmes together. Control group: five students who didn't receive any of the two programmes. And use tools: (Narcissistic personality Inventory - Narcissistic personality scale -Thematic Apperception Test (T.A.T) for adults. - Study case form for students of faculty of education. - Economic-social standard form - Free clinical interviews. -A Programme based on Psychodrama -Cognitive Behavioral Programme).

The results of the present study showed: Effectiveness of the cognitive behavioral programme to moderate the intensity of narcissistic personality disorders for the experimental group in the (pre-first post-second post) measurements and also compared with the control group. Effectiveness of the psycho-dramatic programme to moderate the intensity of narcissistic personality disorders for the experimental group in the (pre-first post-second post) measurements but during compared with the post measurement for the control group , there weren't any differences. Effectiveness of the

combination of two programmes to moderate the intensity of narcissistic personality disorders for the experimental group in the (pre-first post-second post) measurements and also compared with the control group.

**فاعلية التدريب علي البرمجة اللغوية العصبية والعلاج المعرفي
السلوكي لتعديل مستوي الطموح لدي عينة من المراهقين ذوي الإعاقة
السمعية
وأثره في السلوك التكيفي**

The Effectiveness Of Training On Neuro Linguistic Programming and A program Of
Cognitive Behavior Therapy For Modification The Level Of Aspiration
In A sample Of Hearing Impairment Adolescent
and It's Effect On Adaptive Behavior

by

Samir El-Sayed Shehata Ibrahim

Abstract

This study aimed to verify the effectiveness of training on NLP, and cognitive behavioral program to modify the level of Aspiration among a sample of hearing-impaired. And the sustainability of effectiveness, and then figure out the impact of adjusting the level of Aspiration in the formation of adaptive behavior have hearing impaired, and the sustainability of this effect after a period of application.

The sample consisted of the pilot study of a sample trial ١ (training on NLP) It's number (٧) students between the ages of time between ١٥ - ١٨ years with an average age of time of (١٦.٢٩) years, and a standard deviation of (١.٩٨), and the amount of loss and audio between (٧٠-٩٠). And a sample test ٢ (CBT) It's number (٧) students between the ages of time between (١٥ - ١٨) years old with a life time of (١٥.٨٨) years, and a standard deviation of (١.١٨), and the amount of loss audio range (٧٠-٩٠) . The officer and a sample number (٧) students between the ages of time between ١٥ - ١٨ years old with a life time of (١٥.٢٧) years, and a standard deviation of (١.١٥), and the amount of hearing loss ranging between (٧٠-٩٠).

Included study tools to measure the level of Aspiration for the Hearing Impaired prepared by the researcher, the scale of Vinland to the behavior of the adaptive (ed / Edgar States ١٩٥٣, legalization / Bandar bin Nasser Al-Otaibi, ٢٠٠٥), form the case study of adolescents for Hearing Impaired prepared by the researcher, a training

program on NLP preparation the researcher, cognitive behavioral therapy program prepared by the researcher.

Study used quasi-experimental, which aims to examine the impact of variables experiment (independent variables) and are training on NLP, and the program cognitive behavioral on (dependent variable) the level of Aspiration, and aimed to determine the impact of the level of Aspiration (independent variable) on (dependent variable) adaptive behavior.

Results of the study to the effectiveness of training on NLP. And cognitive behavioral program to modify the level of Aspiration among a sample of hearing-impaired. Effectiveness and continuity after a period of application, and the effect of adjusting the level of Aspiration in the formation of adaptive behavior have hearing impaired, and the continuity of this effect after a period of application.

**تنمية الوعي بالأسلوب الإبداعي كعامل وسيط لرفع كفاءة الحل
الإبداعي للمشكلات على بعض أنماط التفكير لدى عينة من طلاب
وظالبات الجامعة
(دراسة تجريبية مقارنة)**

Developing Awareness Through Using A creative Style As A medium To Raise
Creative Problem Solving Efficiency On Some Thinking Patterns Among University
Students:

An Experimental Comparative Study

By

Ahmed Saeed Abd El – Kawy Zeidan

Abstract

The aim of the current study is development of awareness with creative style as mediator factor to raise efficiency of creative problem solving on some of types of thinking on sample of (male – female) of students of university, and experimental groups have consisted of three groups: adaptors, innovators and Bridgers, and Tools of study were : Test of level of cultural social\economical, Test of Kirton, Test of creative thinking, Test of critical thinking, Programme of creative problem solving.

The results of this study have declaired:

- (١) There were significant differences between two means of ranks of the first experimental group (adaptors) on two (pre – pro) measures of the creative thinking for pro-measure.
- (٢) There were significant differences between two means of ranks of the first experimental group (adaptors) on two (pro - follow up) measures of the creative thinking for pro-- measure
- (٣) There were significant differences between two means of ranks of the second experimental group (innovators) on two (pre - pro) measures of the critical thinking for the pro-measure.
- (٤)(٤) There were no significant differences between two means of ranks of the second experimental group (innovators) on two (pre - follow up) measures of the critical thinking.

- (٥) There were significant differences between two means of ranks of third experimental group (bridgers) on two measures (pre - pro) of the creative thinking and critical thinking for the two pro-measures.
- (٦) There were no significant differences between two means of ranks of third experimental group (bridgers) on two (pro—follow up) measure of the creative thinking and critical thinking.
- (٧) There were no significant differences between means of ranks of the first experimental group (adaptors) and means of ranks of the third experimental group on the (pre – pro –follow up)of measures of creative thinking.
- (٨) There were no significant differences between means of ranks of the second experimental group (innovators) and means of ranks of the third experimental group on the (pre – pro –follow up)of measures of critical thinking.

قسم علم النفس التربوي
فعالية برنامج إثرائي لمهارات ما وراء المعرفة في تحسين مهارات التفكير
الناقد والتفكير الابتكاري لدى التلاميذ الموهوبين بالحلقة الثانية من
التعليم الأساسي في ضوء أساليب التفكير المفضلة

The Effectiveness of Enrichment Programme
for Metacognitive Skills in Improving Skills of Critical and Creative Thinking of
Gifted Pupils

at the Second Stage of Basic Education in
Light of Favourite Thinking Styles

By

Hosny Zakria El-Sayed Mohammed El-Nagar

Abstract

Discovering the gifted underachievement Pupils in the second stage of the basic education, thinking styles favoured ,Discovering the effectiveness of an enrichment program of metacognitive skill on developing metacognitive skills (Declarative Knowledge, Procedural knowledge, conditional knowledge, awareness, planning, Cognitive Strategy, Self - Monitoring and Self – Evaluation) Discovering the effectiveness of an enrichment program of metacognitive skill on developing critical thinking skills and creative thinking skills .The present study deduced the following results:

١. The ratio of the gifted underachievement students is (٧%) of the total sample students, and the male students represent (٧.٥%) and the female students (٦.٥%) of the total study sample.
٢. The pilot study administration indicated that there are three different thinking styles favored by the students from all the thirteen styles represented in Sternberg's theory of thinking styles of the gifted underachievement students which are: legislative thinking style, judging thinking style and liberal thinking style.
٣. There are significant differences between the mean scores of the experimental group students in the metacognitive skills (Declarative Knowledge, Procedural knowledge, conditional knowledge, awareness, planning, Cognitive Strategy, Self -

Monitoring and Self – Evaluation, the total scores) of the three administrations of the test (pre – post and follow up), for the sake of the post and follow up administration.

٤. There are significant differences between the mean scores of the experimental group students in the critical thinking skills (comprehension, assumptions knowledge, interpretation, analysis, deduction, proof evaluation, the total score) and creative thinking skills (fluency, flexibility, originality, improvement and developing, verbal creativity, total score) and academic achievement in the three administrations (pre – post- and follow up) for the sake of the post and follow up administration.
٥. There are no significant differences between the mean scores of the control group students in the metacognitive skills (Declarative Knowledge, Procedural knowledge, conditional knowledge, awareness, planning, Cognitive Strategy, Self - Monitoring and Self – Evaluation, the total scores of the three administrations of the test (pre – post and follow up).
٦. There are no significant differences between the mean scores of the control group students in the critical thinking skills (comprehension, assumptions knowledge, interpretation, analysis, deduction, proof evaluation, the total score) and creative thinking skills (fluency, flexibility, originality, improvement and developing, verbal creativity, total score) and academic achievement in the three administrations (pre – post- and follow up) .

**أثر برنامج تدريبي لاستراتيجيات ما وراء الذاكرة على التذكر والتفاعل
الاجتماعي والتحصيل الأكاديمي لدى المتخلفين عقلياً القابلين للتعلم
في ضوء الدمج الشامل**

The Effectiveness of a Training Programme of Metamemory Strategies on
Remembering, Social Interaction and Academic achievement
of the Educable mentally Retarded in
the Light of Inclusion

Abstract

The Effectiveness of a Training Programme of Metamemory Strategies on
Remembering, Social Interaction and Academic achievement of the Educable
mentally Retarded in the Light of Inclusion .

The present study aims at:

١. Constructing two measuring tools of remembering and social interaction of the mentally retarded educable children.
٢. Constructing a training programme of the metamemory strategies of the mentally retarded educable children.
٣. determining the effect of a training programme of the metameory strategies on metameory skills, remembering, social interaction and academic achievement of the mentally retarded educable children.
٤. Determining the effect of inclusion and isolation systems on metameory skills, remembering, social interaction and academic achievement of the mentally retarded educable children.

The researcher deduced the following results:

١. There are significant statistical differences between the mean scores of the experimental group students and the first control group students in the post administration in metamemory skills, remembering, social interaction and academic achievement for the sake of the experimental group student' mean scores.
٢. There are significant statistical differences between the mean scores of the experimental group students and the second control group students in the post

administration in metamemory skills, remembering, social interaction and academic achievement for the sake of the experimental group student' mean scores.

٣. There are no significant statistical differences between the mean scores of the first control group students and the second control group students in the post administration in metamemory skills, remembering, social interaction and academic achievement.
٤. There are significant statistical differences between the mean scores of the pre administration and the post administration of the experimental group students in metamemory skills, remembering, social interaction and academic achievement for the sake of the mean scores of the post administration.
٥. There are no significant statistical differences between the mean scores of the pre administration and the post administration of the first control group students in metamemory skills, remembering, social interaction and academic achievement.
٦. There are no significant statistical differences between the mean scores of the pre administration and the post administration of the second control group students in metamemory skills, remembering, social interaction and academic achievement.

قسم المناهج وطرق التدريس
دراسة علاجية لمعوقات تدريس العروض بالمرحلة الثانوية الأزهرية
في ضوء برنامج قائم على الوظيفية

Study for Treating the difficults of teaching Rhyme at Secondary Stag of Al-Azhar
according to a Program depending on afunctional

By

Mahmoud abd el-aziz mahmoud el-mahdy

Summry

In fact, Prosedy is an important aspect for learners as it gives poetry reader a big fun and the sense of its music. It keeps for poetry its correct reading and it helps students to reach with poetry, feeling of music and to neglect errors if poetry isn't stressed. The sense of poetry's music and rhymes share in acquisition learning the Arabic Language out of understanding the meaning of verses. It helps discovering the linguistic and grammatical errors as well. The prosedy's rhyme often guides the reader to limit the correct word qualification and it's parsing.

As a matter of fact, teaching prosedy at Al – Azhar Secondary Stage depends on speeching and memorizing rare rhymes uncompeled evidences, keeping away from applied aspect, stressing on memorizing the measures stressing on the skill of cutting verses and neglecting the other ones.

Moreover, there are lots of strange idioms. All these reasons due to the week of the students level in performance and understanding Prosedy, ad disliking it as well. So, the researcher does his best to discover the best way of teaching Prosedy at Al – Azhar secondary Institutes, to discover the problems of teaching Prosedy and to try solve them .

Introducing to student, The functional benefited aspects from prosedy sound nature.

Therefore, the study problem is limited the following main question:

What is the effect of Prosedy programme depending
on the functional way in treating of teaching
Prosedy at AL – Azhar Secondary Stage?

This question divides into some sub – questions as follow:

- ٦- What are the blocks of teaching prosedy for Al – Azhar secondary stage students?
- ٧- How can we make or design a programme depending on the functional way to treat the blocks of teaching prosedy at Al – Azhar Secondary Stage?

- ٨- What is the effect of the suggested functional programme to treat of teaching prosedy blocks at Al – Azhar Secondary Stage?
- ٩- What is the relationship nature between the students understanding and their sound performance to prosedy skill?

تأثير التدريس باستخدام الكمبيوتر في تنمية التحصيل والتفكير الابتكاري والاتجاه نحو فن البيع والترويج لدى طلاب المرحلة الثانوية التجارية

The Effect of Computer- Assisted Instruction on Developing Commercial Secondary
Students Achievement, Creative Thinking and the Attitude
of Wards Salesmanship and Promotion
by

Rabab Abdul Maksoud Youssef AbdulKader

summry

In the present age which is characterized with quick change in all fields of life, creative thinking is considered of great importance in all educational stages, especially at the commercial secondary level. It is obvious from teaching the curriculum of selling and marketing that the usual methods based on dictation and keeping by heart are not suitable for developing creative thinking among students, so finding alternatives is necessary. Previous research and studies proved some methods for developing creative thinking which match the technological progress in the present age. These methods include using computer in teaching that contributes greatly to the development of creative thinking and directs a learner towards creativity and invention instead of memorization.

Statement of the Problem

The problem of this study was stated in the following main question:
What is the effect of using a suggested computer program on developing achievement, creative thinking and tendency towards selling and marketing art among commercial secondary school students?

Results related to the sample's performance in the achievement test

- There is no significant difference on the ٠.٠٥ level between the mean scores of the control group and the experimental one in the post-achievement test on the cognitive level.
- There is a significant difference on the ٠.٠٥ level between the mean scores of the

control group and the experimental one in the post-achievement test on the understanding, application, and analysis levels and total achievement level in favor of the experimental group.

Thus, one can conclude that there is a significant difference on the 0.05 level between the mean scores of the control group and the experimental one in the post-achievement test on the understanding, application, and analysis levels and total achievement level in favor of the experimental group. The null hypotheses ١, ٣, ٤, ٥ are rejected and the second null hypothesis which states that there is no significant difference on the 0.05 level between the mean scores of the control group and the experimental one in the achievement test on the cognitive level is proved.

Results related to students' performance in the creative thinking test There is no significant difference on the 0.05 level between the mean scores of the control group and the experimental one in the scores of the post test of creative thinking as whole and fluency, flexibility and originality in favor of the experimental group.

Thus, one can conclude that there is a significant difference on the 0.05 level between the mean scores of the control group and the experimental one in creative thinking test in favor of the experimental group. Consequently, the null hypotheses (٦, ٧, ٨, and ٩) are rejected.

Results related to students' performance on tendency scale:

- There is a significant difference on the 0.05 level between the mean scores of the control group and the experimental one on the tendency towards selling and marketing art scale in favor of the experimental group.

Thus, one can conclude that there is a significant difference on the 0.05 level between the mean scores of the control group and the experimental one on the tendency towards selling and marketing art scale in favor of the experimental group. Consequently, the tenth null hypothesis is rejected.

تأثير التدريس بتكنولوجيا مختبر العلوم الافتراضي على تنمية مهارات
التفكير العليا في العلوم والوعي بتكنولوجيا المعلومات لدى طلاب الحلقة
الثانية

من مرحلة التعليم الأساسي

The Effect of Teaching Using Virtual Science Laboratory Technology on Developing
Higher Order Thinking Skills in Science and awareness
of Information Technology among Students of the Second Stage of Basic Education
by

Ibrahim Ibrahim Ahmed Nawwar

Abstract

The main goal of this search is; How the effect of using virtual science laboratory technology to develop higher order thinking skills of science and information technology awareness among the students of second stage in the basic education.

Search Results: These results are:

- ١- There are significant differences statistics between the Avery of degree in the first experimental group (WAN) and the control group in the test of higher order thinking skills (analyzing, connecting, synthesizing, and imagining) of science after teaching at the level of (≤ 0.05).
- ٢- There are significant differences statistics between the Avery of degree in the first experimental group (LAN) and the control group in the test of higher order thinking skills (analyzing, connecting, synthesizing, and imagining) of science after teaching at the level of (≤ 0.05).
- ٣- There are significant differences statistics between the Avery of degree in the first experimental group (WAN) and the control group in the measurement of information technology awareness (affective and knowledge domains) after teaching at the level of (≤ 0.05).
- ٤- There are significant differences statistics between the Avery of degree in the first experimental group (LAN) and the control group in the measurement of information technology awareness (affective and knowledge domains) after teaching at the level of (≤ 0.05).

- ٥- There are positive relation between higher order thinking skills (analyzing, connecting, synthesizing, imagining) of science and information technology awareness (affective and knowledge domains) among the students of second stage in the basic education after teaching virtual science laboratory technology.

**تأثير إستراتيجيتي ما وراء المعرفة والتعلم القائم علي الاستبطان في
تنمية التحصيل الإبداعي والتفكير الناقد في الدراسات الاجتماعية،
والميل نحو المادة**

لدي تلاميذ المرحلة الثانية من التعليم الأساسي

The Development of Creative Achievement
and Critical Thinking in Social Studies, and The Tendency Towards The Subject of
The Pupils
in The Second Stage of Basic Education."

By

Elsayed Fathi Attia El Weshi

Abstract

the impact of my strategy beyond the knowledge and learning
Introspection is based on the achievement in the development of creative thinking
Critic of social studies, and the tendency towards the material I have children The
second stage of basic education. - Degree: Doctor of Philosophy. This study aimed to
detect the impact of strategies of what metacognition And learning based on
introspection in the development of creative achievement And critical thinking and the
tendency to Article I of the seventh-grade students The second stage of basic
education compared with Strategy Followed, and identification of correlation between
the strategic steps And metacognition in the development of creative achievement and
the tendency to Article Seventh-grade students from the second stage of basic
education, And also to identify the correlation between the stages of learning
strategy Based on introspection and the ability in the development of creative
achievement And critical thinking and the tendency to Article I of the seventh grade
learners The second stage of basic education.

حمية الطب البيطري

أولاً: الماجستير

قسم الباثولوجيا الأكلينيكية
دراسات باثولوجيه اكلينيكيه علي تأثير بعض مضادات الأعشاب
كملوثات للمياه في الاسماك

Clinicopathological studies on the effect of some herbicides as water pollutants on fish

By

Rehab Marray Abd-el atty Nsr el-den

ABSTRACT

With in the progressive and widely use of the herbicides this days to Control the pest weeds, the aquatic environment exposed to the adverse effect related to the indisincement use of this chemicals .This adverse effect either not limited to it's lethal toxic effect to fish and other organisms only nor also extend to sub lethal effects such as decreasing the body weight gain, decrease the reproduction and resistance to diseases which direct our attention to investigate the effect of some herbicides that widely used in the egyptian agricultural practices and pollute our aquatic environment .

In this work the clinicopathological and histopathological studies were investigated in a total No. of ١٨٠ fresh water Nile cat fish (clarias lazera), divided into ٦ groups including the control one and exposed to two herbicides thiobencarb and butachlor either alone or in combination, with ١/١٠ and ١/٢٠ concentrations, whole blood, serum and tissue samples were obtained at ٢١ , ٤٢ and ٦٣ days .

This investigation results could be summarized as follow :-

- ١- Hematological study :-
 - a – Erythrogram described microcytic hypochromic anemia as a result of significant decrease in RBCs count, hemoglobin level, packed cell volume, MCV, MCH and MCHC in most of treated fish groups all over the exposure periods except the ٣rd period of exposure MCH and MCHC showed statistically non significant change .
 - b – leucogram in most fish groups in all exposure periods described leucopenia accompanied with significant increase in granulocytes and lymphopenia on the other hand monocytes were statistically non changed.

٢- Clinicobiochemical study :-

- ALT activities were significantly increased in the ٢nd and ٣rd periods of exposure while the ١st period of exposure showed non significant change .
- AST and ALP activities also total bilirubin, direct bilirubin and indirect bilirubin were significantly increased in all treated fish groups .
- Total lipid, triglycerides, cholesterol, total protein and albumin were significantly decreased in most of the treated fish groups .
- Ammonia, uric acid and creatinine were significantly increased in most of the treated fish groups all over the exposure periods meanwhile calcium and inorganic phosphorus showed significant decrease in the treated fish groups of the ١st exposure period and the contrary occurred on the ٢nd and ٣rd periods of exposure .
- all fish groups showed hypoglycemia in the ١st period, hyper-Glycemia in the ٢nd period and normoglycemia on the ٣rd period of exposure .
- Reduced glutathione showed significant decrease but lipid peroxides showed significant increase all over the exposure periods .

٣- Histopathological finding

At the ١st ٢١ day of exposure, all the treated fish groups showed mostly mild pathological finding such as hepatic vacuolar degeneration, interstitial nephritis, cerebral perivascular and pericellular edema, early malasia, focal glaiosis, splenic lymphoid depletion testicular vacuolar degeneration and degeneration of some spermatogenic cells .

At the ٤٢ and ٦٣ days post intoxication, all the treated fish groups showed mostly moderate to severe pathological finding such as hepatic vacuolar degeneration, hepatic necrosis, fatty change, severe interstitial nephritis, tubular degeneration, mononuclear cell infiltration, cerebral spongiosis, edema, malasia, astrocytosis at the late stage, splenic and complete necrosis of the germinal epithelial cells .

قسم التغذية والتغذية الأكلينية تأثير السيلينيوم العضوي على أداء بداري التسمين

Impact of dietary organic selenium supplementation on broiler performance

By

bdel-wahab Ali Amin Hemida

Summary

Selenium has been documented as an essential trace element, important for the health in both animal and hunch. It is recognized as having anti carcinogenic and antiviral properties and is known to have an important role in reproduction, immuno competence and ageing. To evaluate the effect of three different organic selenium sources on broiler performance, Immune response and Drip loss of carcass after deep freezing one hundred, one week broiler chicks were allocated at random into four groups. The four groups were fed with the basal diet (control) or diet supplemented with organic selenium of different sources (Selemax (٠.٧٥ppm) & Selenosource (٠.٧٥ppm) and Sel-Plex at the level of (٠.١٥) ppm.

The basal diet was formulated to meet nutrient requirements of the broiler chicks according the birds were reared on open flour system, the area of the floor was nearly $\mu\text{m}^2/\text{group}$ and the floor was bedded with copped wheat straw. The temperature was maintained at 33°C for first ٤ days of age then decreased 3°C per week until maintained at $24-27^\circ\text{C}$ till the end of experiment. The birds had the free access to the feed and water for ٢٤hr. The light was continuously maintained during day and night for the whole experimental period.

Every week, the birds were weighed, their feed intake was measured and the FCR was calculated to measure the growth performance and feed utilization of the experimental chickens all the chicks were vaccinated against Newcastle and Gumbora diseases Blood samples were collected on the day ٤th in order to measure the humoral Immune response.

Five birds from each group were randomly selected, weighed before slaughtering carcasses were defeathered, processed & eviscerated. Determination of carcass weight before and after deep freezing was performed in order to measure the drip loss.

The results showed that there is no significant effect of the supplemental organic selenium on growth performance, the hunoral immune response and the drip loss but it numerically decreased mortality rate of the broiler chicks.

التغذية والعرج في مزارع الأبقار الحلاب

NUTRITION- RELATED LAMENESS IN DAIRY CATTLE FARMS

By

Hebatelrahman M. Mossad

Abstract

In summer ٢٠٠٨ lameness was observed in four dairy farms in Egypt with high prevalence. The prevalence of lameness was ٢٤.٣٩; ٢٢.٢٥; ٢٣.١٤; and ٤٠% in farm# I, II, III, and IV respectively. So, this work was a field study to reveal the possible causes of lameness prevalence from a nutritional point of view.

Three hundred and one primiparous and multiparous Holstein dairy cows in early lactation period (DIM ٠ to ١٢٠), weighed ٦٢٠ + ٤٠ Kg were used in this study. The cows were distributed in the four farms as the following ١٠٠, ٩٥, ٨٥, and ٢١ in farm # I, II, III, and IV respectively. Cows were housed in a free stall pens, cows in farm # I, II were distributed into ٣ pens, in nearly equal numbers, while in farm # III cows were kept in two nearly equal pens. Cows in farm # IV were maintained in one pen. The floor type was mud in the farm # I, II, and III, and concrete in farm # IV.

The evaluations conducted on the farms were for cows and rations. The evaluations carried out on the cow were for locomotion, manure; DMI, and milk yield. Whereas, the rations were physically and chemically evaluated and aflatoxins (B^١, B^٢, G^١, and G^٢) level was screened.

Feeding aflatoxins contaminated feeds, and/or high NFC/low NDF diets; or high fat-NFC/low NDF diets are associated with increased the fluidity of manure (indicating subacute ruminal acidosis) and increased the prevalence of lameness, decreased DMI and milk yield.

In Conclusion, results of this study indicated that the nutrition program affects rumen health, which influences hoof health. Ration formulation involves a balance between acid and buffer production. The risk of SARA can be minimized by considering the feed ingredients used to formulate the ration, along with the environment and management specific to that dairy. The formulation balance should be shifted toward feed safety, forage NDF balance and less NFC level when the cow's environment (heat stress abatement, stall comfort) or management (DM and ration accuracy) is not as comfortable or reliable as desired. Farm management should strive to ensure that the consumed ration is extremely similar to the formulated ration and safe.

تأثير اضافة الاحماض العضوية على مستوى الألياف وحدوث الإضطرابات المعوية بالأرانب

IMPACT OF ORGANIC ACIDS ADDITION ON FIBER LEVEL AND
OCCURRENCE OF INTESTINAL DISTURBANCES IN

By

Amira Mostafa Sharaf El-Deen

Abstract

Organic acids are routinely included in diets for monogastric animals in Europe in order to replace antibiotics as growth promoters. Acidifiers have also been assayed for intensive rabbit production diets, either as organic acids (blends of several acids) or their salts, with research being focused mainly on both health and productive performances.

The impact of organic acids fortification for grower New Zealand x Californian rabbit diets having different levels of fiber (١٨ & ١٤ % ADF) on growth performance, carcass traits as well as nutrients digestibility and energy nutritive value (TDN and DE) were demonstrated in this study.

Results obtained revealed that the body weight gain, feed conversion values showed no significant differences between the rabbits fed the control diet and those fed organic acids fortified diets and have the same nutrients content while the groups fed low fiber diets were significantly ($P < 0.05$) lower than groups fed normal fiber diet and this may be attributed to the observed diarrhea due to low fiber level in their diet. However, feed intake for all groups fed organic acid supplemented diets were significantly ($P < 0.05$) lower than the control group.

- Carcass traits and dressing percentage values of rabbits fed the experimental diets and slaughtered at ١١ weeks old revealed that there was no significant difference in the rabbits fed the control diet and those fed organic acids fortified diets.
- The results of digestibility of nutrients of organic acids fortified diets revealed that there is no significant difference between all groups and the control except for group with ٠.١٥% organic acids and fed low fiber diet showed a significant decrease in the digestion coefficient of crude fiber fractions (NDF, ADF, Cellulose and hemi-cellulose%).

In Conclusion, the used blend of the dietary organic acids in this study have no significant effect on growth performance of the rabbit and no major positive response over the control was observed on the diet digestibility and nutritive value of the experimental diets.

قسم الطفيليات

دراسات عن الطفيليات الخارجية لبعض الطيور المهاجرة STUDIES ON ECTOPARASITES OF SOME MIGRATORY BIRDS

By

Amira Ghalib Ahmed Ghalib

Abstract

The results are given of collections of ectoparasites of some migratory birds of Burullus Lake during February ٢٠٠٦ to January ٢٠٠٧. The ectoparasites collected are: (Anatoecus dentatus and Anaticola crassicornis from northern pintail), (Anatoecus dentatus, Anaticola crassicornis, Brulia apiasteri and Megninia cubitalis from coot), (Menacanthus stramineus, Dermanyssus gallinae and Argas persicus larva from cattle egret), (Pseudomonopon pilosum, Strigiphilus cursitans, megninia cubitalis and Falculifer rostratus from red back shrike), (Trinoton querquedula, Menacanthus cornutus from gargany duck), (Rallicola minutus, Strigiphilus cursitans, Pseudomonopon pilosum, Megninia cubitalis, Dermanyssus gallinae and Pterophagus strictus from moorhen), (Pseudomonopon pilosum, Strigiphilus cursitans, Anticola fuligulae, Megninia cubitalis and Pterophagus strictus from willow warbler), (Menacanthus stramineus, Gonoides retractus, Oxylipurus dentatus, and Megninia cubitalis from migratory quails). The prevalence of lice was ٧٨.٥% while mite was ٢٨.٩% and tick ١٣%.

دراسات علي طفيل الساركوسيسست الذي يصيب الجاموس في مصر

Studies on Sarcocystis species infecting water buffaloes in Egypt

By

Ahmed Mosad Elmorsy Elsayed

Abstract

In the present work ٥٢٨ water buffaloes were investigated for the infection with macroscopic *Sarcocystis* species at Elmahalla Elkobra slaughterhouse. The prevalence of *S.fusiformis* was ١٧.٢ % in buffaloes ٢ – ٣ years old and ٦٨.١ % in buffaloes over ٥ years old, whereas *S.buffalonis* prevalence was ١٠.٢ % in buffaloes ٢ – ٣ years and ١٣.٢ % in buffaloes ٥ years old. Mixed infection with both *Sarcocystis* species in old age animals (٥ years old) was ٨٤%, while it was ٣٠% in younger age group (٢ – ٣ years). The present work reported for the first time in Egypt the infection of water buffaloes by two *Sarcocystis* species *S. buffalonis* and *S. dubeyi*.

Ultrastructurally, sarcocysts of *S.dubeyi* were characterized by thick cyst wall measuring from ٥ – ٧.٥ μm and cylindrical villar protrusions that were arranged in palisade like appearance, bending laterally at an angel of ٤٥ to the cyst wall. The length of the villar protrusion ranged from ٤ – ٧.٥ μm . The diameter of its base measured ٠.٧ – ١ μm and the middle portion was dilated ١ – ١.٥ μm and narrow distal portion ٠.٣ – ٠.٥ μm with blunt end. There were spaces between the villar protrusions that were ranging from ٥٠ – ١٨٠ nanometers in diameter. The ground substance was smooth and measured ٠.٣ – ٠.٥ μm .

قسم أمراض الأسماك ورعايتها
دور المساعدات الحيوية فى السيطرة على بعض الأمراض
فى البلطى النيلى المستزرع

ROLE OF PROBIOTICS IN THE CONTROL OF SOME DISEASES OF
CULTURED *Oreochromis niloticus*

By

Marwa Fathy Abd El-Ghafar Abd El-Kader

Abstract

This study was designed to evaluate the possible protective effects of some commercial Probiotics; Better yeast ®, Organic green culture ® and Bactocell ® as feed supplements for ٤٤ days on health, growth, performance and immune status of *O. niloticus*. Blood sampling for hematological and immunological investigation was carried out at the days ١٤th, ٢٤th, ٣٤th and ٤٤th of the experimental period and the fish weighing for the growth performance assessments was carried out at the zero and ٤٤th day.

After ٤٤ days from the beginning of the experiment the ١st challenge test was done, simultaneously, the ٢nd test was done prior to stop supplementation of probiotics for ١٠ days.

The results showed that the probiotics used are potential activators, to the non specific immune responses, cell mediated and humeral, improve the health status and growth performance of *O. niloticus*.

قسم الأمراض المشتركة وبائية بعض الامراض المشتركة البكتيرية فى الطيور

EPIDEMIOLOGY OF SOME AVIAN BACTERIOSES

By

Mostafa Safwat Mostafa Abdou

Summary

Chicken play an important role in spreading of bacterioses especially occupational bacteriosis due to the contact of the workers for long time in closed environment with living birds and wastes of birds and food-borne bacterioses, as their eggs and meat are popular and easy food.

On the other hand, the epidemiology of some Avian bacteriosis and their control were not defiantly clarified, so the aim of this work is to clarify the role of chicken in epidemiology of some bacterioses (*E. coli*, *Salmonella* spp., *Pseudomonas aeruginosa* and *Staphylococcus aureus*) and their control in Kafr El-Sheikh Governorate.

From ٥٠ chicken farms the following samples were collected.

- Air sample (١٠٠).
- Litter samples (١٠٠).
- Cloacal swabs (١٠٠).
- Egg shell rinse (١٠٠).
- Egg contents (١٠٠).

From chicken slaughter shops the following samples were collected.

- Meat samples (١٠٠).
- Giblets samples (١٠٠).

From workers in chicken farms the following samples were collected.

- Sputum samples (١٠٠)
- Hand swabs (١٠٠).
- Stool samples (١٠٠).

Results of bacteriological examination of the collected samples as the following:

- Isolation of ٢١٧ isolates of *E. coli* as following:

From litter ٣٢ isolates, cloacal swabs ٣٠ isolates, meat samples ٣١ isolates, Giblets samples ٣٣ isolates, egg shell rinse ٣٥ isolates, egg contents ١٠ isolates, air samples ٧ isolates, human stool samples ٧ isolates, sputum samples ٤ isolates and from human hand swabs ٢٨ isolates.

- Isolation of ٣٥ salmonella isolates, serotypes of salmonella isolated are ٤ serotypes which are.
 - *Salmonella enteritidis* (١٥ isolates) ٣ from litter samples, ٣ from cloacal swabs, ١ from meat seamless, ١ from Giblets samples, ٣ from egg shell rinse, ٢ from egg contents and ٣ isolates from hand swabs.
 - *Salmonella typhimurium* ١٠ isolates, ٢ from litter samples, ٢ from cloacal swabs, ١ from meat samples, ٢ from Giblets samples, ١ from eggshell rinse and ٢ from hand swabs.
 - *Salmonella gallinarium* ٨ isolates, ٤ from litter samples, ٣ from cloacal swabs and ١ from hand swabs.
 - *Salmonella* Dublin ٢ isolates, ١ from litter samples and ١ from cloacal swabs.
- Salmonella not isolated from air samples, sputum samples and human stool samples.
- Isolation of ٦١ isolates of *Ps. aeruginosa* from the collected samples as the following: Litter samples (١٢) isolates, cloacal swabs (١١) isolates, meat samples (٤) isolates, Giblets samples (٥) isolates, air samples (٥) isolates, egg shell rinse (٩) isolates, egg contents (٢) isolates, sputum samples (٣) isolates and human hand swabs (١٠) isolates.
- *Pseudomonas aeruginosa* not isolated from human stool samples.
- Isolation of ١٩٠ isolates of *Staphylococcus aureus* from collected samples as the following: Litter samples (٣٦) isolates, cloacal swabs (٢١) isolates, meat samples (١١) isolates, Giblets samples (١٣) isolates, egg shell rinse (٢٠) isolates, egg contents samples (٥) isolates, air samples (٣٠) isolates, sputum samples (٢٦) isolates and human hand swabs (٢٨) isolates.
- *Staphylococcus aureus* not isolated from human stool samples.
- From the previous results we observe that chicken play an important role in transmission of some bacteriosis (*E. coli*, *Salmonella* spp., *Ps. aeruginosa*, *Staph. aureus*) which play an important role in occupational zoonoses and food-borne zoonoses, so we should focusing on their epidemiology, prevention and control to decrease like these human affection.

- For control of these avian bacterioses, the present study showed that:
 - Disinfection of air with virkon-s lead to destruction of *E. coli*, *Salmonella* spp., *Ps. aeruginosa* and *Staph. aureus* present in air before disinfection with virkon-S.
 - Disinfection of litter with virkon-S result in complete elimination of *Salmonella* and *Staph. aureus* present in litter before disinfection and significant reduction in % of *E. coli* in the examined samples from ٣٠% before disinfection to ٥% after disinfection, and significant reduction in % of *Ps. aeruginosa* from ٢٠% in examined samples before disinfection to ٥% after disinfection.
 - Boiling of chicken carcasses (meat and Giblets) for ١ hour and chicken eggs for ١٠ minutes resulting in complete elimination of chicken carcasses and chicken egg contents from *E. coli*, *Salmonella*, *Ps. aeruginosa* and *Staph. aureus* which present in samples of meat, Giblets and egg contents before boiling.
 - Good grilling of chicken meat resulting in complete elimination of *E. coli*, *Salmonella*, *Ps. aeruginosa* and *Staph. aureus* from superficial and deep chicken meat from these bacteria which present in chicken meat (superficial and deep meat) before Grilling.
- Freezing of chicken meat at (-١٨°C) for ٢٤ hours resulted in:
 - Reduction in percentages of isolation of *E. coli*, *Salmonella* and *Staph. aureus* from superficial layer of chicken meat from ٣٠, ١٠ and ٢٠ before freezing to ٢٥, ٥ and ١٥ after freezing, respectively but percentage of isolation of *Ps. aeruginosa* not changed before and after freezing (١٠%).
 - Reduction in percentages of isolation of *E. coli* and *staph. aureus* from deep layer of chicken meat from ٢٥ and ١٥ before freezing to ٢٠ and ١٠, respectively after freezing but percentage of isolation of *Salmonella* and *Ps. aeruginosa* before and after freezing were not changed for both *Salmonella* and *Ps. aeruginosa* (١٠%).
 - Freezing of chicken meat had a little effect in control of *E. coli*, *Salmonella*, *Ps. aeruginosa* and *Staph. aureus* in chicken

قسم البكتريولوجيا والفطريات والمناعة يرسينيا انتيروكوليتكا فى حيوانات المزرعة

Yersinia enterocolitica in farm animals

By

Fatma El-Zaharaa Mohamed Abo El-Yazeed El-Sherbeny

Summary

Bacteriological and serological studies of *Y. enterocolitica* in farm animals suffered from diarrhea were carried out. A total number of ٢٠٠ samples from diseased animals including cows, buffaloes, sheep and goats were collected from private farms. The samples were from fecal contents (٢٠٠) which were subjected for bacteriological examination. A total of ٢٣ *Y. enterocolitica* strains were recovered from ٢٠٠ samples. The prevalence rates in different animal species were ١٤%, ١٠%, ١٤% and ٨% in cows, buffaloes, sheep and goats respectively.

Isolation of *Y. enterocolitica* strains was done by two techniques; direct plating and cold enrichment. One (٠.٥%) sample was positive for *Y. enterocolitica* by direct plating technique and ٢٢ (١١.٥%) samples were positive by cold enrichment method, most of these isolates were obtained at ٢nd and ٣rd week of incubation. On the other side, the highest proportion of *Y. enterocolitica* isolates was obtained from the cow fecal contents by cold enrichment technique. A much lower isolation rates were obtained from goats faecal contents in cold enrichment technique (٢%).

دراسات بكتيرية على الرئة في الجمال

Bacterial studies on lung of camels

By

Marwa Mohamed Mohamed El-Sherbiny

Abstract

this study was carried out on ٣٠٨ lung samples distributed as ٢٠٥ from apparently healthy and ١٠٣ from pneumonic lung samples from imported slaughtered camels at El-Basatein abattoir, cairo-Egypt.

Bacteriological examination revealed that ٢٠٣(٦٥.٩١%) of the examined samples were positive for bacterial isolates, distributed as ١٢٤(٦٠.٤٩%) from apparently healthy lungs and ٧٩(٧٦.٧٠%) from pneumonic lungs of slaughtered camels. The main bacterial isolates were Stah.aureus and E. coli from both apparently healthy and diseased lungs. The highest mixed bacterial isolates were Proteus penneri+ Micrococcus spp. ١٣ (١٣.١٣%).

Serogrouping of E. coli indicated that E. coli O١١١ was predominant from apparently healthy lungs while E. coli O٥٥ was predominant from pneumonic lungs of camels. The pathogenicity test of some bacterial isolates revealed that Arcanobacterium pyogenes, Diplococcus pneumoniae, E. coli O٥٥, E. coli O١١٥ ,Klebsiella pneumoniae, Mannheimia haemolytica, Pasteurella multocida and Pseudomons aeruginosa were ١٠٠%. The sensitivity test for the isolated bacteria indicated that most of isolates were highly sensitive to Enrofloxacin and Norfloxacin and resistant to Streptomycin and Trimethoprim. SDS-PAGE analysis of klebsiellae and E. coli showed that they contained ٥-١٢ bands with molecular weight ranged from ٧.٢١٨-١٧٠.٩٧ KDa.

أنواع سموم ميكروب الأيرومونات السائدة في إسهال الماشية

Dominant toxigenic Aeromonas species in diarrhoeic cattle

By

Dina Helmy Abd El-Ghany Mohamed

Abstract

Aeromonas species was incriminated in enteric diseases of cattle Aeromonas species were isolated from ١٨٢ cows and ٨٦ buffaloes with an isolation rate of ٢٤.١٧% and ١٦.٢٧% respectively. The most predominant species was A.hydrophila ٣٤ isolates followed by A.caviae ١٣ isolates and A.vernoii biovar sobria ١١ isolates. The highest isolation rate of Aeromonas species from examined farm animals were in Summer followed by Spring and Autumn then Winter. A.hydrophila isolates were more virulence and pathogenic followed by A.vernoii biovar sobria and A. caviae. Aeromonas species were susceptible to chloramphenicol, ciprofloxacin, norfloxacin and gentamicin while penicillin G and erythromycin were resistant.

قسم التوليد والتناسل والتلقيح الإصطناعي دراسات على عدم الشباع في أبقار اللبن

STUDIES ON ANESTRUM IN DAIRY CATTLE

By

Ahmed Nasef Ramadan

Abstract

Dairy herd profitability is directly related to milk production and the maximum daily milk production over the lifetime of a cow can only be achieved by ensuring optimal calving interval this has diverted the interest of veterinarian visiting dairy herds to try to improve there reproductive efficiency their efforts are more than justified by the economic loses associated with the inappropriate timing of pregnancy, one of the most important causes of anestrus in high dairy cattle was ovarian inactivity.

Since most of veterinarians in Egypt use GnRH for treatment of ovarian inactivity, therefore the aim of the present study were to determine the factors which may be related to post partum anestrus and to evaluate the administration of GnRH for treatment of postpartum ovarian inactivity.

A total of ١٦٥ Holstein cows (١٥٢ anestrus and ١٣ cyclic) were used in the present study during the period from May ٢٠٠٦ to August ٢٠٠٩. Cows which had calved for ٤٥ days and did not express estrus signs were considered anestrus; animals were belonging to ٤ dairy farms with the same management in Kafr El-Sheikh, Behara, Gharbia & Dakahlia provinces.

قسم مراقبة الأغذية
دراسات عن فيروس الحمى القلاعية مع محاولة لتثبيطه في الألبان
(الرقابة الصحية على الألبان ومنتجاتها)

"Studies on foot and mouth disease (FMD virus, and trials to control in milk" (Milk Hygiene)

by

Mervat Ibrahim Moustafa El-Hassanine

Abstract

Foot and mouth disease (FMD) is an highly contagious viral disease and cause great economic losses in milk and meat production and also had public healthy importance.

This study included a total of ٣٠٠ milk samples, ١٠٠ blood samples and ٥٠ tissue samples from tongue epithelia and ruptured vesicles.

The antigen of FMD virus type A could be detected in milk samples by percentage of ٣٦% and type O by ٧ % .

The antigen of FMD virus type A could be detected in tissue samples by percentage of ٥٠% and type O by ٢٢ %.

The antibodies of FMD virus type A could be detected in milk samples by percentage ٤٩.٦% and type O by ٧١%.

The antibodies of FMD virus type A could be detected in blood samples by percentage ٥٥ % and type O by ٧٥ %.

FMD virus was detected in ٢ samples (٦.٦%) out of ٣٠ samples of kareish cheese collected from the same examined area .

FMD virus could be survived pasteurization of milk at ٦٣°C for ٣٠ minutes, and the virus could be isolated from refrigerated milk at ٤°C, but could not be detected in boiling milk for ٥ minutes.

The public health importance of FMD virus and the methods used to control spreading of the disease among dairy animal were discussed.

هل الألبان ومنتجات الألبان مازالت عوامل مهمة لنقل عصويات السل إلى الإنسان ؟

Are milk and milk products still Important vehicle for transmitting Tubercle bacilli to human? (milk hygiene)

By

Shaimaa Mohamed Ismail Aly Shalapy

Abstract

In this study depends on application of conventional test (tuberculin test, P.M, bacteriological and biochemical test) and more advanced technique PCR which characterized by rapid, easy and more specific to tuberculosis identification. A total of (٥٤٠) milk and milk products samples were examined of them ١٢٠ were mixed market cows milk samples, (٢٢٥) were individual samples from tuberculin positive reactors and (١٣٠) were individual samples from tuberculin negative reactors in addition (٦٥) milk products samples including (١٥) cheese samples, (١٥) butter samples and (٣٥) yogurt samples were examined.

الجودة الكيميائية و البكتريولوجية للألبان الجافة

CHEMICAL AND BACTERIOLOGICAL QUALITY OF MILK POWDER

By

Doaa Mohamed Hassan Ali Shahine

Abstract

A total of one hundred and fifty random samples of dried milk powder, ١٠٠ whole milk powder samples [٦٥ Brand (I) and ٣٥ Brand (II)] and ٥٠ Infant milk formula (IMF) were collected from local different markets and pharmacies in Dakahlia government for chemical and bacteriological examination. The obtained results revealed that the mean titratable acidity in examined whole milk powder Brand (I, II) and Infant milk formula samples were $٠.١٥\% \pm ٠.٠٠١$, $٠.١٤\% \pm ٠.٠٠١٣$ and $٠.٠٧\% \pm ٠.٠٠٢$ respectively. The mean values of fat percentage in whole milk powder Brand (I), (II) and Infant milk formula samples were $٢٠\% \pm ٠.٤٨$, $٢٠\% \pm ٠.٣٢$ and $٢٤.٧\% \pm ٠.٣٤$ respectively. Total aerobic count could be detected in all the examined samples with mean counts of $١.٥ \times ١٠^٤ \pm ٣.٦ \times ١٠^٣$, $١.٥ \times ١٠^٣ \pm ٢.٨ \times ١٠^٢$ and $١.٤ \times ١٠^٢ \pm ٢.٥ \times ١٠^٢$ for whole milk powder Brand (I), (II) and Infant milk formula samples respectively but ٦ out of ٦٥ samples of whole milk powder Brand (I) with unaccepted count. *Salmonellae* could not be detected in any of the examined milk powder samples. *B. cereus* could be detected after plating on PEMBA agar using surface plate technique, confirmed *B. cereus* samples represented ٤٤.٦% ($٢٩/٦٥$), ٥.٧% ($٢/٣٥$) and ١٤% ($٧/٥٠$) of examined whole milk powder Brand (I), (II) and Infant milk formula samples, and with an average count of $٦.٣ \times ١٠^٢ \pm ١.٤ \times ١٠^٢$, $٣.٨ \times ١٠^٢ \pm ٢ \times ١٠^٢$ and $١.٤ \times ١٠^٢ \pm ١.٦ \times ١٠^٢$ for whole milk powder Brand (I), (II) and Infant milk formula samples respectively. *Staph. aureus* enterotoxins could not be detected in all the examined milk powder samples. The results allow to conclude that milk powder in spite of its low moisture content may at times be responsible for food poisoning to consumers and may contaminate other food, if it included in its preparation.

توكيد جودة اللحوم البقرية المعلبة المحلية والمستوردة

QUALITY ASSURANCE OF LOCAL AND IMPORTED CANNED BEEF

By

Ghada Abd El-Hamid Abo-Shaisha Mansour

abastret

١٠٠ random samples of local canned meat, local canned sausage, imported corned beef and imported canned luncheon (٢٥ of each) were collected from different supermarkets and shops at Kafr El-Sheikh and Tanta cities to be examined physically, chemically and bacteriologically.

Physical examination revealed that local canned beef products had highest percentages of defects and these defects were damage, leakage, external rust, overfilling, gelatin liquefaction, soft consistency, abnormal odour and abnormal colour and no physical defects could be detected in the examined samples of imported canned luncheon .

Chemical examination revealed that the mean values of the moisture percentages were $59.77 \pm 0.23\%$, $59.14 \pm 0.22\%$, $59.49 \pm 0.19\%$ and $59.46 \pm 0.19\%$; the protein percentages were $20.20 \pm 0.10\%$, $10.20 \pm 0.17\%$, $21.34 \pm 0.17\%$ and $12.51 \pm 0.10\%$; the fat percentages were $21.84 \pm 0.16\%$, $21.48 \pm 0.18\%$, $14.30 \pm 0.13\%$ and $14.49 \pm 0.09\%$; the ash percentages were $3.83 \pm 0.08\%$, $4.22 \pm 0.09\%$, $3.64 \pm 0.07\%$ and $3.88 \pm 0.07\%$; pH values were 6.10 ± 0.03 , 6.06 ± 0.03 , 6.02 ± 0.02 and 6.04 ± 0.03 and the mean values of TVN content were 10.86 ± 0.38 , 4.34 ± 0.20 , 7.90 ± 0.43 and 9.80 ± 0.46 mg/100g for the examined samples of local canned meat, local canned sausage, imported corned beef and imported canned luncheon, respectively.

Bacteriological examination revealed that the mean values of total aerobic spore former counts were $2.90 \times 10^4 \pm 1.3 \times 10^4$, $1.16 \times 10^4 \pm 4.73 \times 10^3$, $9.20 \times 10^2 \pm 0.86 \times 10^2$ and $3.37 \times 10^2 \pm 9.8 \times 10^1$ cfu/g; total anaerobic counts were $7.44 \times 10^2 \pm 3.23 \times 10^2$, $0.36 \times 10^2 \pm 2.22 \times 10^2$, $6.73 \times 10^2 \pm 3.04 \times 10^2$, $4.83 \times 10^2 \pm 3.04 \times 10^2$ cfu/g; *B. cereus* counts were $7.77 \times 10^2 \pm 0.73 \times 10^2$, $0.40 \times 10^2 \pm 4.09 \times 10^2$, $7.8 \times 10^2 \pm 0.00 \times 10^2$ and $2.00 \times 10^2 \pm 6.40 \times 10^1$ cfu/g and total *Staphylococcus aureus* counts were $1.04 \times 10^2 \pm 0.0 \times 10^2$ and $8 \times 10^2 \pm 0.0 \times 10^2$, 0 and 0 cfu/g, for the examined samples of local canned meat, local canned sausage, imported corned beef and imported canned luncheon, respectively, while the incidence of isolated coagulase positive *Staph. aureus* were 20% and 12% for the examined samples of local canned meat and local canned sausage, respectively.

These results were discussed to evaluate the quality of some local and imported canned beef products on the basis of some items of the Egyptian standard specifications.

الكشف عن التهاب الضرع الغير ظاهري بين حيوانات الحليب

DETECTION OF SUBCLINICAL MASTITIC MILK AMONG DAIRY ANIMALS

By

Abdallah El-Shahat El-Bayomy

Abstract

This study was carried out on ٧٠٢ apparently healthy lactating animals (٣٨٦ cows and ٣١٦ buffaloes) in Dakahlia Governorate. Those animals were of different stages of lactation, with normal looking milk. A total of ٢٨٠٨ quarter milk samples were collected from apparently healthy udder of lactating animals (١٥٤٤ quarter cow's milk samples and ١٢٦٤ quarter buffalo's milk samples) under complete aseptic percuation for California Mastitis Test (CMT) , The -ve and Traced test samples were discarded from the examination while the CMT ١+ve , ٢+ve and ٣+ve quarter milk samples collected in sterile screw capped bottles , Labeled then transferred immediately in an ice box to the laboratory. The collected sample was divided into two parts ; the first part was subjected to chemical examination, while the second part was subjected to bacteriological examination.

Out of ١٥٤٤ quarter cow's milk samples and ١٢٦٤ quarter buffalo's milk samples, ٢٦٢ (١٦.٩٧%) and ١٤٨ (١١.٧١%) samples proved to be positive for CMT with total positive samples of ٤١٠ (١٤.٦٠%) . The highest intensity of CMT reaction (٤١.٩٨ % and ٤٥.٢٧%) lied with in the score of (٢+ve) for cow's milk samples and buffalo's milk samples respectively with total percentage of ٤٣.١٧% also lied with in the score of (٢+ve).

The minimum acidity percentage were (٠.٠٥% and ٠.٠٨%) in cow's milk samples and buffalo's milk samples, while the maximum percentage were (٠.١٤% and ٠.١٣%) with mean values of (٠.١١% \pm ٠.٠٠٨ and ٠.١٠% \pm ٠.٠٠١) in cow's milk samples and buffalo's milk samples respectively. ١١٥ (٤٣.٩%) cow's milk samples and ٨٤ (٥٦.٧٦%) buffalo's milk samples lied with in the range of ٠.٠٥% < ٠.١٢%.

Chloride % \geq ٠.١٤% in ٩٧.٣٢% of CMT +ve cow's milk samples and in ٩٧.٩٧% in CMT +ve buffalo's milk samples.

The minimum fat % of examined cow's milk samples was ٢.١% and the maximum fat % was ٣.٩% with an average of ٢.٩٤ \pm ٠.٠٢% ,while in buffalo's milk samples the minimum fat % was ٢.٥% and the maximum fat % was ٦.٧% with an average of ٥.١٩ \pm ٠.٠٥%. ١٠٩ cow's milk samples (٤١.٦%) had fat % less the ٣%, while ٩٠ buffalo's milk samples (٦٠.٨٨%) had fat % less than ٥.٥%.

Infectious organisms isolated from the ٢٦٢ (CMT) positive cow's milk samples included Staph.aureus (٢٣.٨ %), Str.agalactiae (١١.٤٥ %) and E.coli (١٩.٤٦ %), and ١٤٨ from (CMT) positive buffalo's milk samples included Staph.aureus (٢٠.٢٧ %), Str.agalactiae (١٤.٨٦ %) and E.coli (٢٣.٦٤ %).

The sensitivity of isolated strains from CMT +ve samples to antibiotics was carried out and revealed that Staph.aureus was more sensitive to Flofenicol (٩٩%), Synulox RTU (٩٨%) and Enrofloxacin (٩٥%), while Str. agalactiae was more sensitive to Synulox RTU (٩٩%), Enrofloxacin (٩٧%), Chloramphenicol (٩٦%) and Flofenicol (٩٥%). Regarding to E.coli, it was more sensitive to Enrofloxacin (٩٨%), Synulox RTU and Flofenicol (٩٦%) and Gentamycin (٩٥%).

التقييم البكتريولوجى والنسيجى لبعض منتجات اللحوم

BACTERIOLOGICAL AND HISTOLOGICAL EVALUATION OF SOME MEAT PRODUCTS

By

Nagwa Talaat Wafa Abd El-Hady Assar

Abstract

A total of ١٠٥ samples (٣٥ from each fresh sausage, beef burger and minced meat) were collected from different shops and supermarkets at Kafrelsheikh Governorates, Egypt. The samples were examined for the bacteriological evaluation, The bacteriological results revealed that the mean value of total aerobic bacterial count, *enterobacteriaceae* count, coliforms count and *staphylococci* count were $8.39 \times 10^7 \pm 4.33 \times 10^7$, $1.39 \times 10^6 \pm 6.32 \times 10^5$, $9.42 \times 10^2 \pm 6.6 \times 10^2$ and $1.04 \times 10^7 \pm 4.3 \times 10^6$, respectively for fresh sausage, $6.87 \times 10^7 \pm 2.61 \times 10^7$, $1.31 \times 10^6 \pm 3.88 \times 10^5$, $9.07 \times 10^2 \pm 6.8 \times 10^2$ and $1.46 \times 10^7 \pm 5.33 \times 10^6$, respectively, for beef burger while the results of minced meat were $7.43 \times 10^7 \pm 2.6 \times 10^7$, $1.35 \times 10^6 \pm 7.75 \times 10^5$, $1.05 \times 10^2 \pm 4.7 \times 10^2$ and $6.92 \times 10^6 \pm 2.36 \times 10^6$, respectively. *Staphylococcus aureus* coagulase positive could be isolated from examined fresh sausage, beef burger and minced meat with an incidence of ٤٨.٤ %, ٤٣% and ٣١.٦%, respectively. *Salmonellae* could not be detected in all examined samples. most of the examined samples are higher than stated by the Egyptian Standard (٢٠٠٥).

On the other hand the histological examination was carried out on fifteen random samples of fresh sausage, beef burger and minced meat (٥ of each). exposed for sale at Kafrelsheikh markets in order to evaluate its quality through determining the incidence of different tissues incorporated in these products and give a clear picture of components present and performed to detect adulteration and falsification.

The obtained results revealed that Foreign tissues (tendon, cartilage, smooth muscle, retina of the eyes, embryonic tissues, skin, inflamed tissue and plant) were detected with various percentages in the examined samples. most of the constituents of the examined meat products are not in agreement with the legal requirements stipulated by Ministry of industry (٢٠٠٥).

قسم الجراحة والأشعة والتخدير دراسة تجريبية مقارنة لعلاج الالتهاب المفصلي في الحصان

A comparative study for treatment of experimentally induced arthritis in horses

By

Ahmed Mohamed Ateia Eldesouky Elmesiry

Abstract

The effect of intra-articular Isoflupresone and Hyaluronic acid (HA) on chemically induced arthritis was evaluated in ten horses. In each horse, both radio-carpal joint had a chemical articular cartilage injury by intra-articular injection of ٥٠ mg sodium moniodoacetate (MIA). Horses were divided into two groups for treatment. Group A (٥ horses) the right radiocarpal joint received an intra-articular injection of (١٠ mg) isoflupredone every ٨ days for a total of ٣ injections starting eight days after MIA injection while the left radiocarpal joint received saline. Group B (٥ horses) the right radiocarpal joint received ٢٥ mg of HA intra-articular every ٨ days for a total ٣ injection the same as in group A and the left radiocarpal joint received saline. Horses were maintained for ٦٤ days. Horses were evaluated clinically, and their radiocarpal joints were evaluated radiographically and macroscopically at the end of the study. Joint tissues were also collected and examined microscopically. There was a significant difference between isoflupredone, HA and saline treated limbs. Isoflupredone was superior to HA and saline treated limbs in especially in rapid improvement in lameness score and other clinical signs. Other parameters as synovial fluid analysis, radiographic, gross and histopathological examinations indicated the difference between Isoflupredone, HA and saline treated joints. It was concluded that Isoflupredone and Hyaluronic acid are good drugs for controlling and altering the process of osteoarthritis.

الوجهة الكيميائية الحيوية للاختلافات الجينية في السلالات المختلفة للماعز

BIOCHEMICAL PROFILE OF GENETIC VARIATION IN DIFFERENT STRAINS OF GOAT

By

Adham Mahmoud Mohamed Al-Khadrawi

Abstract

Goat milk protein is important because of its nutritional value for humans. Goat milk protein is composed primarily ($\pm 90\%$, w/w) of six major proteins: αS^1 -casein (αS^1 -CN), αS^2 -casein (αS^2 -CN), β -casein (β -CN), κ -casein (κ -CN), α -lactalbumin (α -LA) and β -lactoglobulin (β -LG).

β -lactoglobulin is a protein of 162 amino acid with a molecular weight of 36 kDa. It is the major whey protein in milk of ruminants, it is also found in milk of other mammals except humans and rodents.

Polymorphism of β -LG had been investigated in cattle and sheep, in which it has a remarkable effect on milk yield and composition (e.g. fat content, total protein content. etc.). Similarly, in goat, several alleles had been discovered at both DNA and protein levels. However, in goat, the effect of polymorphism of β -LG on milk yield is not clear.

The aim of this study was to detect polymorphism in the β -LG at both DNA and protein levels in different breeds of goat. In addition, analyzing the effect of polymorphism on goat milk yield.

The study was carried out on 20 female goats in Sakha farm in Kafr El-Sheikh province; all goats were in the beginning of lactation season. These goats weighed 50 ± 1.44 kg.

Investigation of β -LG polymorphism at DNA level was carried out by PCR Restriction Fragment Length Polymorphism method (PCR RFLP).

At protein level, polymorphism of β -LG protein was detected by using nondenaturing (native) Polyacrlamide Gel Electrophoresis (PAGE).

Results of this study clearly indicated that:

- ١- One polymorphic site was detected in the exon ٧ of goat β -LG gene.
- ٢- Two variants of goat β -LG protein were identified by electrophoresis (β -LG A and β -LG B), with different molecular weights.

قسم الفيروسولوجيا

بعض الدراسات الفيروسية عن التهاب الكبد الفيروسي في البط

SOME VIROLOGICAL STUDIES ON DUCK VIRUS HEPATITIS

By

Nermeen Abd El-Azeem El-Kholy

Abstract

This study include Isolation of DVH virus on ECE and EDE, Identification of virus by serological tests AGPT and serum neutralization test then administration of local isolate of duck virus hepatitis intramuscular at 9 day-old white Pekin duckling in doses of 10^4 ELD₅₀/bird, and live attenuated vaccines of Duck hepatitis virus. Measures some biochemical constituents and enzyme activities in the serum. The results were changes happened in liver functions due to degeneration happened in liver and this demonstrated by rising level of **AST, ALT, alkaline phosphatase** and Lower level of serum albumin, total protein with rising of globulin and decrease of A/G ratio. Changes in kidney functions with decrease calcium , phosphorus level.]

All vaccinated groups showed slight changes due to ducklings without history of maternal immunity.

ثانياً : الدكتوراة

قسم التغذية والتغذية الأكلينية مواد العلف غير التقليدية في علائق الدواجن

NON-CONVENTIONAL FEEDS IN POULTRY DIETS

By

Aly Helal Kamel Attia

Abstract

This experiment was done to investigate the effect of inclusion of ١٠% DDGS in broiler chicks diets in different growth stages on growth performance, some biochemical parameters and histopathological changes of liver and intestine.

It has been carried out using ٢٠٠ one day-old commercial Hubbard chicks which obtained from Egypt for grand father of poultry. The chicks were allotted into ٤ groups (A, B, C & D) and fed the control diet, diet containing ١٠% DDGS all the experimental period, control diet from ٠ to ١٠ days old then fed on diet containing ١٠% DDGS from ١١ to ٤٠ day old and fed control diet from ٠ to ٣٠ days old then fed on diet containing ١٠% DDGS from ٣٠ to ٤٠ days old, respectively.

The results demonstrated that growth performances as represented by body weight growth, weight gain, feed conversion and feed intake were high in groups fed diet containing ١٠% DDGS than control group. Serum content of minerals under investigation demonstrated significant decrease in Ca level in group B, C and D, as compared to control group. However, the P level in serum of groups fed ١٠% DDGS containing diet was significantly increased than control group. Histopathological examination of the intestine showed that the length of the intestinal velli were comparatively high in group B than other groups followed by group C than group D and finally group A, which indicated that there was proportional relation between the period of DDGS feeding and length of the velli. However, the liver of all groups was normal.

It could be conclude from the previous results that the addition of DDGS to the broiler diets is safe, besides it has two considerations, the first that it has good quality than soya and corn because it does not have any anti-nutritional factors assay and higher available P, than corn the second it has an economical importance.

قسم الفسيولوجيا

الاستجابة الفسيولوجية والمناعية لبعض منشطات النمو في الدواجن

PHYSIOLOGICAL AND IMMUNOLOGICAL RESPONSE

TO SOME GROWTH PROMOTERS IN POULTRY

By

Eman Tawfeek El-Sokary

Abstract

Two hundred and ten one day old chicks (50% male and 50% were kindly supplied from Ismailia Misr Company. Birds were housed in separate units (floor reared), under similar managemental and hygienic conditions. Chicks were weighted and randomly allotted into 7 groups 20 chicks for each. Diet and water were provided ad-libitum. The first group was the control. The second and the third groups received low (0.325 g/L) and high (0.65 g/L) doses of gibberlin. The fourth and fifth groups received Reomin in the diets as follows 1 gm/kg of ration (low dose) and 2 g/kg as high dose. The sixth and seventh groups received digestamine the diets as 6 g/kg (low dose) and 12 g/kg diets as high dose. At 7th day of age all chicks were vaccinated subcutaneously by killed influenza vaccine. Body weight, feed consumption and mortality rate were recorded. Body weight gain, feed conversion, feed intake were also calculated. The chicks vaccinated by booster dose of killed influence vaccine at 4th week of age. Blood samples were aseptically collected by cardiac puncture after 15 days post primary vaccination and 15 days after booster vaccination against avian influenza in heparinized tubes for estimation of T. lymphocyte proliferation assay. Another part of blood collected in tubes containing EDTA and immediately assessed for total and differential leukocytic count. A part of collected blood was centrifuged and stored at -20°C for analysis of serum, total protein, albumin, aspartate amino transaminase (AST). Alanine, amino transminase (ALT), alkaline phosphates, (ALP), calcium, phosphorus, creatinine and uric acid. Tissue specimens were collected 15 days after booster vaccination against avian influenza 7 and stored at -70°C in liquid nitrogen until further extraction of RNA and estimation of inter leukins, (IL-2) by RT-PCR. At the end of experiment, tissue specimens were collected from duodenum, jejunum, ileum, kidney, liver, spleen for histopathological examination. At the end of fattening period there were significant increase in weight grain in all the groups received the growth promoters as compared to the control group. significant improvement in feed conversion in groups supplemented with growth promoters. The growth promoters resulted in high stimulation indices of IL-2 and maintain its level higher after vaccination against avian influenza vaccine. The growth promoters increase the activity of lymphocyte increase the number of total leukocytic count, reduces the loss of bursal lymphocyte and improve cell mediated

immunity to Avian influenza vaccine. GA_r has androgenic like action on the weight gain and has positive effect on the immunity and is safe as growth promoter by the dosage recommended in the present study. The histological results confirm that, supplying the diet of chickens with Roemin, Gibbrillin and Digestamin growth promoters enhance the cell-mediated and humoral immunity and improve digestion and absorption .

قسم البكتريولوجيا الطرق الحديثة في تشخيص الميكوبلازما في بدارى التسمين

RECENT TECHNIQUES FOR DIAGNOSIS OF MYCOPLASMA IN BROILER CHICKENS

By

Mohamed Mohamed EL. Siefy

Abstract

This study comprised the examination of One thousand , three hundreds and fifty (١٣٥٠) samples including lungs (٣٥٠), tracheae (٣٥٠), air sacs (٣٥٠) beside oropharyngeal swabs (١٥٠) and synovial fluid swabs (١٥٠) from ٣٥٠ brioler chickens showing respiratory manifestations These samples were examined for Mycolasma gallisepticum and Mycolasma synoviae.

Total recovery rate of Mycoplasmas was ١٩.٧% (٢٦٦ out of ١٣٥٠) and the highest percentage of isolated Mycoplasmas were at the age ranged from ٣٥-٤٢ days ١٠٦ out of ٣٨٠ (٢٧.٩%), followed by the age ranged from ٢٥-٣٥ days were ٨١ out of ٣٨٠ (٢١.٣%), then the age ranged from ١٥-٢٥ days were ٤٧ out of ٢٩٥ (١٦%) and the least percentage was at the age ranged from ٧-١٥ days were ٣٢ out of ٢٩٥ (١٠.٨%).

The recovery rate of Mycoplasma from air sacs was ١١١ out of ٣٥٠ (٣١.٧%), from tracheae ٦٦ out of ٣٥٠ (١٨.٨%), from Oropharyngeal swabs ٢٣ out of ١٥٠ (١٥.٣%), from synovial swabs ٢١ out of ١٥٠ (١٤%) and from lungs was ٣٦ out of ٣٥٠ (١٠.٣%).

Biochemical characterization and serological identification results indicated that from ٢٦٦ Mycoplasma isolates *M. gallisepticum* and *M. pullorum* were ١٧ and ٨٩ isolates (٦.٤ and ٣٣.٤%) respectively. While *M. synoviae* ٣ isolates (١.١%) and *M. gallinarium* was ١٥٧ isolates (٥٩%).

SPA Results show that from ٣٥٠ serum samples examined by serum plate agglutination test ١٩٨ (٥٦.٦%) were positive for *M. gallisepticum* antibodies and ١٤٧ (٤٢%) were positive for *M. synoviae* antibodies.

ELISA results of ٣٥٠ serum samples ١٧٢ serum samples were positive (٤٩.١ %), ٢٢ were suspected (٦.٣%) and ١٥٦ were negative (٤٤.٦%) for *M. gallisepticum* whereas ١٢٣ serum samples were positive (٣٥ %), ٣٣ were suspected (٩.٥%) and ١٩٤ were negative (٥٥.٥%) for *M. synoviae*

Six field isolates were tested by polymerase chain reaction (PCR) and compared with *M. gallisepticum* reference strains (F and R strains). All the examined field isolates were identified as *M. gallisepticum* (gave a characteristic ١٨٥bp fragment) also three field isolates were tested by polymerase chain reaction (PCR) and compared

with *M. synoviae* reference strain (WVU١٨٥٣ strain). All the examined field isolates were identified as *M. synoviae*(gave a characteristic ١١٠٠bp fragment).

Six field isolates were tested by random amplified polymorphic DNA (RAPD) and compared with *M. gallisepticum* reference strains (F and R strains). All the examined field isolates were identified as *M.gallisepticum* also three field isolates were tested by random amplified polymorphic DNA (RAPD) and compared with *M. synoviae* reference strain (WVU١٨٥٣ strain). All the examined field isolates were identified as *M. synoviae* Generally, high similarity of DNA banding patterns of *MG* field isolates were detected with the F and R reference strains also high similarity of DNA banding patterns of *MS* field isolates were detected with WVU١٨٥٣ reference strain.

Antimicrobial sensitivity pattern was applied on ٢٠ *Mycoplasma* isolates (١٧ *M. gallisepticum* and ٣ *M. synoviae*) it was clear that the most effective antibiotics against ٢٠ of isolated Mycoplasmas were Enrofloxacin and Oxytetracycline with activity percentage of ٨٨.٢%, ٨٢.٣% for *M. gallisepticum* and ١٠٠ % for *M. synoviae* respectively followed by Tiamulin ٧٦.٥% for *M. gallisepticum* and ٦٦.٧ % for *M. synoviae* whereas resistant for Erythromycine and Amoxicillin (١١.٧%, ٥.٩ % for *M. gallisepticum* and ٣٣.٣ %, ٠% for *M. synoviae*) respectively.

**التمييز بين سموم الفوسفوليبيز-د من عترات كوريتي السل الكاذب
المعزولة
من الجاموس والأغنام**

difference between exotoxin phospholipase-d of corynebacterium pseudotuberculosis
strains isolated from buffaloes and sheep

by

Abeer El-Refaye Abd El-Ghafar

Abstract

C. pseudotuberculosis causes caseous lymphadenitis which is chronic disease in sheep, at the same time causes oedematous skin disease in buffaloes which is acute disease. In the present study, ٢٣ strains of *C. pseudotuberculosis* were isolated from ٢٠٠ samples collected from clinical cases of sheep infected with CLA aged from ١-٣ years old and buffaloes infected with OSD aged from ١-٤ years old.

All strains were identified by microscopical, colonial, morphological and biochemical characters, all buffalo isolates were positive for nitrate reduction while sheep isolates were negative for nitrate reduction.

PCR technique could be used as a rapid diagnosis of caseous lymphadenitis and oedematous skin disease caused by *C. pseudotuberculosis* in laboratories by using specific primers for identification. A product with the expected size (٩٣٠ bp) was successively obtained with ٤ isolates (٢ from sheep and ٢ from buffalo) with no size differences.

Antigenic relationship between culture filtrates (PLD) of sheep and buffalo originated strains were detected by using SDS-PAGE analysis and it was found that both buffalo and sheep originated strains harboured band of ٣١-٣٩ kDa which indicates the high degree of similarity among PLD of *C. pseudotuberculosis* from sheep and buffaloes.

الميكروب القولوني اللاصق والنافذ المرتبط بحالات التهاب الضرع المستديم في الماشية

ADHERENT AND INVASIVE *E. COLI* ASSOCIATED WITH PERSISTENT
BOVINE MASTITIS

By

Mostafa Mohamed Abd El-Rehem Eraqi

Abstract

Out of ٤٥٠ lactating cows examined according to clinical observation and California mastitis test, ٤٠.٢% were clinical mastitis, *E. coli* was the most common cause of clinical mastitis ٣١.٤% of all isolates. recurrent *E. coli* mastitis occurred in ٨.٩% in five quarters of five cows experienced more than cases of clinical mastitis. The most prevalent serogroups recovered from mastitic cases were O٥٥, O١١١, O١١٩ and O١٥٧, which give positive results with virulence factors including K٩٩, *eaeA* gene, Congo red binding activity and adherence and invasive properties to Hep٢-cell, while other serogroups were O١٢٤, O١١٤, O٢٦ and O٤٤ which give negative results with virulence factors.

Also antibiotic susceptibility tests of *E. coli* isolates to ١١ antimicrobial agents to be of value as guide in the selection of antimicrobial agents to be employed for in vivo application.

حماية التربية النوعية

قسم التربية الفنية
تصميم مشغولات معدنية وحلي مستوحاة من الأشكال المختلفة
لأمراض النبات

Designing Of Metal Artworks And Jewelry Inspired From Different Forms Of Plant Diseases

By
Naglaa Hosny El Ashraf Ibrahim

Abstract

The present study aims at finding formative solutions that integrate different materials, methods and techniques to produce metal artworks and jewelry inspired from different plant diseases and the use of them as an innovative trend in the field of art education which is explained in the following chapters:

قسم الملابس والنسيج
تأثير بعض التراكيب البنائية النسجية على نفاذية الهواء الديناميكية
وتأثيرها على الخواص الوظيفية وخواص الراحة لأقمشة الملابس

Effect of Some Woven Construal Structure on Dynamic Air Permeability and Its
Effect on

the Functional and Comfort Properties of Clothing Fabrics

by

Shaimaa Mohammed Ahmed Shatarah

Abstract

The main aim of this research to determine the most appropriate (weave structures, the type of raw material, the spinning type, twist exponent). As they influence the quality and the economics of the clothing product. Fabrics have been produced by differences in the specifications of multiple warp threads fixed for all fabrics produced under study (١٠٠% cotton yarns ٦٠ / ٢ cotton) Samples weaved in spinning and weaving department of Egypt company at El- Mahla El- Kobra .

I Implementation a simplified model of proposed device to measure the dynamic air permeability of fabrics .

- fabrics Has been produced with the following variables: Difference in the kind of material. Difference in structures weaves.
- Difference in twist factor of weft thread.
- Difference in method of yarn spinning.

- **The study reached to the following results:** The product fabric of blended (cotton / polyester) by crepe structure weave and without twist is the best for all functional properties of fabrics produced under the research and the ideal area of ١٨٠٠٣.٢٩, while the product fabric from fabric ١٠٠% cotton and plain ١/١ structure weave and twist exponent (٤.٦) with ring spinning is the least for all functional properties of fabrics produced under the research and with the ideal area ١٢٠٠٨.٧٣.

تحقيق أفضل المعايير القياسية لخاصية صلابة القص والتنبؤ بقابلية حياكة الأقمشة في صناعة الملابس الجاهزة

Achieving the Best Standards of Shearing Rigidity Property and Predicting Fabrics
Sewability in Ready-Made Apparel Industry

By

Ghada Abd El kader El sayed Omar

Abstract

The main goal of this research is to determine the most appropriate type of cotton weft yarns, raw material of weft yarns and the most suitable weave structures which in order to achieving high performance efficiency and sewability for the fabrics produced under the study, so fabrics have been produced with multiple differences in the specifications at a time when the specifications for the warp yarns fixed for all produced fabrics (١٠٠% cotton yarns, ٦٠/٢ ring). Samples were weaved in the spinning and weaving department at misr company for spinning and weaving in El-Mahala El-Kobra.

Fabrics have been produced with the following variables :

- Type of spinning of cotton weft yarns.
- Type of the raw material of weft yarns.
- Weave structures.

The study reached the following results :

- There is a possibility to predict the sewability by using some traditional testing methods.
- The best fabrics which produced under the study at all according the whole properties of sewability is the sample of honeycomb weave structure with ١٠٠% viscose weft yarns.
- The best fabrics which produced under the study at all according the whole properties of performance is the sample of braided weave structure with ١٠٠% viscose weft yarns.

قسم المصاكن
الشكل الجمالي لبلورات الثلج كمدخل تصميمي للمشغولات المعدنية والحلي

Aesthetic form of Snow Crystals Input Design
of Artifacts and Metal Jewelry

by

Eman Mostafa Ibrahim Rehan

Abstract

This study aims to reach new design solutions and design of the entrances of metalwork and jewelry through the aesthetic form of ice crystals in addition to the study and analysis of some of the different forms of ice crystals to the definition of the aesthetic and structural underpinnings of its constituent through a series of chapters, as follows:

حمية الآداب

قسم الجغرافيا
الدوائر الانتخابية بمحافظة الغربية "دراسة تطبيقية في الجغرافيا
السياسية" باستخدام نظم المعلومات الجغرافية (GIS)

The Constituencies in Gharbiya Governorate
Using Geographical Information Systems (GIS)

By

Ahmed Mohamed Mohamed Abo Agiza

Abstract

The study consists of five chapters in addition to the introduction that contains the general geographic features of the study region and the general features of the election systems in Egypt.

The first chapter is handling the placement organization of the constituencies in Gharbia governorate, through studying the development of dividing the constituencies in the governorate within three elections stages in the Egyptian election system. Besides, studying the geographic distribution of the constituencies in the governorate as for the space, administrative component, the committees, and election locations.

Second Chapter, The Demographic Organization of the Constituencies in Gharbiya Governorate, studied the development of the electors' numbers on the level of the governorate and the constituencies. Rather than studying the geographic distribution of the electors in the constituencies as for the percentage of the record, election density, and their distribution on the committees and elections' locations.

Third Chapter is about the affecting factors on the division of the constituencies in Gharbiya governorate, which are divided into political factors, represented in the legislation authority, election laws and the responsible authority of defining the constituencies . Furthermore, the geographical factors, represented in population size, electors, parliament representative percentages, administrative division, unity of benefits, geographical nearness, integration of constituency and easiness and efficiency of transportation network.

The Fourth Chapter contains the practical study of the people's council's elections' ٢٠٠٥, which mentioned the general features of the people's council's elections' ٢٠٠٥ on the level of the republic, studying the elections of the people's council ٢٠٠٥ in the constituencies of Gharbia governorate, the candidates, their classifications, electoral competition, sharing in the voting, the results of the elections and their political classification. In addition to studying the case of the constituency of al-Mahala al-Kubra, the electoral organization, the demographic features of the electors, political participation in the constituency, besides the political choice and voting motivators of the candidates.

Chapter five is about the geographical division of the constituencies in the government, through evaluating the limits, dividing the constituencies and studying the geographical favoritism forms there. Besides, trying to reform and plan the constituencies in the government by suggesting the best suitable election system, and another suggestion to edit and divide the constituencies in the government.

كهربة الريف بمركز المنصورة - محافظة الدقهلية
دراسة في الجغرافيا الاقتصادية باستخدام نظم المعلومات الجغرافية
(GIS)

A Study in Economic Geography Using geographical Information System "GIS"

By

Mohamed Ezzat Mohamed El- Sheikh

Abstract

The topic study within the geography of energy, one of branches of economic geography, the most recent comparison, life is close to half a century, and which have not received the attention paid by geographers to other branches of economic geography, especially in terms of methodology.

A Thesis consists of six chapters preceded by an introduction and followed by a conclusion:

Submitted and dealt with the geographical features of the study area, offering the first chapter of the administrative development and the stages of the introduction of electricity Center, and all the features of the stage, and Chapter II was taken up the development of network components and distribution of electricity the study area, and the factors affecting the status, as well as to lose electrical network.

The third chapter of the evolution of electricity consumption and the distribution of consumption (sectoral, and geographical and sectoral / geographical), and monthly consumption of electricity Center, has been linked to the numbers of participants, have also been examining the average per capita electricity, as the sale of electricity tariff study area of study. In the fourth quarter was the general study of the geographic features and components of electrical system in some village center sample study. In the fifth chapter was to examine the economic and social development of rural electricity Center. Turning to Chapter VI of the problems of electrical system status, and the future of electrical system status, and then study alternative energy sources.

And ended the letter seal contains the most important findings that have emerged in the study, was developed a set of recommendations in the light, the study also finished bottom of the list of the most important sources and references used during the message, and the Group supplements are used to study