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**IMPACT OF LEAF/BUNCH RATIO AND TIME OF APPLICATION ON YIELD
AND FRUIT QUALITY OF BARHI DATE PALM TREES (PHOENIX
DACTYLIFERA L.) UNDER SAUDI ARABIAN CONDITIONS**

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ABSTRACT



Our research was conducted at the Agricultural Experimental and Research Station (Deyrab), College of Food and Agricultural Sciences, King Saud University, Riyadh, Saudi Arabia in the 2011 and 2012 seasons. Twenty-one date palm females were selected, introduced into a randomized complete block design (RCBD), and subjected to three pruning treatments concerning the leaf/bunch ratio, whereas eight bunches were left on each experimental tree. The tested treatments, after two applications (after fruit harvesting and fruit setting), were: T1¹/₈ leaves/bunch, first week in November, T2²/₁₀ leaves/bunch, first week in November, T3³/₁₂ leaves/bunch, first week in November, T4⁴/₈ leaves/bunch, first week in May, T5⁵/₁₀ leaves/bunch, first week in May, T6⁶/₁₂ leaves/bunch, first week in May, and T7⁷/₄control, without pruning. Control pruning treatment resulted in clear reduction in the yield/tree, whereas T5 (10 leaves/bunch, first week in May) gave the highest yield/tree. T5 led in most physical and chemical properties in both seasons. Fruits of T5 and T6 treatments revealed significant increments in fruit moisture percentage, as compared with the control. Generally, yield and fruit quality of Barhi date palm cultivar growing in Riyadh, Saudi Arabia, had improved leaf/bunch ratios and it was found that 10 leaves/bunch was sufficient to obtain a suitable yield of good quality fruits in the first week of