EFFECT OF POTASSIUM FERTILIZATION AND BUNCH THINNING ON THE YIELD AND THE ANNUAL OF LEAVES AND FLOWER CLUSTERS OF ZAHGLOUL DATE PALMS

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This study was carried out during two successive years of 1998 and 1999, in Alexandria, Egypt, to study effect of four levels of potassium fertilizer and three methods of fruit thinning on yield, fruit quality of "Zaghloul" date palms. This experiment was designed as randomized complete blocks with four replicates. The study included four levels of potassium sulphate (48% K_2O) and three methods of thinning. The potassium sulphate levels were: k_o (control); K_1, 1.0:K_2.2.0 and K_3, 3.0 (kg K_2SO_4 per palm). In addition, the thinning treatments were: th_0, without fruit thinning; Th_1, early fruit thinning: the tips of all strands were cut back enough to remove about one third of the total number of fruits at time of fruit set and Th_2, late fruit thinning: the entire strands were cut from the center of all bunches enough to remove about one-third of the total number of fruits 6 weeks after fruit set. Yield/palm were greatly increased with the potassium fertilization as compared with the control in both 1998 and 1999 seasons. While, they were markedly decreased with the early and late fruit thinning in both seasons. The potassium fertilization markedly increased the new leaves and flower clusters / palm year in comparison with the control in both seasons. Both new leaves and flower cluster were not effected by both early and late thinning in two seasons.