

EFFECT OF FRUIT THINNING AND POTASSIUM FERTILIZATION ON “SEEWY” DATE PALMS GROWN AT SIWA OASIS

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The present study was carried out during 1998 and 1999 growing seasons in a private orchard at Siwa Oasis, Matrouh Governorate with the aim of investigating the combined effects of fruit thinning and K-fertilization on vegetative growth, number of bunches/palm, yield, fruit quality and pinnae mineral contents of 20 years old “Seewy” date palms. Generally, both of fruit thinning and K-fertilization significantly increased the vegetative growth; number of new growing leaves and length and area of pinnae. However, the pinnae width was not affected significantly by the treatments used. Leaf length was not affected by fruit thinning but increased significantly by the K-fertilization. The number of bunch per palm increased significantly by fruit thinning and K-fertilization. The results indicated that fruit thinning markedly decreased the yield but the potassium fertilizer increased the yield. The data also indicated an improvement of fruit physical properties i.e., fruit weight, dimensions and flesh weight % by using fruit thinning and K-fertilization. The fruit chemical properties i.e., T.S.S., pH and sugar (total, reducing, non reducing) increased and Tannins content decreased by fruit thinning and K-fertilization. Leaf N and K contents were increased while Ca, Mg, and Na contents were not affected by fruit thinning. On the other hand, leaf contents of N, K, and Mg increased but Na decreased by K-fertilization. According to the above mentioned results, it is recommended to fertilize “Seewy” date palm with 750 g K₂O (1500 g potassium sulfate/palm/year) at 25% fruit thinning under the condition of the experimental orchard for improving their growth, yield, and fruit quality.