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Studies on pruning, fruit thinning and k-spraying and their effects on yield and fruit quality of peach trees

By

Sameh Kamel Ibrahim Okba

ABSTRACT

Five years old of peach trees cv. Dessert Red budded on Nemaguard rootstock and grown on sandy soil at commercial orchard in El-Nubaria region , El-Behira Governorate, Egypt were chosen for this investigation during 2013,2014 and 2015 seasons. This study included two separate experiments, the aim of the preliminary experiment was to evaluate the behavior of studied cultivar, while in the second experiment, the goal was to study the effect of some agricultural treatments involving thinning out pruning , fruit thinning and foliar application of potassium silicate and super grow compounds on yield and fruit quality and the relationship between some nutrient balance and yield of " Dessert Red "peach trees. Beside, test the influence of used treatments on two physiological disorder, double fruit and deep suture %. Also, economic evaluation of different treatments was done. Depending on the obtained results in this study, it could be concluded that application of thinning out pruning 35% , fruit thinning by leaving 15 cm between fruits on one-year old shoot at 20 days after full bloom and foliar application of potassium silicate at 0.1% and super grow compound at 0.3% which sprayed separately five times (T8) ,was most profitable treatment for peach trees grown under conditions of this investigation . This treatment gave the best vegetative growth, yield, fruit quality, higher crop value with high net income /fed. from " Dessert Red "peach trees, in addition, reduced the percentage of double fruit and deep suture by more than 50% in both seasons, therefore, this study recommends this treatment for " Dessert Red " peach growers.