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EFFECT OF PRUNING SEVERITY ON BUD BEHAVIOR, YIELD AND FRUIT QUALITY OF FLORDA PRINCE PEACH TREES.

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ABSTRACT

A field experiment was conducted during the two successive seasons of 2012/2013 and 2013/2014 on five years old Florida Prince peach trees to study the effect of pruning severity on bud behavior, yield and fruit quality. These trees were planted at five meters apart, grown in a good drainage soil under drip irrigation system in a commercial orchard located at Abou Ghaleb region, Giza, Egypt. Pruning severity treatments were heavy pruning (leaving 150 sprouts per tree), medium pruning (leaving 250 sprouts per tree) and light pruning (leaving 350 sprouts per tree).

All pruning severity treatments recorded significant increase in flowering buds percentage in both seasons of study. Leaving (250) sprouts per tree was the best pruning treatment followed by 150 and 350 sprouts per tree, respectively. Both leaving (350) and (150) sprouts per tree treatments recorded the highest values of vegetative buds, while leaving (250) sprouts per tree treatment was the lowest. The light pruning trees (leaving 350 sprouts per tree) recorded the highest dormant buds percentage during both seasons of study. The heaviest fruit weight and total yield per tree were produced from trees treated with medium pruning severity (250) sprouts followed by (150) and (350) sprouts per tree respectively in the two seasons of study. The medium severity pruning treatment (250) sprouts per tree led to an improvement in all physical quality parameters than other treatments. The fruit physical characteristics such as volume, length and diameter were the highest in the medium severity pruning trees treatment without any significant difference in fruit volume among light and heavy pruning severity treatments during both seasons of study.

Key words: bud behavior, Florida Prince, peach, pruning severity, fruit quality, yield.