

## **Possibility of Pineapple (*Ananas comosus*) Crown Utilization as Alternative Propagule for Commercial Cultivation**

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### **Abstract**

Pineapple (*Ananas comosus*) crown is not used as a propagule for commercial cultivation as it takes long duration to fruiting. Large number of pineapple crowns is disposed at harvesting as waste material without any usage. Therefore, this research was undertaken to identify the possibility of using pineapple crown for commercial cultivation as an alternative propagule. The research was carried out at Fruit Research & Development Institute, Horana during 2016-2018. Three experiments were carried out to fulfill the specific objectives in RCBD with three replicates. First experiment was carried out to identify the performance of different suckers and crown with foliar fertilizer (0.24mL/100mL H<sub>2</sub>O). While the second experiment was undertaken to identify the required foliar fertilizer levels for crown using three different levels of urea and ammonium sulfate (0.2g,0.5g,&0.3g in 100ml H<sub>2</sub>O). Third experiment was carried out to identify the effect of crown size ie. small 100-150g, medium 150-250g, large 250-350g on fruit quality. Data were analyzed by SAS statistical software and mean separation was done by using Duncan Multiple Range Test. Finally the cost of cultivation was estimated in crown with foliar fertilizer and conventional propagation method using root/axil suckers. Based on the study there was no significant difference in fruit weight, crown weight, fruit weight without crown, brix value, titratable acidity and pH in both studies which crown used as propagule and conventional propagule methods. The highest root length was observed in ammonium sulfate treatment (19.633cm) and no significant differences were observed in length of leaves, wet weight of leaves, dry weight of leaves number of leaves. There was no significant difference in fruit weight, crown weight, brix value, titratable acidity, pH in study with different crown sizes. Cost reduction was observed in crown with foliar fertilizer method as planting material cost of crown is zero and it is considered as a waste material. Available pineapple crown could be grown as an alternative propagule for commercial cultivation with foliar fertilizer.

**Keywords:** Foliar fertilizer, Pineapple crown, Pineapple suckers, Yield

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