Sulfate ammonium fertilizer on the off-season production of snake fruit (salacca Sumatrana becc.)

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Abstrak

Salacca sumatrana(Becc.), known locally as the Sidimpuan snakefruit, is one of the specialties prime local commodities of Padang sidimpuan City in Sumatra. The fruit is known for its sweet, sour and astring ent taste which differentiates it from Pondoh and Balinese snake fruits. Recently,the snake fruit farmers have noticed a continuous decrease in production resulting from the failure in its fruit-setting, particularly during the off-season. The use of fertilization and drip irrigation in the off-season had been currently explored as part of the solution. Hence, this research investigates the use of thesemethodsin over coming the fruit setting failure and guaranteeing sub sequent production of Sidimpuan snake fruit all-year round. Specifically, this study aimed to determine the optimal dosage of ammonium sulfate fertilizer and drip irrigation for fruit setting during the off-season. This research used a split-plot design with the main plot for drip irrigation and the subplot for ammonium sulfate. The observed parameters included the number of flower and fruit bunches, fruit set percentage and a nutrient analysis of the leaves.Drip irrigation significantly affected the fruit setting percentage and the number of harvested fruit bunches. The best treatment combination was at 400 g ammonium sulfate fertilizer perplant and drip irrigation of 3,000 mL/plant. The fertilization period in July-September produced an offseason harvest that was comparable to the fruit set percentage(10.76% difference) and number of fruit bunches (25.65% difference) that were observed in the April-June fertilization for the on-season harvest. This indicated that applying ammonium sulfate with drip irrigation could overcome fruit set failure in Sidimpuan snake fruit, particularly, during the off-season.