

Fruit set in Various Multipliers to Dilute the Anther of Sugar apple and Atemoya

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Summary

Sugar Apple and Atemoya are popular among Orientals with their sweetness in fruit. Yet in recent years, the production has dropped, quality decreased, and agricultural productivity and competence weakened. The practice of hand-cross-pollination may increase productivity and commercial value of the fruits. To reduce labor and cost of anther-collection, overcome the problem due to bee's gathering pollen, and enhance operation efficiency, the operation of pollination may be performed with multipliers to dilute the pollen by 1 and 5 times before hand-pollination. The multipliers include PVC powder, Talc powder, flour, Tapioca starch, and rice flours. This improves fruit set rate and attain satisfactory fruit set. Yet milk powder leads to lower fruit set rate. The influence of multiplier type and quantity on fruit development and yield rate was also investigated. Applied with pollen doubled with various multipliers, both Sugar Apple and Atemoya demonstrated satisfactory fruit development with only a very limited drop fruit rate. Exceptions were those with milk powder and potato powder that suffer drop fruit and smaller fruit volume. This result was similar to that of control group (ck). In addition, fruits applied with these multipliers that increased pollen quantity by 5 times achieved acceptable fruit growth with commercial value in the industry. However, when compared with hand-pollination and control group (ck), fruits grew by this approach were smaller in width.

Key words: Sugar apple, Atemoya, Anther, Multipliers, Pollination, Set fruit

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