

Research on Health Management of Sugar Apple and Atemoya

Shu-Jen Tsai¹, Po-Song Lu², Shu-Wen Chiang³, Chi-Chung Chang⁴,
Chun-Chi Lin⁵, and Yu-Tzu Hsu⁵

Abstract

The treatments of remaining fruit quantities of sugar apple in summer and in winter from the trunk circumference multiplied fruits 1.0 time, the remaining fruit quantities of atemoya from the trunk circumference multiplied fruits 1.0 time to 1.2 times. In the case of low soil organic matter content on sugar apple orchard that applied the same amount of chemical fertilizer, a single plant was administered 10 kg organic fertilizer would be increased production 18.9%, up to 20 kg organic fertilizer would be increased 29.3%. We surveyed the diseases on the fruits of *Annona* spp. in Taitung, the anthracnose (*Colletotrichum gloeosporioides*) was the most common. The pathogen of anthracnose showed latent infection, and the efficacy tests of each pesticide were different from each isolate. According to approval and registration of eleven fungicides were tested *in vitro*, the best were 50% Prochloraz-manganese WP to inhibit the mycelia growth and spore germination. Passionvine mealybug (*Planococcus minor*) was the most common species, the strategy of mealybugs control should be aimed to reduce the primary population density and fecundity of mealybugs. Pesticide residues monitoring reflected the fungicide “Carbendazim” was the most, followed by “Dithiocarbamates”; the insecticide “Chlorpyrifos” was the most, followed by “Imidacloprid”, “Acetamiprid”, and “Methomyl”; the acaricide “Pyridaben” was the most. The unqualified cases of pesticide residues showed the major reason was illegal use of non-approved insecticide or miticide.

Keywords: Sugar apple, Atemoya, Remaining fruit quantity, Anthracnose, Mealybug

¹ Associate Researcher and Chief and ⁴ Associate Researcher and ⁵ Assistant Researcher of Taitung DARES, COA.

² Researcher and Chief and ³ Associate Researcher of Banchiu Branch Station of Taitung DARES, COA.