Studies on Fruit Dropping of Atemoya in Spring ¹

Der-chuan Su²

Summary

Fruit dropping of atemoya in spring was not only simply fruit drop but always companion with fruit crack. Vascular bundles that connected to the stem end and small fruits had shown visible brown color before crack.

Fruits dropped seriously if the thinning work was not really to the suitable degree. There were some relationships with fruit dropping and the higher humidity, temperature (air or soil) before 4-7 days of the dropping. Fertilization by urea or irrigation treatments a month before harvesting caused more fruit dropping than that of the check.

It is supposed that the fruit dropping was affected by high temperature stress and did something with plant hormone ethylene. The nitrogen effects might be due to increase the fresh size of small fruits and then cause the peel crack and small fruit stems broken, and thus was the reason why the dropping fruits without their aggregated fruit stems.

There are several suggestion for a farmer to reduce the fruit dropping risks as followings that one should thin a tree to below 60 fruits, and it will be better to do forcing production in higher and cooler latitude place, also, be very careful to do nitrogen fertilizer and irrigation application a month before harvest.

Key Words: Atemoya, Fruit Dropping, Stress

¹This experiment was financial supported only by TTDARES, not a part of Agricultural Science Programs of CNS.

² Associate research fellow, Tai-Tung District Agricultural Research and Extension Station.