

Area-Wide Control of the Oriental Fruit Fly (*Bactrocera dorsalis* (Hendel)) on Sugar apple (*Annona squamosa*) -A Case Study at Taimali in Taitung

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Abstract

There are 603 hectares cultivated area of sugar apple (*Annona squamosa*) grown at Taimali Township, Taitung county, and its very important for local agricultural industry, however, the threat from the oriental fruit fly(*Bactrocera dorsalis* (Hendel), OFF) is a continuous problem. To effectively control the OFF, Taitung District Agricultural Research and Extension Station promoted the area-wide control of the OFF since 2010 at Taimali Township. With the corporation of local growers at Taimali Township, an area-wide OFF control program of 500 hectares was launched in 2010. Measures included geographic and agricultural information gathering, OFF population monitoring, male annihilation by methyl eugenol bait. After implemented the control program for 4 years, the obtained date indicated that there were two high OFF density peaks annually. The first peak occurred at June, second peak was from September to October. The OFF density in control area was always lower than outskirts, and the OFF density had a tendency of decreasing year by year. The results of area-wide OFF control in sugar apple plantation at Taimali in 2014, the density of OFF were 55.6% decreased than 2010, and through the progressive cooperation with farmer's groups could reduce the OFF density effectively.

Key words : *Annona squamosa*, *Bactrocera dorsalis* (Hendel), Area-wide control.

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