

Area-Wide Control of the Oriental Fruit Fly (*Bactrocera dorsalis* (Hendel)) on Citrus-A Case Study at Taiyuan Valley in Taitung

Yu-Tzu Hsu¹, Yung-Cheng Chou² and Tze-Chung Huang³

Abstract

About 400 ha. of citrus were grown at Taiyuan valley, Donghe Township, in Taitung, it was an important crop for local economy, however, the threat from the oriental fruit fly (*Bactrocera dorsalis* (Hendel)) is a constant problem. To effectively control the oriental fruit fly, Taitung District Agricultural Improvement Station promoted the area-wide control of the oriental fruit fly in 2010 in Taiyuan valley, Donghe Township. With the corporation of growers from Donghe Township, an area-wide oriental fruit fly control program was launched in 2010. Measures included geographic and agricultural information gathering, oriental fruit fly population monitoring, male annihilation by methyl eugenol bait and protein food bait to kill and lure female oriental fruit fly were implemented. In this study, 8.8 fruit flies / trap / day was detected at the beginning of the control program on January 2010, but the population density of fruit fly decreased thereafter, and was dropped to 3.3 / trap / day by harvest on March 2011; the highest peak was 7.2 fruit flies / trap / day in October, then continue to maintain a low-density status. By sampling the Valencia from three orchards, 8.43% damage rate was obtained.

Key words: Citrus, Oriental fruit fly (*Bactrocera dorsalis* (Hendel)), Area-wide control.

^{1,2}Assistant Researcher and Researcher of Taitung DARES, COA.

³Director of Kaohsiung DARES, COA.