Biological Controls Coming to Waimea

As predicted, the melon fly population from the wild and backyard vegetation has come home to haunt the growers in Kamuela. We were experiencing an increase in population that was spilling over into the farm lots, and the inclement weather is reducing the effectiveness of the GF120 sprays. With a total block-monitoring (BM) fly catch of 612 on Nov. 21st, most of the locations contained some fly catch. The average fly catch not including one site, was 0.05 flies/trap/day, but that one location was 63 times higher than the average. It threw the average up to 0.32 f/t/d, and was contributing to the buildup of flies in the east grid (Figure 3). We would like the growers in that area to be especially vigilant now, since our efforts to control those non-farm areas are restricted by weather, and the transition to biological control efforts. Remember that the flies are coming from the infested fruit. Get rid of your infested fruit, and you will have fewer flies to combat.

It’s a good time to discuss the changes in the Kamuela melon fly control program. As was indicated by the previous newsletter, this program will require that the suppression of fruit flies transition to the growers responsibility, so that it will be sustainable after the USDA funding period ends. In an effort to bring all of our technology to bear on the target sites, we are beginning releases of biological control agents. This week approximately 150,000 parasitoids (right) of the melon fly will be released, and that will continue weekly for the remainder of the program. Beginning in 2002, 100,000 sterile male melon flies will be shipped to Waimea and released the following week. Subsequently, this Sterile Insect Technology will continue (as capacity and funds allow) to expand to a level necessary to reduce wild female flies breeding.

Up to now, much of the effort of the USDA staff has been concentrated on the detections and chemical destruction of melon flies. Now their time will be diverted to the biological techniques. We will continue to monitor the success of the program through fruit collection and evaluation of egg sterility. The growers will need to take over monitoring traps their own traps. We will maintain the grid and 100 of BM traps. However, the remainder of traps will be Chang traps (right), which cannot be monitored and are recharged once in 2-3 months. If a grower wishes to have the data from the BM traps, at the grower’s request, we will leave the traps for the grower to check. If a grower wishes to place additional traps of either type, we will provide the traps and lure, but the grower will be responsible to monitor and service the traps. In exchange for the supplies, we would request that the grower provide us with the trap counts he collects. In Taiwan, their fruit fly program is based on trap data that is collected by the grower cooperatives. This information was used to allocate the 42 tons of male lure that reduced the Oriental fruit fly population by 75%.

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