With the huge rainfall in mid October, Kula’s bare ground and dried grasses have turned into lush vegetation in and around the farming areas. However, the biggest difference this year is that the melon fruit flies are at its lowest ever 1.39 flies/trap/day (slightly higher excluding traps in the upper zone). Growers all agree that when pastures and surrounding areas become green, melon fly activity in roosting host plant areas increase which results in more fruit fly damage. This year, growers quickly noticed an increase in melon fly activity and began to spray GF-120 on a consistent weekly schedule. Area wide crew workers have noticed that fields are plowed soon after harvest to further reduce fruit fly buildup. Reviewing trapping data for the past three years, it appears that an important factor was the integration of male annihilation (MA) trapping with the bait spray and sanitation tactics. MA traps were set at a rate of about 1 trap per 4 acres. The lower Kula zone was saturated by mid-July 2002. The mice were also somewhat helpful and hurtful at the same time.

We have to be wary. The protein monitoring traps suggest an upswing in female numbers in mid-November suggesting that we need to be vigilant. Our Christmas wish is that growers are successful in suppressing melon fly numbers and that they have higher yields for the heavy holiday demand. Let’s keep “MELON FLY CATCH PER TRAP DAY (CPTD) USING CUE LURE” covered in orange dots this season (Grid Legend: 0.1-5.0 CPTD).

Male Annihilation + Grower Adoption = Continued Success!
In November, area wide crew members distributed supplies (melon fly lures and vapor strip) to cooperators with male annihilation traps on their farms. The program is now shifting the responsibilities of servicing these traps to the grower cooperators. HAW-FLYPM will continue to supply the male lure wick and vapor strip to grower cooperators for the time being. December is a busy month, some growers have already serviced their traps, while some have not. Remember, it takes an area wide effort to keep populations low. If you are experiencing a difficult time scheduling these replacements, can’t locate a trap or do not have enough help during the holiday season, please call Earl or Troy at 878-1213 and arrangements can be made to assist you. Area wide crew members will be visiting farms soon to follow-up on progress and provide support where needed.
Medfly Suppression Trial in Coffee Utilizing GF-120 Fruit Fly Bait
G. McQuate

The problem. In 2001 we learned that Medfly Biolure mass-trapping successfully reduced in-field Medfly populations for most growers before persimmon fruits began to ripen. The exception was a persimmon farm that also had fruiting coffee cherries. Medfly suppression was poor on this farm.

Field-testing a solution. In the 2002 persimmon season we conducted a field trial to test whether weekly GF-120 Fruit Fly Bait sprays on the coffee plants, in addition to Medfly Biolure mass trapping, could suppress the on-farm Medfly population so as to minimize persimmon infestation.

The scenario. Our experiment was conducted on two Kula farms that had both persimmon and coffee. Biolure-based mass trapping was conducted on both sites. In addition, weekly GF-120 bait sprays were applied to coffee plants at the “Spray Site” while the other site (the “Un-sprayed Site”) received no such sprays.

- At the start, Medfly adult numbers were similar in number on both farms. Coffee cherries infested by Medfly maggots were 70% infested in the Spray Site and only 47% in the Un-sprayed site.
- The impact on fly numbers and breeding in coffee cherries was striking. After 4 sprays, coffee cherry infestation at the Spray Site was 6.5% compared to 23.5% in the Unsprayed Site (23.5%). After 9 sprays the trap catch in the Spray Site dropped to less than 10% of the catch in the Un-sprayed site and remained less than 10% for the rest of the trial, except for a brief population increase related to a rainy spell and a skipped spray.
- Comparisons of persimmons harvested after 11 days were striking. The infestation rate in the Un-Sprayed Site (62%) was about three times greater than in the Spray Site (22%).

Medfly parasitoids also helped. Biological control was also an important factor in this trial as both sites were found to have 3 species of Medfly parasitoid, the primary species being Fopius arisanus. About 50% of Medfly infestations were found to be parasitized. The combination of Biolure trapping and natural parasitization helped to gradually decrease coffee infestation rate in the Un-Sprayed Site, though clearly not to the extent found in the Spray Site.

The take-home message. This trial shows that GF-120 sprays, in conjunction with Biolure mass trapping, can significantly decrease Medfly infestation in coffee and in adjacent persimmons. It also shows that parasites already established in Kula can also play an important role in suppressing Medfly populations in coffee and, potentially, other crops as well.

Caution, please note that…at present, GF-120 Fruit Fly Bait is not registered for use on coffee or persimmon (so we had to get an Experimental Use Permit from the State Pesticide Branch to conduct this trial), but an “all crops” label for GF-120 is anticipated in late 2003 or early 2004, making it then available for use in IPM programs targeting Medfly in persimmon orchards.
John and Hanako Hashimoto: Kula Cooperators

John and Hanako Hashimoto are two pioneers who helped develop persimmon farming in Upper Kula, Maui. They recall a time when fruit flies were nonexistent in Maui. Over the years, they witnessed the impact of the Mediterranean fruit fly, and soon after World War II, the invasion of the Oriental fruit fly. Hashimoto Farms is a four-generation farming operation. Every member of the Hashimoto family is involved with some aspect of the farm. From fruit fly pest management to selling fresh persimmon fruits and jams, it's a family affair. *Cercospora* leaf spot hit the Hashimoto farm pretty hard this year and caused ripening to occur much faster than normal. John and Hanako’s son Clark Hashimoto said, “Without the fruit fly suppression program, I can honestly say that the persimmon would have been a total loss this year.”