Oriental Fruit Flies in the Redland Trigger Quarantine

September 11, 2015

Jeff Wasielewski, Commercial Tropical Fruit Agent, Miami-Dade, UF/IFAS Extension

Sometime before dawn on Wednesday, September 2, 2015, a quarantine went into effect in a 85 square mile of the Redland housing packing houses, tropical fruit groves, vegetable fields, fruit stands, plant nurseries, and homes. The quarantine is serious business, and a multi-million dollar agricultural industry is at stake.

The quarantine went into effect 24 hours after a public announcement was placed in The Miami Herald, and was prompted by Florida Rule 5B-66, which states “State and federal agricultural officials are mandated to keep the Oriental fruit fly out of this country. Wherever Oriental fruit flies are found in the continental U.S., the pest must be eradicated.”

Tens of thousands of traps lie waiting throughout Florida at any given time with the sole purpose of alerting the Florida Department of Agriculture and Consumer Services (FDACS) to the presence of the Oriental Fruit fly and other invasive and destructive species of fruit flies. The FDACS website lists seven previous oriental fruit fly finds and subsequent eradications in Florida.

The Oriental fruit fly, Bactrocera dorsalis, is taken extremely seriously because the species has massive host list of 435 plants; they are the strongest fliers of all the fruit flies, and one female fly lays an average of 600 eggs in 30 days. According to Mark Fagan, the public information specialist of the Division of Plant Industry, a specialized division within FDACS, 30% of females can push out a whopping 50 eggs in a single day, or 1,500 eggs in 30 days.

Females lay their eggs in host fruit or vegetables, then the young hatch and feed on the fruit, effectively making the fruit impossible to sell and unpalatable. The larvae then enter the soil below them, pupate, and
emerge as flies to begin the cycle yet again. This fly has the power to completely devastate the multi-million dollar agricultural industry in South Florida and trigger regulations that would cripple the industry and put thousands upon thousands of jobs in jeopardy.

Past finds of the Oriental fruit fly did not trigger quarantines because the number of flies was minimal with the previous high being 12 males and 4 females found in Tampa in 1999. The Redland invasion of 2015 was markedly different because of the extraordinary quantity of flies captured. After finding a lone male fly in a trap on August 17, outside of the quarantine area, FDACS later found an immediately alarming 45 male flies in a single trap on August 28. The historic 45 fly find was located in the heart of our agricultural industry in South Florida. Male flies are the first to be captured because the traps use a pheromone that tricks the males into thinking he is near a receptive female.

Enhanced trapping and scouting soon turned up even more males, as well as a mango fruit infested with Oriental fruit fly larvae. Co-incident Commander Bryan Benson, of FDACS, called these finds, “an unprecedented amount of Oriental fruit flies...with the capacity to devastate the local agricultural industry”.

FDACS, the USDA, Miami-Dade County, UF/IFAS Extension, and the University of Florida’s Tropical Research and Education Center have worked together, and readily shared information and resources to educate all interested parties about the rules and effects of the quarantine.

The response from the agricultural industry has been tremendous. The Miami-Dade Extension office has already hosted five workshops dedicated to educating the industry, with over 600 people in attendance that were there just so they could do the right thing and help to stop the fly from spreading.

Quarantine Facts:
-A compliance agreement needs to be filled out and signed, in person, with FDACS regulatory staff for any fruit, vegetable growers, packers, or sellers/stands located within the quarantine area that wish to sell or move any of the 435 host plants, vegetables, or fruits during the quarantine. Parties outside of the quarantine area that want to move produce into the area to pack or sell, must also sign a compliance agreement.

-Some nurseries within the quarantine area need to sign a compliance agreement. You can still buy plants from these nurseries as long as the grower has signed the agreement or is selling a product that is not regulated under the quarantine (soil, mulch, rocks, fish, wood products, or any plants that are not near or under a fruit fly host tree or have host fruit on the plant).

-Homeowners located within the quarantine zone cannot move fruit or vegetables on the host list off of their property. They can grow and eat the produce at their home, but cannot, under any circumstance, move the produce off their property until the quarantine is lifted.

-It is possible to sell and buy produce within the quarantine area if the vendor has signed a compliance agreement and is taking the proper precautions (covering produce with approved mesh, bags or cases). If in doubt, ask the vendor if they have signed a compliance agreement.

-Homeowners and fruit and vegetable growers outside of the quarantine area, or not affected by the quarantine because their crop is not in season, do not have to, or need to, spray any additional pesticides, or bait spray. Baits and sprays are part of the compliance agreement, but do not affect others, especially homeowners, and are not needed or recommended.

The rules and regulations regarding the quarantine are difficult to complete and understand, but they are necessary to stop the Oriental fruit fly from jumping out of the quarantine area and making life even harder, if not impossible, for the hardworking farmers and agricultural community of the Redland. These men and women are your neighbors and often visit my office completely drenched in sweat after working countless, difficult hours in the fields tending to their crops.
The silver lining could be the fact that the trap and kill program designed for the Oriental fruit fly is, in the words of DPI’s Mark Fagan, “extraordinary”. FDACS men and women are working seven days a week to hang baited traps, strip trees of fruit in the “hot zone”, and to eradicate this destructive fly completely.

This can all go away if the traps remain empty for two full life cycles of the fly. The lifecycle fluctuates based on climatic conditions with hotter temperatures producing lifecycles around 30 days and cooler temperatures pushing the cycle nearer to 45 days. If all goes well, the quarantine could be over by late November or early December.

The Redland is an area unlike any other on the planet. It is home to an incredible array of tropical fruit and vegetables, with crops as well known as avocados and squash, and as unique as sugar apples and winged beans. Vegetable fields and fruit groves are intermixed and produce crops side by side tended by people as varied and diverse as the very crops they grow. That one of a kind diversity could be lost if the Oriental fruit fly permanently sets up shop in the Redland, so let’s all work together to not let that happen.

For the quarantine map, a list of the 435 host plants, a copy of the compliance agreement, and more information on the Oriental fruit fly, visit the Fresh From Florida website.

Call the Fresh From Florida Helpline at 1-888-397-1517 to request to be visited to sign a compliance agreement.

Contact Miami-Dade Extension Commercial Tropical Fruit Agent, Jeff Wasielewski, at 305-248-3311, ext. 227 for more information regarding the quarantine and the compliance agreement.