

## SUMMARY/BACKGROUND

- The Mexican fruit fly (MFF) is among the world's most destructive pests and can destroy many types of fruit, including oranges, grapefruits, apples, peaches and pears.
- Female fruit flies lay their eggs in ripening fruit. The eggs hatch into larvae that eat the flesh of the fruit, causing it to rot.
- This fly would threaten the production, sale and export of many fruit crops in California if it were allowed to become established. The combined 2007 gross value of those hosts attacked by MFF was over \$2.8 billion.
- In the U.S., populations of this pest are found in extreme south Texas along the lower Rio Grande Valley, but are currently under eradication both there and in the bordering areas of Mexico. This pest has been discovered and eradicated successfully in California numerous times, with the first eradication occurring in 1954 in San Diego County.
- MFF is native to Mexico and is also found in Belize, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua.

## LIFE CYCLE

- Female MFF lay eggs in groups of up to 18 and a single fly may lay several thousand eggs in her lifetime. Larvae may require 11 days to over a month to complete development, depending on temperature.
- At maturity, the larvae exit the fruit and burrow into the soil to pupate. Adults emerge from 12 to 100 days later depending on temperature.
- Breeding is continuous with four to six generations a year.

## ERADICATION PROGRAM

- Protecting California's environment from invasive species is the goal, and eradication via sterile insect technique (SIT) and ground treatments is the strategy.
- SIT relies on a continuous release of thousands of sterile Mexican fruit flies per square mile each week. When the sterile males mate with wild females, no offspring are produced and the wild fly population becomes extinct.
- Sterile fruit flies will be released each week for at least two life cycles beyond the last fly find.
- If there is evidence that a breeding population exists in an area, supplemental ground treatments may be required to mitigate the spread of MFF. In this case, host trees and plants within a 200-meter radius of the find site are treated with a handheld hose that dispenses an organic formulation of Spinosad. Treatments are repeated every seven days for six weeks or for one life cycle.
- If larvae are discovered, fruit from the infested property and up to 100-meters around the find site may be removed and taken for disposal under regulatory compliance.

## MORE INFORMATION IS AVAILABLE

CDFA - [www.cdfa.ca.gov/phpps/](http://www.cdfa.ca.gov/phpps/)  
CDFA Pest Hotline: 800-491-1899  
APHIS/USDA - [www.aphis.usda.gov](http://www.aphis.usda.gov)

