CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

OFFICIAL NOTICE
FOR THE COMMUNITIES OF EAST LOS ANGELES,
COMMERCE, AND MONTEBELLO
IN LOS ANGELES COUNTY
PLEASE READ IMMEDIATELY

PROCLAMATION OF EMERGENCY PROGRAM FOR THE CARIBBEAN FRUIT FLY

Between September 19, 2025, and September 29, 2025, the California Department of Food and Agriculture (CDFA) confirmed that four Caribbean fruit flies (CFF), *Anastrepha suspensa* (Loew), were trapped in the community of East Los Angeles in Los Angeles County. Based on these detections, pest biology, information from the Primary State Entomologist, and the CDFA's "Action Plan for Caribbean Fruit Fly *Anastrepha suspensa* (Loew)", the CDFA concludes that an infestation of CFF exists in the area. This pest presents a significant, clear, and imminent threat to the natural environment, agriculture and economy of California. Unless emergency action is taken there is high potential for sudden future detections in Los Angeles County

In accordance with integrated pest management principles, the CDFA has evaluated possible eradication methods and determined that there are no cultural methods available to eliminate CFF from this area. This Proclamation of Emergency Program is valid until June 30, 2026, which is the amount of time necessary to carry out the treatment plan across three life cycles of CFF as required by the treatment protocol for CFF. The CDFA will employ chemical controls as the primary tool and will additionally use physical control via host fruit removal when CFF is detected on a property.

The detection of the CFF described above requires immediate action to address the imminent threat to California's natural environment, agriculture and economy. More specifically, in addition to a wide variety of commercial crops, CFF threatens loss and damage to native wildlife, private and public property, and food supplies. Because the life cycle of the CFF detected between September 19, 2025, and September 29, 2025, has not yet transpired, there is a high potential for sudden future detections in Los Angeles. Therefore, the Secretary is invoking Public Resources Code Section 21080(b)(4) to carry out immediate emergency action to prevent the aforementioned loss and damage to California's resources.

To eradicate CFF from this area, the treatment portion of the work plan is as follows:

- Foliar bait treatments are used within 400 meters of each detection site in order to kill adults. Foliar bait ground treatments are a protein bait spray that contains an organic formulation of the pesticide spinosad (GF-120 NF Naturalyte® Fruit Fly Bait), and are repeated every five to 14 days for two life cycles of the fly (typically four to six months, dependent on temperature). Visit the CDFA website to learn more about the treatment process at http://www.cdfa.ca.gov/plant/videos/spinosad.

- All host fruit from each detection site and all properties within a minimum of 100 meters of each detection site will be removed and disposed of in a landfill in accordance with regulatory protocols. Fruit removal will occur once at the beginning of the project, but may be repeated if additional flies are detected.

Public Information:

Except in circumstances where CDFA needs to execute an inspection or abatement warrant, residents whose property will be treated via foliar bait sprays or host fruit removal will be notified in writing at least 48 hours in advance of any treatment. Following the treatment, completion notices are left with the residents detailing precautions to take and post-harvest intervals applicable to any fruit on the property.

Treatment information is posted at https://www.cdfa.ca.gov/plant/PDEP/target_pest_disease_profiles/caribbean_ff_profile.html. Emergency program area maps are posted at: https://www.cdfa.ca.gov/plant/pdep/treatment/treatment_maps.html. Press releases, if issued, are prepared by the CDFA information officer and the county agricultural commissioner, in close coordination with the project leader responsible for treatment. Either the county agricultural commissioner or the public information officer serves as the primary contact to the media.

Information concerning the CFF project shall be conveyed directly to local and State political representatives and authorities via letters, emails, and/or faxes.

For any questions related to this program, please contact the CDFA toll-free telephone number at 800-491-1899 for assistance. This telephone number is also listed on all treatment notices.

Enclosed are the findings regarding the treatment plan, work plan, map of the treatment area, integrated pest management analysis of alternative treatment methods, and a pest profile.

Attachments:

Findings
Treatment Area Map
Work Plan
IPM Analysis
Pest Profile

FINDINGS OF AN EMERGENCY FOR THE CARIBBEAN FRUIT FLY

Between September 19, 2025, and September 29, 2025, the California Department of Food and Agriculture (CDFA) confirmed that four Caribbean fruit flies (CFF), *Anastrepha suspensa* (Loew), were trapped in the community of East Los Angeles in Los Angeles County. These detections indicate that a breeding population exists in the area. Unless emergency action is taken, then there is high potential for sudden future detections in Los Angeles County. The CFF is a devastating pest of a wide variety of important fruits and vegetables.

In order to determine the extent of the infestation, and to define an appropriate response area, an additional survey took place, centered on the detection site. Based on the survey data, and findings and recommendations from the Primary State Entomologist, and the CDFA's "Action Plan for Caribbean Fruit Fly *Anastrepha suspensa* (Loew)", I have determined that CFF poses a statewide imminent danger to the environment and economy.

The results of the additional survey also indicated that the local infestation is amenable to CDFA's CFF response strategies, which include chemical treatments and removal of host fruit. These options were selected based upon minimal impacts to the natural environment, biological effectiveness, minimal public intrusiveness, and cost.

CFF is found throughout the West Indies, from the Bahamas and Cuba to Jamaica and Puerto Rico. Its distribution in the United States is restricted to the peninsular Florida, where it has been established since 1965. Many crops in California would be threatened by the introduction of this pest including avocado, lime, mandarin, orange, peach, pear, pomegranate, and tomato. Damage occurs when the female lays eggs in the fruit. These eggs hatch into larvae, which tunnel through the flesh of the fruit, making it unfit for consumption.

A life cycle is an estimate of insect phenology based on a heat degree day temperature driven model. Warmer temperatures lead to faster lifecycles, while colder temperatures slow lifecycle development. Daily minimum and maximum temperatures are collected from nearby regional data stations and used to calculate estimated temperature value curves. These temperature curves are used to project the length of fly lifecycles against established models specific to the CFF. Because the third (F3) life cycle of the CFF detected between September 19, 2025, and September 29, 2025, is not projected to be complete until June 30, 2026, it is likely that there are additional flies in the environment that will lead to sudden future detections.

This pest presents a significant and imminent threat to the natural environment, agriculture and economy of California. Invasive fruit flies are internal feeders of fruit, and their presence therefore makes the fruit unfit for consumption. There is a loss of marketability and ability to ship food to other states and nations. The combined 2024 gross production value of host commercial commodities potentially affected by CFF was over $4.07 billion. The permanent establishment and spread of this pest would result in increased production and postharvest costs to safeguard commercial fruit from infestation, increased pesticide applications on both production agriculture and residential properties to mitigate damage, and lost economic activity and jobs from trade restrictions imposed by foreign trade partners.

This decision to proceed with treatment is based upon a realistic evaluation that it will be possible to eliminate CFF from this area and prevent its spread using currently available technology in a manner that is based on the developed action plan. Due to the size of the infested area and the number of flies detected, historical data indicates that eradication is possible. The first California CFF detections occurred in San Diego County in 1983, and since that time, occasional re-introductions have been delimited and successfully eradicated.

The CDFA has evaluated possible treatment methods in accordance with integrated pest management (IPM) principles. As part of these principles, I have considered the following

treatments for control of CFF: 1) physical controls; 2) cultural controls; 3) biological controls; and 4) chemical controls. Upon careful evaluation of each of these options, I have determined that it will be possible to address the imminent threat posed by CFF using currently available technology in a manner that is recommended by the CFFSAP.

Based upon input from the Primary State Entomologist, and the CDFA's "Action Plan for Caribbean Fruit Fly *Anastrepha suspensa* (Loew)", I find there are no cultural or biological control methods that are both effective against CFF and allow CDFA to meet its statutory obligations and therefore it is necessary to conduct physical and chemical control methods to abate this threat. As a result, I am ordering ground applied foliar bait sprays consisting of an organic formulation of spinosad applied to host trees using ground-based equipment. Additionally, host fruit removal will occur around the detection sites. Descriptions of these options are below and are contained in the attached work plan.

Sensitive Areas

CDFA has consulted with the California Department of Fish and Wildlife's California Natural Diversity Database for threatened or endangered species, the United States Fish and Wildlife Service, the National Marine Fisheries Service, and the California Department of Fish and Wildlife when rare and endangered species are located within the treatment area. Mitigation measures for rare and endangered species will be implemented. The CDFA shall not apply pesticides to bodies of water or undeveloped areas of native vegetation. All treatment shall be applied to residential properties, common areas within residential development, non-agricultural commercial properties, and rights-of-way.

Work Plan

The proposed treatment area encompasses those portions of Los Angeles County which fall within a 1.5-mile radius around each property on which an CFF has been detected and any subsequent detection sites within the program boundaries. The Proclamation of Emergency Program is valid until June 30, 2026, which is the amount of time necessary to carry out the treatment plan across three life cycles of CFF as required by the treatment protocol for CFF. A map of the project boundaries is attached. The work plan consists of the following elements:

1. Delimitation. McPhail traps will be used to delimit the infestation and monitor post-treatment populations. McPhail traps baited with Torula yeast are increased over an 81-square mile area centered on the detection. In the core square mile, 80 McPhail traps are placed. In the four one-mile deep buffers, McPhail traps are placed at densities of 40, 20, 10, and five traps per square mile respectively, going outward. Additional traps may be added to further delimit the infestation and to determine the efficacy of treatments. All traps will be serviced on a regular schedule for a period equal to three CFF generations beyond the date of the last fly detected. In addition, host fruit may be sampled for the presence of eggs and larvae in a 200-meter radius around each detection property.

2. Treatment. Any CFF detections within the original and/or expanded eradication area(s) will be treated according to the following protocol:

    - Foliar bait treatments are used within 400 meters of each detection site in order to kill adults. Foliar bait ground treatments are a protein bait spray that contains an organic formulation of the pesticide spinosad (GF-120 NF Naturalyte® Fruit Fly Bait), and are repeated every five to 14 days for two life cycles of the fly (typically four to six months,

dependent on temperature).

- All host fruit from each detection site and all properties within a minimum of 100 meters of each detection site will be removed and disposed of in a landfill in accordance with regulatory protocols. Fruit removal will occur once at the beginning of the project, but may be repeated if additional flies are detected.

Public Information

Except in circumstances where CDFA needs to execute an inspection or abatement warrant, residents whose property will be treated via foliar bait sprays or host fruit removal will be notified in writing at least 48 hours in advance of any treatment. Following the treatment, completion notices are left with the residents detailing precautions to take and post-harvest intervals applicable to any fruit on the property.

Treatment information is posted at https://www.cdfa.ca.gov/plant/pdep/treatment/treatment_maps.html. Press releases, if issued, are prepared by the CDFA information officer and the county agricultural commissioner, in close coordination with the project leader responsible for treatment. Either the county agricultural commissioner or the public information officer serves as the primary contact to the media.

Information concerning the CFF project shall be conveyed directly to local and State political representatives and authorities via letters, emails, and/or faxes.

For any questions related to this program, please contact the CDFA toll-free telephone number at 800-491-1899 for assistance. This telephone number is also listed on all treatment notices.

Findings

Due to the detection of CFF, there exists a significant, clear, and imminent threat to California's natural environment, agriculture, public and private property, and its economy.

Unless emergency action is taken during the life cycles of recently detected CFF, there is high potential for sudden future detections in Los Angeles County.

The work plan involving physical and chemical control of this pest is necessary to prevent loss and damage to California's natural environment, fruit and vegetable industry, native wildlife, private and public property, and food supplies.

Therefore, I am invoking Public Resources Code Section 21080(b)(4) to carry out immediate emergency action to prevent this loss and damage.

My decision to adopt findings and take action is based on Sections 24.5, 401, 401.5, 403, 407, 408, 5401-5405, and 5761-5764 of the Food and Agricultural Code, and title 3 of the California Code of Regulations (CCR) Section 5391.11.

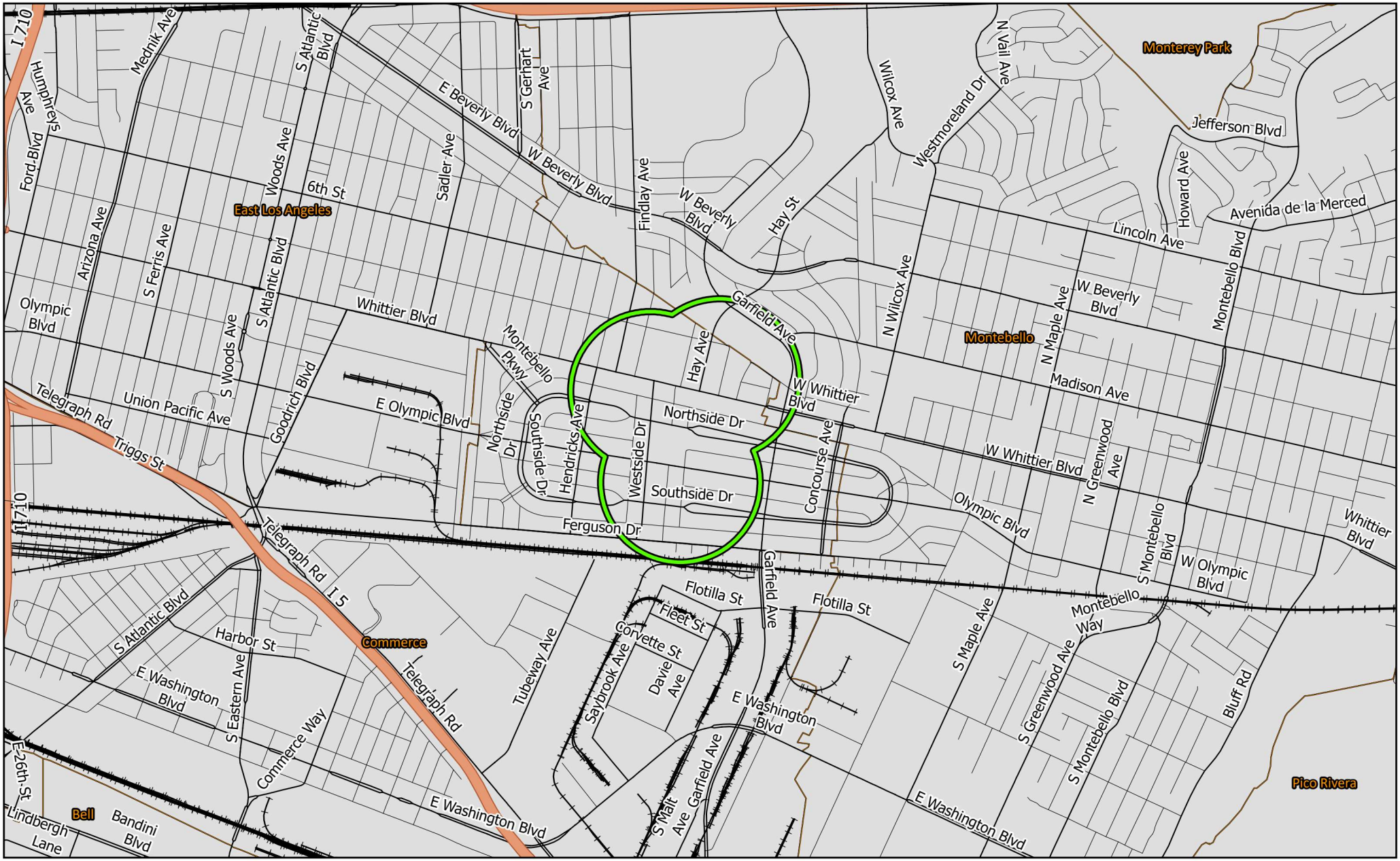
Signature on File

Karen Ross, Secretary

10/2/25

Date

Caribbean Fruit Fly Eradication Project
Commerce, East Los Angeles, and Montebello - Los Angeles County
2025



cdfa

0 0.5 1 1.5 mi

400m Foliar Treatment Area

Sensitive Environmental Area/Treatment Mitigation In Place

ERADICATION PROJECT WORK PLAN FOR CARIBBEAN FRUIT FLY September 2025

DETECTION

1. Detection Trapping

The California Department of Food and Agriculture (CDFA) maintains a cooperative State/County trapping program for various fruit flies to provide early detection of any infestation in the State. Traps are serviced by either County or State personnel and funded by the Department. The Caribbean fruit fly (CFF) program uses the McPhail trap, an invaginated glass flask baited with Torula yeast and borax in water, which is attractive to both sexes of the fly. Traps are hung from branches of host trees at specified densities in susceptible areas of California. County or State employees inspect these traps weekly or bi-weekly throughout the year in southern California and from April or May through October or November in northern California.

2. Intensive Trapping

Intensive trapping is triggered after a single fly is detected. Following confirmation of the specimen, trap densities are increased over an 81-square mile area centered on the detection. In the core square mile, 80 McPhail traps are placed. In the four one-mile deep buffers, McPhail traps are placed at densities of 40, 20, 10, and five traps per square mile respectively, going outward. Trap densities in the core square mile are increased to protocol levels within 24 hours, while trap placement in the remainder of the delimitation area will be completed from the core outward within 72 hours of the detection. Traps in the core are serviced daily for the first week. Traps in the first buffer zone are serviced every two days, and those in the remainder of the delimitation area are serviced at least once during the first week. After one week of negative finds, trap inspection frequency changes to weekly. Intensive trapping ends after the third complete life cycle following the last fly detected. This time period is determined by a temperature dependent developmental model run by Pest Detection/Emergency Projects Branch in Sacramento.

3. Post-Treatment Monitoring

The success of the eradication program is monitored by intensive trapping levels for three life cycles of the CFF after the last fly has been detected. If no flies are caught during that time, trap densities return to detection levels.

4. Larval Survey

Fruit on a property where a fly has been trapped may be inspected for possible larval infestation. Small circular oviposition scars are occasionally visible indicating an infested fruit. Fruit on properties adjacent to a trap catch may also be inspected. If two or more flies are trapped close to each other, fruit cutting may be extended to all properties within a 200-meter radius of the finds, concentrating on preferred hosts.

TREATMENT

1. Foliar Spray

The foliage of host trees and shrubs within 400 meters of each detection site will be treated with an organic formulation of spinosad bait spray (GF-120 NF Naturalyte® Fruit Fly Bait) using hand spray or hydraulic spray equipment. Affected properties will be notified in writing at least 48 hours prior to treatment. Following treatment, completion notices are left with the homeowners detailing precautions to take and post-harvest intervals applicable to any fruit on the property. Treatments are repeated at five to 14 day intervals for two life cycles of the fly (typically four to six months, dependent on temperature).

2. Host Fruit Removal

Host removal (fruit stripping) will be used in conjunction with the other treatment option. All host fruit will be removed from all properties within a minimum of a 100-meter radius around the detection sites. The fruit is taken to a landfill for burial using regulatory compliance protocols. Fruit removal will occur once at the beginning of the project, but may be repeated if additional flies are detected. Affected properties will be notified in writing at least 48 hours prior to removal of the fruit.

SENSITIVE AREAS

The treatment area has been reviewed through consultation with the California Department of Fish and Wildlife's California Natural Diversity Database for threatened or endangered species. The CDFA also consults with the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service and the National Marine Fisheries Services when rare and endangered species are located within the treatment area. Mitigation measures will be implemented as needed. The CDFA will not apply pesticides to bodies of water or undeveloped areas of native vegetation.

PUBLIC NOTIFICATION

Except in circumstances where CDFA needs to execute an inspection or abatement warrant, residents whose property will be treated via foliar bait sprays or host fruit removal will be notified in writing at least 48 hours in advance of any treatment. Following the treatment, completion notices are left with the residents detailing precautions to take and post-harvest intervals applicable to any fruit on the property.

Treatment information is posted at https://www.cdfa.ca.gov/plant/pdep/treatment/treatment_maps.html. Press releases, if issued, are prepared by the CDFA information officer and the county agricultural commissioner, in close coordination with the project leader responsible for treatment. Either the county agricultural commissioner or the public information officer serves as the primary contact to the media.

Information concerning the CFF project shall be conveyed directly to local and State political representatives and authorities via letters, emails, and/or faxes.

For any questions related to this program, please contact the CDFA toll-free telephone number at 800-491-1899 for assistance. This telephone number is also listed on all treatment notices.

INTEGRATED PEST MANAGEMENT ANALYSIS OF ALTERNATIVE TREATMENT METHODS TO ERADICATE CARIBBEAN FRUIT FLY
September 2025

The treatment program used by the California Department of Food and Agriculture (CDFA) for control of the Caribbean fruit fly (CFF), *Anastrepha suspensa* (Diptera: Tephritidae), employs a targeted foliar bait spray treatment using an organic pesticide, with fruit removal.

Below is an evaluation of alternatives treatment methods for CFF which have been considered for eradication programs in California.

A. PHYSICAL CONTROL

Mass Trapping. This method involves placing a high density of traps in an area in an attempt to physically remove the adults before they can reproduce. For CFF, the available lures have a limited drawing range of a few yards, and mass trapping has not been shown to be effective at eradicating CFF populations.

Active Fly Removal. Adult flies are mobile daytime fliers, and adults could theoretically be netted or collected off of foliage. However, due to their ability to fly when disturbed, and the laborious and time prohibitive task of collecting flying insects from several properties by hand, it would be highly improbable that all of the adults could be captured and removed. Larvae live inside the fruit, so all potentially infested fruit in the entirety of the eradication area would have to be removed and disposed of in order to eliminate the larvae from the environment. For these reasons, active fly removal is not considered to be an effective alternative.

Fruit Bagging. Fruit bagging involves individually enclosing each developing fruit in a bag which prevents fruit flies from laying eggs. In order to be effective, frequent monitoring of the bagged fruit is needed to identify and repair damage to the bags before female flies can enter and lay eggs. Fruit bagging is considered an economically inefficient option for area-wide treatment because it is so labor intensive. It is also intrusive to residents, who may oppose having their home grown produce confined inside bags. Additionally, this method may possibly promote the dispersal of female flies in search of egg laying sites, thus spreading the infestation if other treatments are not used outside the fruit bagging area. For these reasons, fruit bagging is not considered to be an effective alternative.

Host Fruit Removal. Removal of host fruits involves the physical removal of all suitable fruit from both the host plant and from the surrounding ground, in order to eliminate developing eggs and larvae. The fruit is collected and double- bagged before being buried in a landfill. California's CFF program performs host fruit removal within a minimum of a 100-meter radius of detection sites as an added measure to reduce populations within that area and to prevent spread of adult life stages. Fruit removal is not considered an economically inefficient option for area-wide treatment because it is so labor intensive. It is also intrusive to residents, who may oppose losing their home grown produce. Additionally, this method may possibly promote the dispersal of female flies in search of egg laying sites, thus spreading the infestation if other treatments are not used outside the fruit removal area. For these reasons, fruit removal is most useful as a complimentary treatment to one or more other treatments.

Host Plant Removal. Removal of host plants involves the large scale destruction of plants by either physical removal or phytotoxic herbicides. Host plant removal is not considered an economically inefficient option for area-wide treatment because it is so labor intensive. It is also

intrusive to residents, who may oppose losing their plants. Additionally, this method may possibly promote the dispersal of female flies in search of egg laying sites, thus spreading the infestation if other treatments are not used outside the host plant removal area.

B. CULTURAL CONTROL

Cultural Control. Cultural controls involve the manipulation of cultivation practices to reduce the prevalence of pest populations. These include crop rotation, early harvest (i.e., harvesting green fruit before it is suitable for oviposition), using pest-resistant varieties, and intercropping with pest-repellent plants. None of these options are applicable for CFF eradications in an urban environment with multiple hosts, and may only serve to drive the flies outside the treatment area, thus spreading the infestation.

C. BIOLOGICAL CONTROL

Microorganisms. No single-celled microorganisms, such as bacteria, have been shown to be effective at controlling CFF.

Nematodes. No nematodes have been shown to be effective at controlling CFF.

Parasites and Predators. Parasites and predators are not considered an effective stand alone eradication method because their success is density dependent; they are more effective against dense prey populations than against light populations, so their effectiveness decreases as the prey populations decline. Although several organisms, such as parasitic wasps, have been investigated as potential biological control agents against exotic fruit fly species, they have only been used in suppression programs and not in eradication programs. Since there is insufficient research documenting their efficacy in an eradication program, using these organisms could lead to the ineffectiveness of the program.

Sterile Insect Technique (SIT). The sterile insect technique (SIT) involves the production and release of reproductively sterile insects, with the goal of preventing reproduction in a pest population via the mating of the sterile insects with the existing field population. SIT is not currently used in California's CFF eradication program because there are no production facilities capable of producing enough sterile flies.

D. CHEMICAL CONTROL

Ground Applied Foliar Bait Treatment. Foliar bait treatments use an insecticide mixed with a food attractant in order to kill adults, particularly females. The CDFA uses this treatment as the primary control method. The foliage of host trees and shrubs within 400 meters of each detection site is treated with an organic formulation of spinosad bait spray (GF-120 NF Naturalyte® Fruit Fly Bait) using hand spray or hydraulic spray equipment. This treatment is repeated at five to 14 day intervals for two life cycles beyond the last fly detected.

Aerial Applied Foliar Bait Treatment. Aerial application of insecticide and bait combinations has been used by the CDFA in the past for control of other species of fruit flies, but has not been used since 2003. If employed, the application would take place over areas within 1.5 miles of each fly detection for up to two life cycles. The public concern about this type of application over urban areas and restrictions on low-flying aircraft over these areas limits its usefulness in most cases.

Foliar Cover Spray Treatment. Foliar cover spray treatments use a contact insecticide in order to kill adults. This treatment is non-selective and will affect any insects which come into contact with it, including biological control agents. In order to sufficiently cover an area, much more pesticide must be applied per area than with foliar bait sprays. For these reasons, cover sprays are not used for this program.

Soil Treatment. Contact insecticides drenched into the soil have been used against CFF in the past. The goal is to directly kill larvae entering the soil to pupate, pupae in the soil, and adults emerging from pupae by drenching the soil surrounding host plants. The insecticide previously used for this purpose contains the organophosphate insecticide diazinon. However, this treatment has not been used since 2001 in California because of its environmental toxicity, difficulty in removing obstructing ground clutter and debris, and a perceived lack of effectiveness in the varied soil types found in urban environments.

E. RESOURCES

California Department of Food and Agriculture. 1993. The Exotic Fruit Fly Eradication Program Utilizing Male Annihilation and Allied Methods. Final Programmatic Environmental Impact Report. State of California, Department of Food and Agriculture, Sacramento, California. State Clearinghouse Number 90021212, April 1993. 572 pp.

California Department of Food and Agriculture. 1994. The Exotic Fruit Fly Eradication Program Using Aerial Application of Malathion and Bait. Final Programmatic Environmental Impact Report. State of California, Department of Food and Agriculture, Sacramento, California. State Clearinghouse Number 91043018, April 1994.

United States Department of Agriculture. 2001. Fruit Fly Cooperative Control Program. Final Environmental Impact Statement 2001. 385 pp.

PEST PROFILE

Common Name: Caribbean Fruit Fly

Scientific Name: *Anastrepha suspensa* (Loew)

Order and Family: Diptera, Tephritidae

Description: The adult Caribbean fruit fly (CFF) is larger than a housefly, about one centimeter (0.3 inch) long. The body color is a pale yellow-tan with three pale stripes along the thorax, and a black spot at the base of the scutellum. The clear wings are patterned brown with an "S" over an inverted "V" across the wing. The female oviscape is about as long as the abdomen. The maggots (larvae) are legless, and range in color from white to yellowish-white, and grow to a length of one centimeter within the host fruit. The pupa is encased in a dark brown cylindrical puparium.

History and Economic Importance: CFF is widespread throughout the West Indies. It was present in Florida during the 1930's, but apparently died out. It was rediscovered in south Florida in 1965, and quickly spread throughout much of the state. Its present United States distribution is restricted to central and southern Florida. A large number of commercially grown crops in California would be threatened by the introduction of this pest, including apple, avocado, orange, peach, pear, pomegranate, and tomato. Damage occurs when the female lays eggs in the fruit. These eggs hatch into larvae, which tunnel through the flesh of the fruit, making it unfit for consumption. The first California detection occurred in San Diego County in 1983, and since that time, occasional introductions have been delimited and successfully eradicated.

Distribution: CFF is widespread throughout the West Indies, being reported from the Bahamas, Cuba, Dominican Republic, Haiti, Jamaica, and Puerto Rico. Its distribution in the United States is restricted to peninsular Florida.

Life Cycle: Females lay eggs singly, and a single female may lay over 150 eggs in her lifetime. Eggs hatch in two to three days. Larvae go through three instars and require 10 to 14 days to complete development depending on temperature. At maturity, the larvae exit the fruit and burrow into the soil to pupate. Adults emerge 10 to 14 days later depending on temperature. Newly-emerged adults usually require from nine to 16 days to mature prior to mating and egg laying. Breeding is continuous with several generations a year under optimum conditions.

Hosts and Damage: Over 100 host plants have been recorded as being attacked by CFF (see Partial Host List below). Fruit that has been attacked may be unfit for consumption due to the larvae tunneling through the flesh as they feed. Decay-producing organisms then enter, leaving the interior of the fruit a rotten mass.

Partial Host List

Common Name	**Scientific Name**
Avocado	*Persea americana*
Balsam apple	*Momordica balsamina*
Barbados cherry	*Malpighia glabra*
Bell pepper	*Capsicum annuum*
Blackberry	*Rubus* hybrid
Calamondin	*Citrus mitis*
Carambola	*Averrhoa carambola*
Date palm	*Phoenix dactylifera*
Fig	*Ficus carica*
Guava, common	*Psidium guajava*
Guava, Cattley	*Psidium cattleianum*
Guava, Brazilian	*Psidium guineense*
Hog plum	Spondias mombin
Kumquat	*Fortunella* spp.
Lime	*Citrus aurantifolia*
Loquat	*Eriobotrya japonica*
Malay apple	*Eugenia malaccensis*
Mandarin	*Citrus reticulata*
Mango	*Mangifera indica*
Nectarine	*Prunus persica* var. *nectarina*
Orange, sour	*Citrus aurantium*
Orange, sweet	*Citrus sinensis*
Papaya	*Carica papaya*
Peach	*Prunus persica*
Pear	*Pyrus communis*
Persimmon, Japanese	*Diospyros* kaki
Plum	*Prunus domestica*
Pomegranate	*Punica granatum*
Pummelo	*Citrus grandis*
Raspberry	*Rubus idaeus*
Rose apple	*Eugenia jambos*
Sapodilla	*Manilkara zapota*
Sapote	*Casimiroa* spp.
Surinam cherry	*Eugenia uniflora*
Tropical almond	*Terminalia catappa*