California Department of Food and Agriculture
Plant Health and Pest Prevention Services
Pest Exclusion Branch

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Exotic Fruit Fly Regulatory Response Manual

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Exotic Fruit Fly Regulatory Response Manual

CDFA USDA

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Introduction

The aims of the *first* edition of the **Regulatory Response Manual** were:

- To collect and organize the wealth of day-to-day experience, expertise and information compiled in 1996 by staff members who enforced California's Mediterranean fruit fly quarantines in the Los Angeles Basin and Ventura County.

- To provide a "nuts and bolts," real world approach to the initial implementation and maintenance of regulatory guidelines and restrictions during a quarantine, to assist those federal, state and county officers whose future assignments might include one.

Taking this approach enhanced the utility of the manual in several different settings, from predominantly urban, to agricultural, to mixed-use areas of the State.

Although there are action plans and procedural manuals for exotic fruit fly quarantines, as well as archival information files available from previous quarantines, there is no handbook, *per se*, on the daily regulatory priorities that need to be addressed in actual practice during the *first two weeks* of a declared quarantine. This manual seeks to correct that deficit.

The first edition was a "snapshot" of regulatory priorities between the years 1994-96. Assembling it involved reaching consensus among the contributors regarding topics, choosing the format for each section, and organizing sections based on regulatory priorities.

The first edition had an appendix for each section that contained standard regulatory documents. Although its focus was on the first two weeks of a quarantine, it did attempt to address maintenance aspects of both longer-term area-wide, as well as smaller short-term, quarantines.

This *second* edition was prepared to widen the scope of the manual and bring it up to date. The new version now addresses those procedural elements common to conducting quarantines for all types of exotic fruit flies, including the Medfly. Reflecting the wider scope of this edition, it has been renamed the ***Exotic* Fruit Fly Regulatory Response Manual**.

This manual will continue to evolve over time as new crop trends develop, additional agricultural pest control techniques are adopted, and regulatory priorities change. Periodic updates of each section will be issued as revisions are made.

The editors continue to encourage the submission of helpful comments and suggestions from manual users and reviewers. We are solely responsible for any errors of omission or commission that resulted from its production.

We acknowledge our profound indebtedness to all those regulatory officers in federal, state, and county agencies, who have provided documentation of all their field and office activities involving exotic fruit fly quarantine compliance and enforcement. This manual would not have been possible without their continuing contributions.

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National Plant Board
Principles Of Plant Quarantine

(Adopted by the National Plant Board,1931, Amended 1936)

1. **Definition**. A quarantine is a restriction imposed by duly constituted authorities, whereby production, movement, or existence of plants, plant products, animals, animal products, or any other article or material, or the normal activity of persons, is brought under regulation, in order that the introduction or spread of a pest may be prevented or limited, or in order that a pest already introduced may be controlled or eradicated, thereby reducing or avoiding losses that would otherwise occur through damage done by the pest or through a continuing of control measures.

2. **Basis In Logic**. Since the ends to be attained by a quarantine and the measures required by it could not be undertaken by private individuals or groups, involving as they do restrictions on areas, persons, or activities for the benefit of wider interests or the public at large, resort to regulation imposed by public authority is logical.

3. **Necessity**. Establishment of a quarantine should rest on fundamental prerequisites, as follows: (1) the pest concerned must be of such nature as to offer actual or expected threat to substantial interests; (2) the proposed quarantine must represent a necessary or desirable measure for which no other substitute involving less interference with normal activities, is available; (3) the objective of the quarantine, either for preventing introduction or for limiting spread, must be reasonable of expectation; and (4) the economic gains expected must outweigh the cost of administration and the interference with normal activities.

4. **Legal Sanction**. A quarantine must derive from adequate law and authority and must operate within the provisions of such law.

5. **Validity**. A quarantine established for the purpose of attaining an objective other than that which it indicates or defines is open to serious criticism, even though the actual objective is itself desirable.

6. **Public Notice**. If the circumstances will permit, public notice of a proposed quarantine should be given and those interested should be invited to contribute facts in their possession, but if the object would be defeated by the delay required for such notice and discussion, duly constituted authorities should assume responsibility for the decision to impose or withhold quarantine action.

7. **Scope**. The extent of restrictions imposed by a quarantine should be only such as are believed necessary to accomplish the desired end but on the other hand, the objective of a quarantine should not be jeopardized by omission of any necessary restrictions.

8. **Relation To Eradication**. If a quarantine is imposed in order that eradication of a pest from a given area may be undertaken, the restrictions involved may properly be relatively extensive, because of the importance of the objective sought, and because the time through which the quarantine will operate may be expected to be relatively limited.

9. **Relation To Retarding Spread**. If a quarantine is imposed for the purpose of limiting or retarding the spread of a pest, but without expectation of eradication, the restrictions should be such as are in line with the objective of the quarantine and should recognize the fact that continuance of the pest in the area where it is established, or possibly its spread in time to new areas, is accepted. *[Both the United States Department of Agriculture and the California Department of Food and Agriculture now give consideration to revoking a quarantine if eradication or intensive control is not possible]*

10. **Cooperating Authorities**. Since quarantines usually involve relations between public authorities, such as those of the government of one country with that of another, or of federal and state governments, or of state government and local authorities, the cooperative relationship that is necessary to adequate enforcement should be clearly recognized and duly provided for.

11. **Cooperation Of The Public**. Because of the fact that the success of a quarantine requires that its restrictions be fully maintained, it is essential that all persons who are affected by it adhere to its requirements. In order that this end may be attained, the administration of a quarantine should seek the intelligent cooperation of the public affected, rather than depend exclusively on police powers, the imposition of penalties, or resort to court action.

12. **Clarity**. In order that a quarantine may be administered readily and consistently, it should be designed with care, should be phrased clearly, and should be made as simple as is consistent with legal requirements and the objectives to be attained.

13. **Information Service**. Since the persons affected by a quarantine may not reasonably be expected to possess full or accurate knowledge of the circumstances that make it necessary, or the nature and importance of the aim sought, and since compliance with quarantine restrictions will be more complete if the objective and plans are understood, measures should be taken to set forth the conditions existing, the means to be employed, and the end to be attained, and these measures should be continued from time to time as the undertaking proceeds toward accomplishment.

14. **Research**. If an emergency requires the establishment of a quarantine before satisfactory biological data are available, provisions should be made as soon as possible for extending the Fund of Biological Knowledge. The authority that exercises the right to establish the quarantine should command or secure the means for biological research, both in order that the quarantine may be made more efficient, and in order that the restrictions may be lessened where possible. The need for research, however, should not be permitted to delay the establishment of a quarantine believed by authorities to be desirable, thereby jeopardizing the objective that might otherwise have been attained.

15. **Modifications**. As conditions change, or as further facts become available, a quarantine should promptly be modified, either by inclusion of restrictions necessary to its success or by removal of requirements found not to be necessary. The obligation to modify a quarantine as conditions develop is a continuing obligation and should have continuing attention.

16. **Repeal**. If a quarantine has attained its objective, or if the progress of events has clearly proved that the desired end is not possible of attainment by the restrictions adopted, the measure should be promptly reconsidered, either with a view to repeal or with intent of substituting other measures.

17. **Notices To Parties At Interest**. Upon establishment of a quarantine, and upon institution of modifications or repeal, notices should be sent to the principal parties at interest, especially to federal and state authorities and to organizations representing the public involved in the restrictive measures.

18. **Use Of Natural Boundaries**. In defining the boundaries of a quarantined area, it is usually desirable to utilize state, county, or township lines. However, if a substantial natural feature, such as a mountain range or a large river, more correctly defines the actual area, such natural features should be utilized in the description of a quarantined area. *[Added 1936]*

Selected California Food and Agricultural Code Sections that Address Quarantine and Exotic Fruit Flies Issues

5321. If the secretary receives information of the existence of any pest, which is not generally distributed within this state, he shall thoroughly investigate the existence and probability of its spread, and the feasibility of its control or eradication.

5322. The secretary may establish, maintain, and enforce quarantine, eradication, and such other regulations as are in his or her opinion necessary to circumscribe and exterminate or prevent the spread of any pest, which is described in Section 5321.

5323. This division and the regulations which are established pursuant to this division are of a statewide interest and concern and are intended to occupy the field. No local jurisdiction shall adopt ordinances, laws, or regulations, which prevent, hinder, or delay the effect or application of this division or regulations established pursuant to this division. Regulations established pursuant to this division are not valid unless they are clearly consistent with a strict interpretation of this division and are necessary to effectuate the purpose of this division. The adoption of the regulations does not create any presumption of their necessity or validity.

5701. (a) If any pest exists on any premises, the secretary or the commissioner may hold any plant or other host or possible carrier which is, or may be, capable of disseminating or carrying the pest. The secretary or the commissioner also may hold the plants, other hosts, or other possible carriers on any premises within five miles of the premises on which the pest was found to exist. The secretary or commissioner shall notify the owner of the plant or other host or possible carrier, or his or her agent, of this action, and the issuance of any shipping permit or nursery stock certificate with respect to the plant or other host or possible carrier shall be refused and any such permit or certificate which has been previously issued shall be revoked.

(b) The distance from the premises at which a pest is found that the secretary or commissioner may hold plants, other hosts, or other possible carriers shall be the maximum distance that the secretary or commissioner determines the pest is likely to travel, but not to exceed five miles.

5702. If, in the opinion of the secretary or commissioner, the plant or other host or possible carrier is not infested or infected with the pest, or has been disinfected or cleaned so as to eradicate or control the pest, the secretary or commissioner shall in writing release it or issue the shipping permit or nursery stock certificate as the case may be.

5703. This article does not affect any other authority which is granted to a commissioner by Chapter 3 (commencing with Section 6501), Part 2 of this division.

5704. It is unlawful for any person to move any plant or other host or possible carrier from the premises on which a hold notice has been issued, except under the written permission of the secretary or commissioner and in accordance with the conditions which are stated in the written permission.

5705. (a) The secretary or commissioner may enter into compliance agreements with any person which provide for the movement of hosts or other possible carriers of any pest from one area of the state to another. These agreements shall establish the treatment, harvesting, packing, and handling requirements that may be necessary to assure that the hosts or carriers are not infested.
(b) Violation of the treatment, harvesting, packing, or handling terms of a compliance agreement is unlawful.
(c) Any person who violates treatment, harvesting, packing, or handling terms in an agreement is also liable civilly in an amount not exceeding ten thousand dollars ($10,000). This remedy is in addition to, and does not supersede or limit, any and all other remedies, civil or criminal, that otherwise are available to the state.
(d) Any funds recovered by the department pursuant to this section shall be deposited in the Department

of Food and Agriculture Fund for use, upon appropriation by the Legislature, to cover costs related to the enforcement of this division.

6321. It is unlawful for any person to import into, or transport thereafter within, the state any plant, fruit, or vegetable which is known to be, or may become, a host of any species of the fruit fly family Tephritidae from any territory, state, or district where such species of Tephritidae is known to exist except under permit and regulation of the director if the director finds that the species is harmless to agriculture or that an effective treatment of the hosts eliminates fruit fly risk.

6322. Any plant, fruit, or vegetable which is known to be, or which may become, a host of any species of the fruit fly family Tephritidae, together with its containers and packing, shall be refused entry or transportation within the state.

6323. Any plant, fruit, or vegetable which is known to be, or which may become, a host of any species of the fruit fly Tephritidae, which is imported into, or transported thereafter within, this state shall be immediately destroyed at the expense of the owner or bailee unless it is imported or transported under permit and in accordance with regulations of the director.

Title 7 – Agriculture, Code of Federal Regulations

Chapter III – Animal And Plant Health Inspection Service, USDA

Part 301 – Domestic Quarantine Notices

Section 301.64 – Mexican Fruit Fly

Section 301.78 – Mediterranean Fruit Fly

Section 301.93 – Oriental Fruit Fly

Section 301.97 – Melon Fruit Fly

Note: Section 105 of the Federal Plant Pest Act (7 U.S.C. 150dd) provides that the Secretary of Agriculture may, under certain conditions, seize, quarantine, treat, destroy, or apply other remedial measures to articles that are, or that the Administrator has reason to believe are, infested or infected by or contain plant pests.

Overview Of Tephritid Fruit Fly Biology

Tephritid fruit flies are a group of small (1/5” to 1/3”) to medium-sized (3/4”) flies, with general body coloration that can be in the red, orange, yellow or black ranges. Their wings generally have brownish streaks, and may also display scattered dark spots.

Tephritid fruit fly eggs are slender, white, and have an elliptical shape, are less than 4 to 8 hundredths of an inch in length, and typically laid in batches of 3 to 40, under the skin of the host fruit. The larvae (=maggots) lack an easily distinguishable head region, are cylindrical in shape with stubby anterior and posterior ends, approximately ½” long, and creamy white in appearance. The contents of their guts are often visible through their skin, and large numbers can colonize the flesh of individual host fruits.

The puparium (pupa case) can be colored either dull white, dark brown or black, is just over an inch long and usually found in soil from 2” up to (rarely) 6” deep. All species are damaging to fruit and some Tephritid species will attack flowers and plant stems as well. The fruit fly host material (FFHM) for some of these flies includes several dozen tropical and temperate species of fruits.

Treatment And Harvest Schedules

Degree Days

Adherence to a treatment and harvest schedule, based on degree-days, provides a very high probability that the risk of fruit infestation by exotic fruit flies has been eliminated and allows growers, packers and shippers to move their product out of the quarantined area legally. Calculations based on average temperatures for each day of the month, using 30 years of climate data, are used to develop this treatment and harvest schedule for the duration of the quarantine.

This schedule takes into account the length of the exotic fruit fly’s life cycle throughout the quarantine period. Once it has been calculated, the schedule is distributed to each grower who has signed quarantine compliance and bait treatment agreements. Growers are then required to arrange and conduct their treatment and harvest plans in accordance with this information. The degree-days model used for the grower bait treatment and harvest schedule may be modified during the course of a quarantine.

Life Cycle Projections

The life cycle projection is updated every week using current daily air and soil temperature information. As actual temperature data is collected, the potential emergence dates of subsequent generations of the exotic fruit fly are recalculated and refined, to guide ongoing eradication and regulatory activities.

In some situations, sterile exotic fruit flies, if available, are released over an amount of time equivalent to two life cycles of the pest. Following this, fruit fly trap densities around each of the original exotic fruit fly find sites are increased to 80 McPhail traps per square mile in the core area and 40 McPhails per square mile in the surrounding eight square miles, for one additional life cycle (i.e., the third, often referred to as the"F3"). If no "feral" (wild and fertile) flies are detected, the infestation

will be officially declared eradicated. Only then, upon notification by the staff of the Exotic Fruit Fly Project , will the quarantine regulations be lifted.

Definition: Degree-Days

The total amount of heat required for an organism to develop from one point to another in its life cycle is calculated in units called “degree-days.” Temperature controls the developmental rate of all insects, including exotic fruit flies. These insects require a certain range of heat in the fruit to develop from egg to larva, and then in the soil to develop from pupa to adult. The amount of heat required to complete a given stage of an organism's development does not vary – the combination of temperature (between the upper and lower ranges of tolerance) and time will always be the same. This “physiological” time is often expressed and approximated in the units called "degree-days."

The degree days mathematical model incorporates the average temperature over time in a particular area of infestation, and that is used to calculate the length of an exotic fruit fly species’ life cycle. Day degrees are the product of the following formula, with all temperatures measured in ^{o}F:

[(Minimum Daily Temperature + Maximum Daily Temperature)/2] – ^{0}F optimal for the fly species = Day Degrees.

Definition: Life Cycle Projections

Determined by a life cycle formula utilizing degree-days. Exotic fruit fly development from egg to adult can be predicted by measuring the accumulation of degree-days through the daily monitoring of air and soil temperatures within the eradication area. This measurement is an approximation, and involves factoring in the various microclimates that may exist in the eradication area.

Each species of exotic fruit flies requires a defined number of degree-days to complete its development. Each developmental stage of an exotic fruit fly (i.e., larva, pupa, etc.) has its own total heat requirement (accumulated degree-days). Development can be estimated by accumulating degree-days between the temperature ranges of tolerance for exotic fruit flies throughout the season. The accumulated degree-days from a starting point (the date of the first fly find) can help predict when each developmental stage of the fly’s life cycle will be reached. When a certain number of days has passed – equivalent to a defined number of life cycles – with no feral exotic fruit flies found in traps, then the eradication efforts can be declared a success and the quarantine restrictions on regulated commodities removed.

Project Initiation

Extensive scientific research and the recommendation of scientific advisory panels form the basis for the enactment of an exotic fruit fly quarantine.

Triggers* for the State of California For All Exotic Fruit Fly Programs (except as indicated below):

- one mated female, presumed or known to be mated to a wild male, and/or
- two or more flies within three miles and one life cycle, and/or
- two or more life stages
- ***except*** that for **methyl eugenol-attracted** flies (including but not limited to **Oriental fruit fly, guava fruit fly and peach fruit fly)**:
    - **in urban areas** – 8 or more adult flies (of either sex) must be detected within an area with a 3 mile (4.8 km) radius within one life cycle (all detections must be more than 4 ½ miles (7.2 km) from any commercial host production area), or
    - **in rural or commercial host production areas**
        - 6 or more adult flies must be detected within an area with a 3 mile (4.8 km) radius within one life cycle, or one mated female, a larva, or a pupa is detected, or
        - in any area — one fly (any life stage) is detected which is determined to be associated with a current fruit fly regulated area.
- **PILOT: for Mexican fruit fly (MXFF):**
    - trapping up to 4 flies (males or unmated females) will initiate the placement of an official Hold Notice on each property where the fly was trapped and all properties within a 200-meter radius of it,
    - trapping 5 or more MXFF of either sex will trigger a quarantine program,
    - detecting MXFF pupae, larvae or eggs on the fly find property or trapping a mated female MXFF will trigger a quarantine program, and
    - eradication treatments alone will continue to be initiated when only 2 to 4 MXFF, either males or unmated females, are trapped.

Regulatory Response to an Exotic Fruit Fly Find

***Trigger – the definition of a reproductive population may vary in other localities and under special conditions. Refer to current Action Plans for information on various Tephritid species.**

Following initial detection trapping of an exotic fruit fly, before the triggers for a quarantine response are reached, a regulatory response team (including representatives of CDFA, USDA and the office of the local county agricultural commissioner) proceeds with the following activities in the relative area of the initial fly find(s):

- A **Hold Notice** is issued to the fly find property and any adjoining property with FFHM
- Contact is made with the:
    - County Office of the Agricultural Commissioner public affairs officer
    - State and federal regulatory agencies
    - Agricultural associations and/or Farm Bureau
- A "quarantine incident" results when the trigger has not been reached but hold notices are issued on the fly find properties and eradication begins
- If the trigger is reached in terms of fly finds:
    - an infestation is declared
    - local information lists (e.g., business locations that handle FFHM, residential areas, agricultural properties, geographical landmarks, major roadways, etc.) are generated by field staff
    - maps are made of proposed boundaries
    - a written delineation is produced of the geographic area(s) involved
    - This information is transmitted to quarantine staff at CDFA, USDA/ APHIS/PPQ, and those county agricultural commissioner(s) whose

jurisdiction(s) is/are in the quarantine area(s)
- The movement of possibly compromised fruit (i.e., FFHM produced or packed within a **4.5-mile radius** of the fly find) is stopped once the quarantine is enacted by state/federal regulations and is being enforced
- No unprocessed fruit is allowed to leave the core fly find site (1 mile^2) for the duration of the quarantine
- Door-to-door surveys begin with distribution of exotic fruit fly information pamphlets, as well as voluntary homeowner questionnaires, in a 4 – 4 ½ block radius surrounding each fly find
- A phone tree is set up with all affected growers and establishments to notify them of imminent meetings within the quarantine area, which will provide them with regulatory information and provide each of them with an opportunity to sign a compliance agreement
- In addition, any packer or processor who is located either inside or outside the regulated area, *and who is accepting fruit from within the quarantine,* is provided with regulatory information and signed into compliance
- Treatment programs are implemented for regulated commodities produced within the quarantine area
- If FFHM has left the new quarantine area (i.e., the 4.5 mile radius of the fly find) and may be compromised, it is destination-tracked back 30 days **prior** to the fly find
- Trace-back information on FFHM shipments is sent to our trading partners both foreign and domestic
- FFHM groves are plotted showing their relation to the fly find site(s)
- A fruit tracking system is set up with packers, utilizing either:
  - A certificate or stamp system for packers, or
  - Issuance of certificates to allow movement of FFHM (530's or 540's)
- A facility is located to serve as the regulatory headquarters site
- A telecommunications center is established at the same facility (phone/fax/e-mail/Internet connections)
- A permit is requested from CalTrans and/or Department of Public Works to install roadway signs (in English and other appropriate languages) restricting movement of host fruit, to be displayed alongside public thoroughfares (i.e., state and interstate highways and freeways)
- The quarantine area is continually monitored by quarantine field staff for:
  - Ongoing compliance
  - Area harvesting activity

Safeguarding

Hold Notices:

Once a new, exotic fruit fly quarantine is enacted in an area, it is vitally important to halt the movement of all possibly compromised fruit fly host material within the vicinity of the fly find. A Hold Notice is issued to each fly find property. The movement of all potentially infested fruit (i.e., any fresh FFHM located within a 4.5-mile radius of the fly find(s), regardless of whether it was grown or brought into the area, and exposed to possible infestation) is stopped immediately.

For the duration of the quarantine, no unprocessed (i.e., fresh) fruit is allowed to leave the core fly find site (a 1 mile^2 area). Door-to-door fruit fly information distribution begins in the affected area(s). Project staff may interview

homeowners using a voluntary questionnaire (see form in Appendix 5D) to investigate possible sources of infested FFHM transported into the area prior to the fly find.

Primary Initial Contacts:

Regulatory Response

Before a wild, exotic fruit fly is trapped in a county, there are typically one of two different situations present:

- either an ongoing quarantine project is currently in place with regulatory staff handling an exotic fruit fly infestation, or
- there is no current quarantine activity and hence no staff already organized to handle a new fly find problem.

If the former scenario is present, the staff would be mobilized to handle the new threat; if the latter situation is the case, local CDFA, USDA and county officers will initially handle the implementation of a quarantine. It is for the personnel involved in the latter situation that this manual should have the greatest utility.

When a fruit fly quarantine staff is already in place, a new fly find will initiate a regulatory response, with the primary, initial contacts typically made by the current or designated CDFA regulatory agricultural biologist on staff, working with the USDA Regulatory Section leader. They must quickly inform the agricultural commissioner, of each county impacted by a proposed quarantine, that a fly find report has been received for their area. The county involved requests that the State initiate an emergency quarantine, to be followed by state and federal regulatory legislation mandating it.

Determination of Quarantine Boundaries

Utilizing established procedures both the CDFA and USDA officers, in conjunction with their staffs, must begin map delineation of the proposed quarantine area. During this process, input is sought from county, state and federal authorities. Natural and manmade boundaries (i.e., mountain ranges, large bodies of water, freeways, etc.) can be incorporated into these boundaries. Typically, a 3-mile wide buffer zone within the quarantine lines is considered a high-risk area from which the infestation could spread. The proposed quarantine area, which can be drawn on currently published maps and aerial photographs, is then submitted to county, state and federal departments responsible for agricultural quarantines.

Regulatory field officer teams perform research, survey and reconnaissance activities to gather location information on those businesses and establishments that will need to be informed of and regulated for the required compliance during the quarantine.

Some strategies to ensure the success of this information gathering process are mentioned in later chapters of this manual. Such activities can involve two or more officers per vehicle driving throughout the quarantine area recording the sites that will be impacted by the quarantine, to get a sense or impression of the major food and agricultural concerns present. This activity should be concurrent with and may affect the delineation of the boundary marking process. There is no better substitute for firsthand viewing of the quarantine zone.

Tracebacks of Recently Shipped FFHM

Equally as important for domestic and foreign markets is the determination of where, when, how and by whom FFHM was shipped from the quarantine zone *before* it was declared under regulation. It is important to check shipping records for the previous one month, or 30 days prior to enacting a quarantine, and then alert each of the destination establishments of the new quarantine.

There is some risk of new infestations being caused at these locations if infested, recently transported, FFHM has moved outside the quarantine boundaries. Notifying trading partners immediately of these concerns demonstrates a quick action response to the fly find threat and its potential ramifications.

Regulating Public Roadways – Fruit Fly Quarantine Signs

Public highways and other major thoroughfares need to be posted with fruit fly quarantine signs to alert travelers moving into and out of the regulated area. To arrange sign placement along roadways, CalTrans, the public highway authority in California, must grant permission. Encroachment permits, work orders, and maps will be required for permission and assistance in erecting signs. For residential areas, city public works managers are the appropriate contacts.

For all of these agencies, certain sign size and height restrictions will be imposed. Signs typically can be 2' x 4' or 4' x 8' in size. Depending on the length of time they'll be in place, as well as local weather conditions, signs can be constructed of plywood, sheet metal, or medium density fiberboard (MDF) materials.

Examples of wording on signs, in both English and Spanish, used for previous California fruit fly quarantines are shown here.

ENTERING FRUIT FLY QUARANTINE AREA
NO HOMEGROWN FRUITS OR VEGETABLES
TO LEAVE AREA

ENTERING FRUIT FLY QUARANTINE AREA
NO FRUITS OR VEGETABLES
TO LEAVE THIS AREA
VIOLATORS MAY BE CITED

DO NOT MOVE BACKYARD FRUIT
ENTERING A FRUIT FLY QUARANTINE AREA

LEAVING FRUIT FLY QUARANTINE AREA
NO FRUITS OR VEGETABLES
BEYOND THIS POINT
VIOLATORS MAY BE CITED

DO NOT MOVE BACKYARD FRUIT
LEAVING A FRUIT FLY QUARANTINE AREA

LEAVING FRUIT FLY QUARANTINE AREA
NO HOMEGROWN FRUITS OR VEGETABLES TO LEAVE AREA

NO SAQUE FRUTA DE SU HUERTA
ESTA SALIENDO
DE UNA AREA DE CUARENTENA
DE LA MOSCA DE LA FRUTA

NO SAQUE FRUTA DE SU HUERTA
ESTA ENTRANDO
A UNA AREA DE CUARENTENA
DE LA MOSCA DE LA FRUTA

Permits and Certificates to Move Commodities

Regulated articles can only move from a quarantine area if a limited permit has been issued. A separate permit must be issued for each load and accompany each shipment (see examples below of federal forms #530-limited permit and #540-master certificate). This is done to facilitate fruit tracking should destination and distribution information be required for commodities recently shipped from a newly quarantined area.

No. X-000000

Information requested is needed to determine if a permit can be issued (7 CFR 301).
Form Approved: OMB NO. 0579-0088.
See reverse side for additional information.

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE

LIMITED PERMIT

This permit authorizes the movement of the NONCERTIFIED articles described below to a specified destination for limited handling, utilization, or processing, or for treatment. The movement of such articles is regulated by Federal or State cooperative domestic plant quarantines.

1. DATE ISSUED	2. VOID AFTER

3. NAME OF CONSIGNOR

4. SHIPPING POINT

5. NAME AND ADDRESS OF CONSIGNEE

VOID

6. VEHICLE LICENSE NO. & STATE	7. R.R. CAR INITIALS

8. DESCRIPTION

A. Quantity	B. Article	C. Remarks

9. SIGNATURE OF ISSUING OFFICER

ENDORSEMENT

The above described shipment was received by the designated consignee, and was handled in the manner approved under the provisions of all applicable Federal or State cooperative domestic plant quarantines.

10. DATE RECEIVED

11. SIGNATURE OF DESTINATION OFFICER

PENALTY FOR MISUSE OR ALTERATION (7 USC 163)

PPQ FORM 530 (APR 89) **PART 1 - CONSIGNEE'S COPY**
Previous edition obsolete.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1989—622-639

FORM APPROVED
OMB NO. 0579-0088

Information requested is needed to determine if a permit can be issued (7 CFR 301).
See reverse side for additional information.

X 000000

U.S. DEPARTMENT OF AGRICULTURE
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

CERTIFICATE

This certificate must be surrendered to the consignee at destination of shipment

The articles described below are certified under all applicable Federal or State cooperative domestic plant quarantines.

1. DATE ISSUED	2. VOID AFTER

3. NAME OF CONSIGNOR

4. SHIPPING POINT

5. NAME & ADDRESS OF CONSIGNEE

6. VEHICLE LICENSE NO. & STATE	7. R.R. CAR INITIALS & NO.

8. DESCRIPTION

A. Quantity	B. Article	C. Remarks

VOID

9. SIGNATURE OF ISSUING INSPECTOR

PENALTY FOR MISUSE OR ALTERATION (7 USC 163)

PPQ FORM 540 (APR 89) *Previous edition obsolete.* **PART 1—CONSIGNEE**

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Databases and Data Collection and Processing

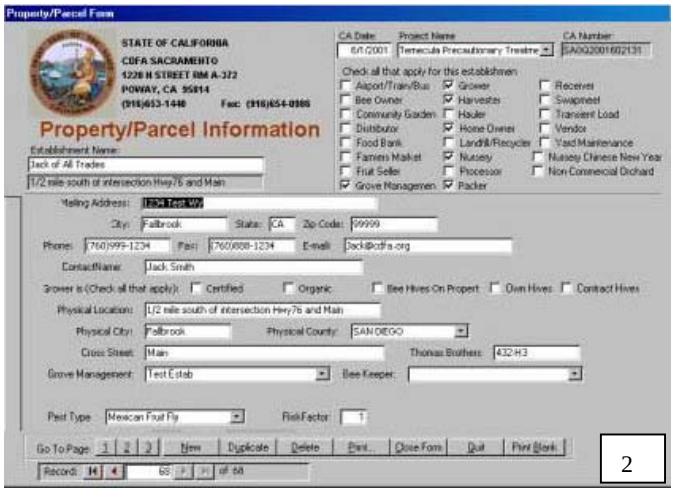
The project's regulatory unit must perform daily computer input of compliance and treatment information from field officer site visit records. Data files (both computerized and written) are then stored, archived and utilized for subsequent report generation, whether by CDFA, USDA or county agricultural commissioner(s).

Note: As a priority consideration, a common standard unit of commodity *weight* (i.e., pounds) should be used from the very inception of data entry activities so that any future weight conversion confusion is avoided.

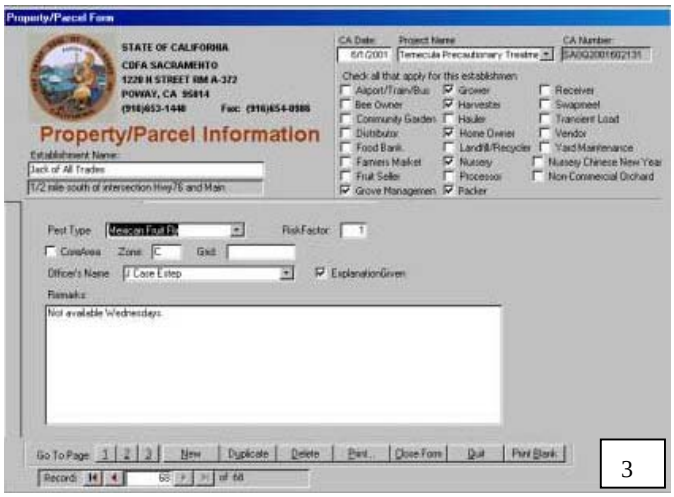
A Microsoft *Access*® database input form for fruit fly project regulatory field data has been developed by the Pest Exclusion Branch of CDFA. This cumulative information/storage and retrieval system becomes the database that can be accessed by various report-generating applications.

Three input "screens" are utilized for capturing data from regulatory documents filled out by field officers during quarantine activities (see initial screen 1, which is followed by screens 2 through 4 below; all contain fictitious data). Each of these screens displays the same header and footer information for the regulated establishment, but varies according to the type of information that can be input on each. The major categories of information capture include: establishment, regulatory activity, regulatory treatment, vendor, yard maintenance, crop identifier, location list, and limited permit data. If the data is available, all cells should be filled in.

1



2



3

4

Project Organization And Design

Detection

After an initial wild, exotic fruit fly has been trapped in California by a state or county trapper, the specimen is dispatched by ground/air transport to one of the systematic entomologists in either the Bell or Sacramento laboratory facilities. A pest damage report (PDR) is prepared which contains vital information on the fly's identification and find location. This is distributed to PPQ, State and county offices, to advise key personnel of the possibility of impending quarantine actions. Trapping density is increased within 24 hours around the fly find area in accordance with established guidelines.

Delimitation Trapping

The trigger that must be reached before a quarantine is declared varies between exotic fruit fly species, and is determined partially on the basis of the number and types of flies found (males, mated/unmated females, larvae, pupae, etc.) within a period of increased trap monitoring frequency (usually every 24 hours for one week following the initial fly find).

The boundaries of the quarantine area will be established by the locations of fly finds, and take into consideration local agricultural and nursery production, packing and shipping sites. For sites within the quarantine boundaries, teams of federal and state regulatory officers—including temporary staff hired at the project offices—will access pesticide use records from county and Farm Bureau sources. These will provide possible locations for regulatory oversight and monitoring during the quarantine.

This information gathering activity will be augmented by visual surveys of properties, establishments and businesses. Files will be created and maintained with critical information, such as acreage containing FFHM and total property acreage, number and types of host trees or plants (including variety), exact street and/or GPS location of regulated orchards or growing sites, and the name of the owner and/or property manager.

Quarantine Trigger

When the trigger is reached, the county agricultural commissioner in the affected area formally requests via written communication that CDFA enact a quarantine. A joint decision is made by CDFA and USDA to declare the imposition of a quarantine. PPQ prepares a fruit fly report with all pertinent information, which is distributed through USDA/APHIS/PPQ state, regional and headquarters offices.

Notification of All Stakeholders and News Media

Contacting media representatives is a priority, with USDA informing legislative and public affairs staff, and CDFA initiating contacts with local county government authorities. The location of the infested area, and all affected or possible stakeholders, needs to be communicated quickly and accurately.

Contact Call List

- County Agricultural Commissioner
  - County Board of Supervisors
  - Local government officials
  - County agencies
  - Other assigned entities
- Grower Associations
  - Associated members
- Farm Bureau
  - Associated members
- UC Farm Advisor's Office
  - Minor crop growers
  - Organic crop growers
  - Certified crop growers
- Cal-Trans
- Local Law Enforcement
- Others as necessary – to be determined by Project Director

Project Setup

When locating and evaluating suitable facilities for quarantine headquarters, consideration should not be limited to strictly sufficient phone, power and communications options but, additionally, general office and parking space, all the while factoring in security needs, balanced with appropriate public access by foot or by car.

Staff

An effort should be made to anticipate the number of federal and state permanent and temporary officers who will be required to not only set up the initial project, but to maintain an ongoing one. Job openings are advertised via the appropriate media and government agency listings. Applications are then collected and interviewees screened for positions (See sample at the end of this chapter of correspondence to a non-hired candidate).

Training and Administrative Tasks

Once the office site has been chosen, utilities will be connected and administrative personnel brought in to address project needs. Federal Rapid Response Team members or staff from PPQ's domestic temporary duty (TDY) roster will be contacted through supervisory channels to determine individual availability for the new quarantine.

When these team members arrive, federal and state project leaders will assess the qualifications of each staff member in order to make appropriate decisions on work assignments. TDY personnel and local, state and temporary new hires will be assigned to survey and delimit areas of potential infestation, prepare compliance agreements with growers, packers, and shippers, as well as various other duties as required.

Project Maintenance and Meetings

An important aspect of the initial phase of quarantine declaration is the need to inform all stakeholders of the quarantine's enactment, and the possible consequences with regard to harvesting and selling unregulated, or uncertified or untreated crops.

In addition, growers or producers must be given regulatory options to move their product(s) in a manner that minimizes the financial impact of the quarantine. Two of the methods used to accomplish this include public grower meetings and the preparation and distribution of informational flyers and media announcements (including brochures with responses to frequently asked questions).

Planning Staffing Needs

The project leader is usually selected by the CDFA Pest Exclusion branch chief, division director, or the secretary of the department. If the size of the project warrants it, the project leader may designate a number of assistant section leaders to run administrative support, regulatory activities, and public and media relations and information distribution. In practice, one person has often been assigned several large areas of responsibility.

Each section leader reports directly to the project leader. Initially personnel will be drawn from the staff of CDFA's Plant Health and Pest Prevention Services, the local office(s) of the county agricultural commissioner, and rapid response/TDY teams of USDA / APHIS / PPQ.

- **CDFA and USDA Project leaders**
  - Establish a base of operations
  - Organize management structure
  - Establish operational protocol
  - Arrange for notification of affected individuals, agencies or groups, including:
    - State, county and city political officials
    - Federal cooperators
    - Cooperating state (e.g., Worker Health and Safety, Pesticide Registration) and county, (Pesticide Use Enforcement) government agencies)
    - Federal cooperators (local and regional PPQ offices and rapid response teams)
    - Other state agencies (Environmental Protection Agency)
    - Special interest groups
  - Ensure appropriate public notification
  - Authorize mobilization of emergency equipment and supply inventory
  - Identify preliminary technical support needs
  - Provide daily information reporting system
  - Assign staff member to maintain chronological history of project activities from inception to end
  - Provide information for preparation of budgets
  - Provide periodic and final project reports to technical advisory representatives
  - Obtain regular timely reports from and supervises all section leaders
  - Assist in the supervision of project staff
  - Design and modify existing forms according to the needs of the program
  - Participate as a USDA or CDFA representative at grower meetings
  - Communicate between the Project and CDFA and USDA headquarters and/or regional or district offices
  - Evaluate equipment needs and authorize purchases
  - Make initial contacts with utility providers
  - Inform staff of both CDFA and USDA policies and procedures

- **Administrative Support**
  - Arrange for facilities, space and furniture
  - Furnish equipment (land line and mobile telephones, computers, photocopiers and fax machines
  - Arranges for vehicles, vehicle maintenance and vehicle safety training for staff
  - Establishes and maintains inventory of administrative supplies, manuals and forms
  - Ensures appropriate hiring practices and paperwork
  - Acts as liaison to the Division of Administrative Services (accounting, purchasing, office and business services, human resources, etc.)
  - Processes requests for travel advances, purchase orders, invoice vouchers and travel claims, etc., as necessary
  - Initiates contracts and cooperative agreements
  - Maintains records of expenditures
  - Maintains vehicle inventory and records
  - Provides badges and identification cards
  - Maintains time and attendance records for seasonal and permanent employees
  - Arranges travel/hotel reservations, as needed

- **Regulatory Field Officers**
    - Coordinate activities with federal and county quarantine personnel
    - Issue Hold Notices on affected properties
    - Propose emergency regulations, actions and quarantine boundaries
    - Notify affected common carriers, agriculture and other industries of regulated items
    - Notify state highway departments, weigh stations, etc., as appropriate
    - Make available approved quarantine treatment procedures to all affected/concerned groups
    - Implements compliance with and oversight of quarantine treatment activities and commodity safeguarding activities
    - Maintains or identifies fumigation facilities, if needed
    - Provides for continuing regulatory action, if needed
    - Contact local landfill for disposal of all seized FFHM
    - Maintain a secure holding container/bin (with a lid) for seized FFHM on-site at Project headquarters
    - Obtain information from growers participating in the bait treatment program
- **Public Information**
    - Prepares press releases for distribution to phone banks staff and the media, as needed, including foreign language releases
    - Makes progress reports to local media
    - Acts as media liaison
    - Provides stock footage, prints, graphics, maps, and other displays as needed
    - Arranges interviews
    - Arranges meetings with and mailings for the general public
    - Cooperates with treatment personnel to provide clearly written treatment handouts to affected residents
    - Cooperates with the medical coordinator and treatment leader regarding notification of local medical personnel and facilities
    - Identifies special interest groups, such as affected industries, local clubs, associations and environmental groups to arrange presentations to these groups

Roles and Responsibilities During an Exotic Fruit Fly Outbreak

Technical and administrative support staff performs the following functions:

- Assist in the acquisition of office space, temporary buildings and structures, furniture
- Provide input on design of forms and database features
- Provide information to stakeholders by telephone and in person
- Obtain information from growers participating in the treatment program
- Coordinate work schedule and make assignments for treatments and observations
- Initiate record-keeping system, computer-based and paper files
- Revise existing forms
- Act as communication liaison between CDFA and USDA
- Communicate with operators of aerial spray applications and professional grove managers
- Oversee monitoring program in the event of a preemptive treatment option
- Schedule staff observations of 1st and 2nd treatments for growers under preemption plan
- Obtain recommendations from staff and summarize as agenda items for daily meetings
- Public relations, including call screening and referral to project supervisor as appropriate
- Facilitate communication and information sharing between state and county
- Close out project at conclusion, duties including taking inventory, storage of supplies and forwarding of records

(This is not intended as comprehensive, but typical of a duty roster, which could expected to be assumed by a person serving in this capacity during a quarantine)

Hiring Personnel

- Hiring Seasonals - By law, the State must give preference to qualified applicants receiving Aid to Families with Dependent Children (AFDC). Your local employment Development Department (EDD) office must be given ten working days to refer suitable applicants, so it is recommended that you begin the process early. You can hire people immediately who have worked as seasonal employees at any level in the same class for CDFA within the past year without advertising with EDD
- AFDC and Affirmative Action Policy - In order to comply with State AFDC and Affirmative Action policies, follow these procedures when hiring seasonals:
    - Advertise the positions with your local EDD office at least ten days before you plan to fill the positions. You may not hire non-AFDC during the waiting period unless they are former employees returning at any level in the same class within a year. To advertise the position, call EDD, give them a job description and request AFDC referrals. It is advisable to follow up with a written job description outlining all important job qualifications to your EDD contact person
    - It is not the intent of the law to force the hiring of unqualified individuals. You may ask your EDD contact to screen applicants that do not meet your minimum requirements in personal appearance, possession of a driver's license, job references, etc. You may give applicants tests to determine their skills or require local job references. It is

advisable to keep written record of standardized interview questions or test results for each applicant

- If you do not get enough qualified applicants to meet your needs after ten days, or if your EDD contact states that s/he has no qualified applicants to send you, then you may hire non-AFDC applicants that meet the same standards required of AFDC applicants. Hiring non-AFDC applicants must be justified on a Form 100-264. You must list any AFDC applicants that failed to meet your minimum requirements
- Applicants who are hired must complete all the forms in the hiring packet except Form 100-264 and Form 13-028, which are filled out by the employer. Completed packets are sent to Human Resources at headquarters before the seasonal starts work
- Obtaining Personnel from Other Governmental Agencies, State agencies (Cal Trans, Forestry, State Police, Parks and Recreation, Fish and Game, Water Resources, Highway Patrol) – to obtain personnel, an emergency proclamation is declared by the Governor, through the Secretary's Office
- California Conservation Corps – CCC personnel may work under contract for services or may be reimbursed informally for lunch or gas. Sometimes there is no charge. Informal arrangements should be cleared with your program supervisor before you commit to them
- USDA – a cooperative agreement is negotiated at the Deputy Director level
- County Agricultural Commissioner's Office – we may contract for trapping and/or treatment or use a cooperative agreement in which they supply supervision and we supply spray personnel and equipment

Procedures For Managing And Communicating A Quarantine

Critical Tasks

The following table identifies a number of critical tasks and characterizes them as three phases:

P = Preplanning

Q- = Fly Find, indicating activities prior to a the start of a quarantine *(unless a mated female is trapped which is, itself, a quarantine trigger)*

Q+ = Quarantine Period, denoting number of days after the start of a quarantine

The Q- phase describes activities that occur between a wild, exotic fly find and the implementation of a quarantine and, in an actual action plan, should list steps as occurring a certain number of days before the start of a quarantine (e.g., "Establish spokesperson responsibility: Q-3 days").

PHASE	TASK	DESCRIPTION
P	Establish quarantine planning team	At a minimum, include: • USDA Area Representative • CDFA Area Representative • County Agricultural Commissioner • County Farm Bureau • Farm Advisor • Major Commodity Interests (e.g., Avocado Commission, Citrus Research Board, etc.) A contact phone tree should be established to alert all members of this team in the event of a fly find.
P	Establish consensus on "chain of command" for public communications	USDA, CDFA and County need to agree on "chain of command" issues that will keep all parties on the same page in terms of the quarantine plan, who will speak to what issues and similar critical communications.
P	Establish public relations spokesperson(s) and who they report to; establish a public communications plan	Based on the above chain of command, identify an "on the ground" spokesperson (or spokespersons), through which all media relations should pass. This person should be the clearinghouse for messages to all targets, not just media; e.g., growers. This assures consistent messages, rumor control and less confusion. This individual is not necessarily the decision-maker, but will often be the conduit from the decision-makers to various audiences. The team should also establish a communications blueprint that outlines tactical plans for such things as media alerts and media conferences, public hearings and direct mail information.
P	Technical check: treat protocol development, instructions	The team should log information on all commodities in the region that could be affected by an exotic fruit fly quarantine and then check with USDA to ensure that treatment protocols for all are available; those that are unavailable should be developed as soon as

		possible. Treatment protocol education and training materials should be prepared and discrepancies in treatments (continued on next page) (e.g., varying label instructions) identified and fixed.
P	Prepare basic, background materials	All written materials that can be prepared in advance should be (e.g., basic media statement on fly find; background on protocols and procedures in a quarantine; how quarantine decisions are made; background on the particular exotic fruit fly species or other pests involved.
P	Develop target stakeholder list	The team should assemble specific lists and contact names for all stakeholder groups. Minimally, in addition to agency staff lists, this should include: • Grower Associations • Media (consumer and trade) • Elected officials • Government departments/agencies (e.g., Dept. of Public Works) • Chamber of Commerce These lists should be stored in a database format in a manner that permits rapid communication when necessary. A database of e-mail addresses should be considered.
P	Facilities planning	The group should plan and even specifically locate potential facilities support for the CDFA office and phone bank as well as potential sites for treatments identified as appropriate in the protocol (e.g., fumigation sites). Work with USDA/CDFA on a "roll out" plan to establish a command center within 24 hours of a quarantine decision.
Q-7	In the event of a fly find…	Develop a Q-timeline based on the potential of a quarantine being established in an estimated number of days. Work backwards from that date to identify appropriate tasks to be completed prior to the quarantine announcement.
Q-7	Information and strategy session	Assemble team in person or via phone; update all team members with current information; establish initial task list and also initial project strategies.
Q-6	Prepare public statement	PR spokesperson should immediately prepare a general statement on the situation: facts about fly find; next steps. No speculative statements. Also should prepare a document outlining most probable questions and how to answer them.
Q-6	Determine initial media/public communications strategy	With stakeholder lists ready, determine when to "go public" with the pest problem, based on the theory that a short, public statement can be effective in minimizing fears among growers, the media and other audiences. Establish a target for a media event, if necessary, depending on the severity of the potential problem. Reproduce background pieces and (continued on next page) prepare them for distribution as necessary.

Q-5	Technical information	Prepare information for use by growers, handlers, wholesalers and other industry audiences that clearly explains treatment protocols, compliance agreements and other technical requirements. Most of this information will have been prepared in advance and will only need customization depending on the particulars of location.
Q-5	Develop quarantine map strategy	Determine how the quarantine map will be prepared, and when it is likely to be available. Determine whether to offer general area parameters, such as including zip codes.
Q-4	Program plan	Draft as completely as possible a program plan that can be communicated to key audiences as the quarantine begins. Offer timing, activities and deadline information, contact names and phone numbers, treatment information and other necessary support to be available at the Q date.
Q-4	Public communications plan	Using the public communications plan established during the planning phase, produce details on an initial communications plan that indicates how target audiences will be reached (e.g., full-page ad for alert, public hearings, etc.) It is highly recommended that a Web site, specifically addressing a particular quarantine, be developed to keep all stakeholder groups informed and pulling information from the same page/source. Such Web sites have been used successfully in the past and information on establishing a site to have on "standby," but unused, should be obtained.
Q+0	Public Announcement	Alert stakeholder groups to the problem based on the communications plan (e.g., press conference, e-mail distribution, advertising, legislative calls).
Q+1-3	Ongoing communications	Establish and promote necessary meetings; e.g., growers, handlers, general public hearings, etc., based on the plan developed in advance. Remain available to the media and other information seekers.
Q + Ongoing	Program implementation	Government agencies will run the program based on their custom design for the quarantine; use of the CDFA/USDA ***Exotic* Fruit Fly Regulatory Response Manual** will be vital, and will include, in addition to basic, operational procedures, such things as traceback, certification and enforcement information.
Q+ Ongoing	Team communications	The team should establish a firm schedule of conference calls or meetings, particularly in the early onset of the quarantine. These meetings can be used to map out strategy and also serve to keep all organizations on the same page in terms of approaches and public information.

Regulating Stakeholders -- Growers

Initial Contact with the County

Procedures differ in California from county to county regarding issuance of Special Local Need permits (SLN #CA-830012 for malathion products and SLN #CA-960016 for Diazinon products), Amended Section 18 Emergency Exemptions (#99-38, for Spinosad products), Operator/Site I.D.#'s, Notices of Intent to apply a pesticide (NOI's), Pesticide Use Reports, and required licenses. Safety training for each applicator and the policies on issuing County Violations at a bait treatment site also vary.

A project supervisor can contact the county agricultural commissioner's pesticide use enforcement office regarding these issues and any other possible aspects of pesticide regulation enforceable by the county. A Project Policy Statement in reference to county standards (included in "Growers – Regulatory Procedures") must be given to each grower undergoing bait treatment. This will avoid confusion on the part of the grower in terms of the county's involvement regarding necessary procedures to ensure completion of the bait treatment program.

SLN and Section 18. Issued by the county. Depending on an individual county's policy, if the grower currently has an out-of-date SLN or Section 18, it may be required that the most current SLN or Section 18 be issued. The treatment may still occur using the older SLN or Section 18, but either must be updated as soon as possible. Project officers can call the county office to inform them of the need for issuance of a current SLN or Section 18. If the grower has <u>not</u> previously treated, then a treatment <u>cannot</u> occur without the SLN or Section 18 having been issued. The SLN or Section 18 for a new grower will be issued by the county when they issue the Operator (Site) I.D. number.

Chemical. If the grower doesn't have malathion from previous treatments, s/he needs to contact the county office for an Operator (Site) I.D. number. This will allow the grower to purchase the appropriate pesticide formulation from a supply house. Project officers will provide a list to growers of local retail/wholesale sources of pesticides.

Operator [Site] I.D. number: at the time the county issues the SLN and/or I.D. number, they will also be issuing Pesticide Use Report Forms. The County Inspector will explain fully the use of this form to the grower.

Initial Project Officer Contact with Growers in the Core Area

After the quarantine area has been established, contact growers in the "**core area**" (one square mile around the fly/larval find).

- When a situation exists where a portion of a property is both within and outside a core area boundary, the decision to regulate must be consistent with the regulatory status of neighboring properties. Properties located on the perimeter of the core area are not necessarily regulated in the same manner as those proximate to the initial fly finds.
- Advise the grower of the quarantine and provide the grower with a quarantine map, host list, and information pamphlets on the exotic fruit fly.
- Explain regulatory policy regarding the movement of FFHM from the "core area" for the duration of the quarantine.
    - No bait treatment is allowed in the "core area"
    - <u>All</u> harvested FFHM must be processed, fumigated or undergo cold storage treatment at an approved facility
- Provide contact information regarding USDA-approved fumigation and cold storage facilities. If a list of <u>all</u> processors in the surrounding area is available, provide that as well. If a list is not available, encourage them to contact the county agricultural commissioner's office for information on local processors.

- Explain and issue a Hold Notice on all FFHM grown on the property.
- Explain and issue a Grower Compliance Agreement if grower has the intention of undergoing processing, fumigation or cold storage treatments.
- Inquire about other agricultural properties the owner may be utilizing for crops.
    - If any of these properties is **inside** the "core area," issue all Hold Notices when initial contact is made with the grower (who may or may not have time to take you to each of his/her growing sites). Emphasize again that no bait treatment is allowed within the "core area". Though additional Grower Compliance Agreements for each of these properties are not required inside the core, the address of each additional property should be noted on the Compliance Agreement under “Location of Crop.”
    - If any property is **outside** the "core area", refer to procedures indicated for Growers outside the core area" (see below). In that situation, additional Grower Compliance Agreements for each property are also not required. The address of each additional property should be noted on the Compliance Agreement under "Location of Crop".

Growers Outside the Core Area

After the quarantine has been established, and the "core area" growers have been notified, contact growers outside the "core area."

- Advise the grower of the quarantine and provide the grower with the quarantine map, host list, and information pamphlets on the exotic fruit fly.
- Explain Regulatory policy regarding the movement of FFHM from the property for the duration of the quarantine.
- Explain processing, fumigation, and cold storage options. If requested, provide contact information regarding approved fumigation and cold storage facilities. If a list of all processors in the surrounding area is available, provide that as well, if requested. If a list is not available, encourage the grower to contact the county agricultural commissioner’s office for information on local processors.
- Explain bait treatment program option and give the grower a copy of "Growers-Treatment/Permit Procedures" (see below).
    - Minimum 30-day Program/Harvest Timetable
    - Give grower copy of sample Bait Treatment calendar.
    - Minimum term of treatment is 30 days. The term of treatment can be longer depending on the season of the year, since average monthly temperatures can be higher or lower over the course of a year and the fly’s life cycle can be correspondingly shortened or lengthened due to these factors.
    - Explain treatment scheduling (6-10 day application window per treatment)
    - Inform grower that at the conclusion of the term of treatment, if harvest cannot be completed within 10 days of last certified treatment, treatments can continue at 6-10 day intervals.
    - Permits will be issued as long as treatments continue during the harvest period.
    - Permit procedures:
        - Explain two types of permits (single-day and multiple-day).
        - Emphasize 3-day preharvest interval in relation to the issuance of permits if treating under Section 18 guidelines for certain crops
    - Chemicals/sprayer & pesticide safety
        - Advise the grower s/he is responsible for furnishing all chemicals and spraying equipment.
        - Provide the grower with chemical source list and a copy

of the "Exotic Fruit Fly Plant Quarantine Treatment Information" sheet (County Memo).
    - Explain to grower any necessary paperwork that may required by the county in order to use/obtain malathion (S.L.N., Section 18 Emergency Exemption No. 92-34, Operator/Site I.D.#, and Pesticide Use Reports).
    - Explain to the grower the requirement of the county agriculture commissioner's Pesticide Division, that all safety precautions be observed, as indicated on the pesticide label.
- Applicator
    - The grower is responsible for the application of the pesticide. Project personnel are not allowed to apply the pesticide, only monitor its use.
    - If an employee, or someone other than the grower, will be applying the pesticide, refer to the County Memo and advise the grower to contact the county regarding the required safety training.
- Explain and issue Treatment Agreement if the grower has the intention to undergo bait treatment.
- Schedule time and date for project officer to monitor the first treatment.
- Refer to Project phone number on the paperwork and encourage the grower to call if there are questions about treatments or if changes in the scheduled treatment dates are necessary.

Aerial Treatment Coordination

In large commercial areas, one person should act as aerial coordinator with the responsibility of scheduling and coordinating all aerial treatments, seeing that proper records are maintained, and that proper treatment/application intervals are followed. This person needs to communicate with pilots, growers, Project officers, and county agricultural inspectors.

Communication with the county agricultural commissioner is a top priority. The commissioner's representatives can supply names of pilots and/or fixed or rotary wing aircraft companies that are licensed to perform pest control work within their respective county. In California, the Department of Pesticide Regulation – Pesticide Enforcement Branch, maintains a directory of pest control aircraft pilots. The county's agricultural staff might also indicate those locations where proposed aerial treatment would be restricted or not allowed due to power lines, population density, or other factors.

A meeting can then be held to get all helicopter companies together at one time and discuss the requirements of the bait treatments. This can include the following information, that:

- Project personnel must monitor mixing and loading of bait treatments.
- Project personnel must monitor all applications of bait treatments.
- Each helicopter to be used for bait treatments must be calibrated under the observance of project personnel.
- Each grower must have a Compliance Agreement, Hold Notice, and Regulatory Treatment Agreement signed with the project before their crops may undergo bait treatments.

The helicopter contractors need to be in contact with the project aerial coordinator in order to schedule the mixing and loading of the aerial treatments. Growers should contact and arrange to work with a helicopter company of their choice. The helicopter company can then call the project and speak with the aerial coordinator to arrange the application procedures. The aerial coordinator will inform the regulatory officers of the aerial treatments, and all parties involved will decide on a convenient day and time for the application. Schedules should be adjusted to avoid conflicting treatment dates.

Only DPR-authorized malathion and NU-LURE

bait spray formulations can be applied at label rates per acre. Spinosad formulation bait sprays must also be applied by aircraft or ground equipment at label rates per acre. Detailed information follows on appropriate products for this use and their dosages.

Growers - Aerial Bait Treatment

Growers should be aware that aerial bait treatments are a possible option, although there may be county-imposed restrictions on where this procedure can be utilized, especially in "mixed use" areas (i.e., both residential and agricultural). The project can supply them with a list of aerial applicators. Aerial bait treatments follow the same treatment requirements as ground bait treatments. Growers should note the following points:

- No treated host material in the quarantine may be moved from the property where grown without a limited permit. Limited permits are issued after completing bait treatments and/or to move material to processing or fumigation.
- All growers must have a Compliance Agreement, Hold Notice, and Regulatory Treatment Agreement with the project before they may start treatments.
- Growers opting for aerial bait treatments should contact the helicopter company directly.
- Project personnel must supervise all applications.
- Bait treatments will continue as needed to complete one life cycle based on each county's seasonal weather conditions, with a minimum treatment period of thirty days.
- Harvesting may begin between 24 hours and ten days after the last treatment. Crop fields/groves that cannot be harvested within ten days of the last treatment need to continue with the weekly treatments until harvesting is completed.
- Treatments are made weekly and must not exceed ten days from the last treatment or a new treatment cycle must be started. An exception to this would be rain starting on the seventh day and continuing for up to four days. This would allow an application on the eleventh day to count for the current treatment period.
- Wind speed should not exceed 10 mph to avoid drift. Wind gauges will be used by project personnel before the treatment and during the treatment to determine the wind speed. Should the wind speed become too high, the treatment must be stopped.
- Dye cards may be used on the inside and perimeter being treated to monitor spray droplet size and drift as well as coverage of the treated area.
- Rain…will negate a treatment.

Regulatory Officers – Aerial Applications

Regulatory officers can locate the best area to survey each aerial application. Radio contact can be maintained with the aerial coordinator to receive changes in the flight plan. In situations where a neighbor's property is to be used to view the application, permission to use the property should be received from the owner/resident prior to the application day. Once the quarantine area has been divided into zones, regulatory officers (often in teams) will be assigned to each zone. Inspectors are responsible for monitoring the treatments in their zone(s). Each regulatory officer maintains a logbook containing:

- log sheet
- grower's treatment records in sequential order
- compliance agreements and relevant exhibits
- Hold Notices

When each treatment period has been completed, the inspectors then issue limited permits to growers so that FFHM may legally be moved from the property.

Grower Treatment and Permit Procedures

All exotic fruit fly host fruit will be subject to certification requirements prior to movement from the property where grown. The FFHM must be kept safeguarded en route to a packer/processor and cannot leave the grower's property without documentation (i.e., Limited Permit). Certification will be made through the county agricultural commissioner in cooperation with federal and state regulatory officials.

Treatment Conditions. The grower should be encouraged to review pesticide safety requirements as stipulated on the product label. The project will allow treatment if the grower chooses not to wear protective gear. The grower must be advised that they could possibly receive citations of pesticide use safety violations issued by county agricultural inspectors (who could show up unannounced to observe bait treatments). If a person other than the grower (i.e., a hired worker) will be doing the application, project officers need to inquire if this individual has undergone county-approved pesticide safety training. If the worker doing the application has not undergone training and/or doesn't wish to wear protective gear, advise both the grower and the applicator of their risk of receiving citations for pesticide use safety violations issued by the county inspectors on unannounced visits during treatments. If the pesticide applicator (other than the grower) is unaware of the government safety requirements for protective gear, then the treatment may not occur until s/he has been so advised by the grower of these requirements.

Certification (i.e., limited permits) for movement of fresh host material can be issued following a designated period of malathion or spinosad bait treatment. The designated period for treatment is county-specific, based upon the effects that temperature models have on the fly's life cycle duration. The minimum period of treatment is 30 days, but can be extended beyond that, determined by the average, local seasonal temperatures, with treatments occurring at 6-10 day intervals. Project Regulatory officers will monitor all treatments. At the completion of the designated minimum treatment period, Limited Permits, allowing the movement of host material from the property, can then be issued. Weekly bait treatments must continue to the end of harvest if fresh FFHM is to be moved off the property. An exception to this would be rain starting on the seventh day and continuing for up to four days. This would allow an application on the eleventh day to count for the current treatment period.

Prior to initiating bait treatment the grower must acquire either the malathion pesticide and NU-LURE or the spinosad and the NU-LURE. The grower must contact the county agriculture commissioner's office for the required county documentation. The grower should be advised that during an application, if they did not practice county safety requirements, he or she would be subject to the cancellation of that treatment and a pesticide safety violation would be issued by the county.

These are the current malathion formulations *(as of 9/01)* authorized in Special Local Need exemption (SLN) # CA-830012 [Malathion/Various Crops/Quarantined Members of the Fruit Fly Family (Tephritidae)], that are approved for FFHM treatments.

Formulation	**EPA Reg. No.**
Gowan Malathion 8	10163-21-ZA
Gowan Malathion 8 Flowable	10163-21-ZB
Clean Crop Malathion 8-E Insecticide (Platte Chem. Co.)	34704-452-AA
Clean Crop Malathion 55 Insecticide Premium Grade (Platte Chem. Co.)	34704-3-AA
Clean Crop Malathion ULV Concentrate Insecticide (Platte Chem. Co.)	34704-18-AA

Dosage: Apply from 1.2 up to 2.8 ounces of active ingredient (a.i.) of malathion (*dosage dependent on malathion product type, see below) mixed with

approximately 9.6 fluid ounces protein hydrolase bait per acre. Amount of bait may vary according to type, viscosity, medium, or tank needs. Add water that has been buffered to near 7.0 pH, if required, according to the amounts given below, per acre.

- Aerial Application
    - Urban Areas
      1.2 up to 4.48 ounces a.i. malathion, depending on product*
      9.6 fl. oz. (approx. bait)
      No dilution with water
    - Commercial Acreage
      1.2 up to 4.48 ounces a.i. malathion, depending on product*
      9.6 fl. oz. (approx. bait)
      2.9 gal. water (optional)
- Ground Application
    - Urban Areas
      1.2 up to 4.48 ounces a.i. malathion, depending on product*
      9.6 fl. oz. (approx. bait)
      39.9 gal. water (optional)
    - Commercial Acreage
      1.2 up to 4.48 ounces a.i. malathion, depending on product*
      9.6 fl. oz. (approx. bait)
      39.9 gal. water (optional)

To achieve the required dosage of a.i. per acre, use the following amount of product*:

- **Malathion 8 formulations**: Use a minimum of 1.4 up to a label maximum of 2.8 fluid ounces of product per acre.
- **Malathion 55 formulations**: Use a minimum of 2.2 up to a label maximum of 4.48 fluid ounces per acre.
- **Malathion premium grade and ULV formulations**: Use a minimum of 1.2 up to a label maximum of 2.4 fluid ounces of product per acre.

The NU-LURE Insect Bait (Miller Chemical and Fertilizer Corp., CA Reg. No. 72-50012-AA) is a proteinaceous liquid, derived from corn and designed for use as an attractant and bait in insecticide sprays. It contains concentrated free amino acids and polypeptides, which encourages fruit flies, especially the females, to feed upon the spray residue.

*** Note: minimum effective dosages were determined by a research committee consisting of Dr. Robert Dowell, California Primary State Entomologist, Dr. Peter Kurtz, PD/EP Senior Medical Coordinator, and others, during previous exotic fruit fly quarantines in California.**

Rate: Apply 1 to 3 pints of NU-LURE Insect Bait per acre in 1 to 3 gallons of water per acre by aircraft, or 10 to 40 gallons of water per acre by ground sprayer in combination with a suitable insecticide. On large trees, where dilute sprays are applied, use the higher rate per acre.

Products Containing Spinosad
Section 18, No. 99-38

Formulation	**CA Reg. No.**
NAF-550 Fruit Fly Bait (Dow AgroSciences LLC)	62719-99038-EE
GF-120 Fruit Fly Bait Dow AgroSciences LLC)	62719-01013-EE

Spinosad is currently available as a quarantine-level treatment option for growers of organic produce. Growers are advised to check first with those who certify their organic status, as the latter may choose not to supply organic certification when this product is used on a crop. Various post-harvest *processing* methods do allow growers to retain the organic status of their commodities.

Dosage:

- For NAF-550 Fruit Fly Bait, use 12 to 96 fluid ounces of product (0.0011-0.00883 ounces of a.i.) per acre. This product is a ready-to-use formulation, containing 9.2 pounds of product per gallon, therefore, no diluent is required.

- For GF-120 Fruit Fly Bait
    - Broadcast application – Use 26 to 52 fluid ounces of dilute spray solution per acre
    - Spot spray of individual plants – Use 1 to 3 fluid ounces of dilute spray solution per plant.
    - Mixing instructions – GF-120 Fruit Fly Bait is a bait concentrate that must be diluted with 1.5 parts of water for every 1 part of GF-120 (e.g., to make 10 gallons of spray solution, you need 6 gallons of water to 4 gallons of GF-120). First add water (one half of the volume of GF-120 to be mixed) to the spray tank or premixing tank and start the agitation system. Then add the required amount of GF-120 followed by an equal amount of water. If using a full container, the empty GF-120 container should be triple rinsed by adding one third of the volume of the container and shaking well and adding the rinsate to the spray tank. Repeat two more times so the container is triple rinsed and the proper dilution is achieved. Constant agitation of the spray solution is recommended to ensure uniformity of spray mixture. Allow agitation system to operate for at least 5 minutes before applying. Once diluted, GF-120 should be used within 24 hours. Concentrated GF-120 will not settle and does not need to be shaken before mixing.

The grower will provide the regulatory officer accurate harvestable acreage information from which to determine the appropriate amount of pesticide to be used. If the grower cannot provide exact harvestable acreage for an orchard or grove, then a count of the trees will be required. Regardless of the **type** of tree, the formula for calculating acreage by numerical tree count is as follows:

Trees of "normal citrus size" will be counted on an average of 120 per acre. The number of trees will be divided by 120 and then multiplied by the malathion formulation rate per acre and the NU-LURE rate per acre to determine the amounts of pesticide and NU-LURE to be used for that particular treatment.

Trees of "normal avocado size" will be counted on an average of 70 per acre. The number of trees will be divided by 70 and then multiplied by the malathion formulation rate per acre and the NU-LURE rate per acre to determine the amounts of pesticide and NU-LURE to be used for that particular treatment.

The actual mixing and application of treatment sprays is the responsibility of the owner and/or manager of the commodities. For a treatment to be valid it must be observed and monitored by project personnel. Application is to be conducted as follows: The prepared spray is briefly applied to four shaded, spot locations. Ideally these applications would be made within the upper 2/3 's of each tree's foliage, or as high up in the tree's canopy as could be reached from the ground, at equal intervals around the tree. This is repeated for each tree, in essence creating four "pesticide bait stations" per tree to attract flies in the vicinity. In a grove situation, to assure adequate coverage is maintained, it is acceptable for a perimeter spray to occur and then to alternate rows in a circular manner toward the center of the grove. What should be avoided is starting at one end of a grove and working toward the other end, and partway through the application depleting the allowable amount of pesticide per acre that can be used. This would leave the remaining portion of the grove untreated. In alternating rows towards the center of the grove, sufficient "bait stations" on all sides are ensured, even if the pesticide coverage is depleted in the middle of the grove.

If any pesticide is remaining at the conclusion of the treatment the residue is to be re-applied to the already treated trees. For the next treatment application this will indicate that less water can be used in the mix and still ensure adequate coverage. At the conclusion of the application, the sprayer may be rinsed with water to clean out both the canister and the hose. Each time the canister is

filled with water it can then be sprayed out on the trees' foliage.

Before leaving the property, the regulatory officer observing the treatment needs to complete a project form entitled "Treatment Record". This is a form of documentation of each application, which includes information regarding the type of host material that has undergone treatment, the number of treatments applied and the amounts of pesticide, NU-LURE and water used. The amount of pesticide used during each term of treatment will be shared with the grower. This information may be required by the county on Pesticide Use Report forms.

Spray Application Protocol - for Orchards and Groves

- CDFA/USDA Project officers, upon entering the property, presents identification to the property owner/grove manager, or greets the person if this is not his first visit to the property.
- The property folder file is reviewed for contents regarding previous treatments in the program to check for discrepancies or missing information.
- The presence of an SLN exemption or Section 18 is verified, with attention to the commodities and acreage listed, and amounts and kinds of pesticide and bait applied).
- When the SLN/Section 18 is read, the Project officer should be aware that the amounts can be halved for program purposes, and this should be called to the attention of the owner in order to clarify the application rate. Environmental concerns have formed the basis for this reduction, since the amounts are satisfactory to achieve the desired results.
- The property owner is advised of the possibility of visits from the county regarding safety-related issues, especially the availability and proper use of safety equipment, and the maintenance of accurate and complete pesticide use records.
- Important safety information is relayed to the applicator as necessary, with attention to the need to wear a respirator when spraying in a confined area (i.e., an enclosed greenhouse), and the need to wear goggles when doing foliage applications to larger trees to avoid spray drip, which might fall on the applicator.
- Careful attention should be paid to the measuring and mixing of the pesticides and bait in the correct volume of water for the spray application. The amount used should be checked against the treatment record for past applications for accuracy. Any corrections that should be made can be explained to the owner/manager, and all questions should be answered or referred to the appropriate project person.
- The Project officer should observe the treatment and make certain that the spray is properly applied to the top third of the foliage of the trees in the canopy, the spray amount is adequate to create an effective bait station, and that the amount of water is adequate. The applicator needs to be advised that the entire amount of the spray mixture should be applied to the property, if necessary revisiting parts of the grove in order to accomplish this.
- Project officers must monitor the application of the pesticide/bait not only on individual trees, but also in the grove in its entirety. The most important and effective placement of the mixture requires that the perimeter and center of the grove be treated. Every tree on the perimeter and every other tree in alternate rows must be bait sprayed for effective treatment.
- As a particular caution to applicators and novice Project officers, it is important not to confuse total acreage in the property to be treated with the amount of rows to be sprayed-although it may seem appropriate to reduce the amount sprayed (pesticide, bait, water mixture) since not all rows are sprayed, the applicator should realize that the total area under treatment forms the basis for the amounts to be sprayed.
- If a tractor is used to apply the mixture in the grove, it is advisable to begin the spray application in the center of the grove, applying the mixture to both sides of the row, then skipping a row and repeating the process. In this manner, every row on one side or the other

receives a portion of the spray amount. A circular pattern, if possible, can be followed in the grove to apply the material.

- As a safety-related issue, treat the center of the grove first and then the perimeter in order to avoid re-entering sprayed portions of the property.
- Some property owners with few trees may elect to use a spray bottle, for example, a window spray bottle, in order to make the application. Caution the applicator to rinse the bottle well before dedicating it to program use in order to avoid contamination of the pesticide/ bait which might reduce effectiveness.
- Water amounts can theoretically vary from no water used to a maximum of 39.8 gallons per acre for a tractor spray rig. For typical backpack use, an average of 10 gallons is typical. Spray amount can be adjusted by closing nozzles or by reducing nozzle size.
- Triple rinsing should be practiced in order to avoid drying of mixture in the equipment.
- Before leaving the property, verify the time and date of the next treatment, and check to see that the information on the treatment observed is recorded accurately on the program paperwork as well as on the grower treatment record.
- Answer any questions which may be presented, or advise the owner/applicator that an answer will be forthcoming. During a quarantine program as opposed to a monitoring program, present a carbon copy of the program treatment record or make a note to place one in the file for the next visit to the property.
- The decision to spray or delay spraying in the event of a threat of rain is that of the property owner or his representative. Make certain that this is communicated clearly.
- If rain occurs within 24 hours following a treatment, the treatment will be nullified if a half-inch or more of rain falls in the 24-hour period. Light rain (mist) in the judgment of the Project officer may be overlooked and the treatment initiated. Be on the alert for the possibility of heavier rains to follow. If a property is at the end of the treatment cycle and rain is the cause of postponement, another 4 or 5 days of consistent rain may form the basis of extending the treatment interval before a treatment is mandatory in order to follow the program.
- It is the responsibility of the program representative on site at a treatment to keep the program personnel advised without delay, of any significant issues or observations about the property. End of day or next morning meetings are a good way to keep all personnel informed.

Roles and Responsibilities for CDFA and USDA Personnel while Monitoring Quarantine Treatments

- Act as primary contact for property owner/manager during the monitoring of quarantine treatments
- Determines the appropriate formulation of pesticide/bait/water needed for application on the property, including revisions, as orchards/groves are brought out of production during the seasons
- Observes measuring and mixing operations
- Verifies the presence and use of safety equipment and all necessary permits and ID#'s
- Observes the application of the pesticide/bait stations to trees, in particular, and groves in general
- Completes the treatment record and provides a copy to the applicator
- Schedules the next treatment date and provides this information to the project treatment coordinator
- Obtains information from the grower on the dates and times of harvesting and transport of fruit from the property to the packing house, and provides this information to the project personnel who will be issuing limited permits
- Trains TDY personnel about treatment monitoring procedures
- Provides input to project's zone leader on suggested improvements to and revisions of project procedures
- As time allows, surveys the local roads and

surrounding areas for suspected illegal movement of regulated commodities, and reports observations back to project staff
- When monitoring aerial applications, takes wind velocity and air temperature measurements and records beginning and ending times of the treatment.

Upon completion of a bait treatment program a grower is then able to move and/or sell the host material from the property. The grower is issued a Limited Permit with an effective date and an expiration date. There are two types of Limited Permits:

Multiple Day Permits

The expiration date of the permit is never greater than 10 days after the last treatment but is never effective until the day after the completion of the initial period of treatment. When the initial treatment period is 30 days and the last application is on the 30th day, the permit would be effective the following day (the 31st day). The permit would then be valid for harvesting for 10 days. When the term of treatment is 30 days and the last application is on the 28th day (this would occur if the treatment schedule was every 7 days), the effective date of the permit would be the 31st day. This permit would be valid for 8 days.

24-Hour Permits

This applies when the grower is selling the treated material to a packer. As with Multiple Day Permits, the earliest that a permit would be effective is the day after completion of the initial period of treatment. The grower still has the same window of opportunity to sell to a packer but each permit issued is only valid for 24 hours. If the grower wishes to pick and deliver to a packing house on the 34th day following a 30-day treatment program, a permit is issued with that day as the effective date. The following day would be indicated as the date of expiration. If the grower has an 8-day "harvesting window" and wishes to pick and deliver on one or more of those days, a permit is issued valid for **each** of those days.

The essential information on each permit designated for packing houses: the valid 24-hour date that harvest is permitted, name and address of the packer, how many boxes, bins, bags, etc. are going to be delivered, and the license plate # of the vehicle that will transport the FFHM. This precise information is required since all packers who have signed CA's are not allowed to receive any FFHM unless each arrives with a copy of the Limited Permit. If the valid harvest date has expired and/or any other information on the permit does not match with what is being delivered, the packer is required to refuse the shipment in question. The ideal situation for project officers is to be present at the property at the time FFHM is being removed. Because of conflicting or uncertain schedules, this is not always a practical or convenient situation. If an officer is unable to be at the harvest property at the time of FFHM removal, and the grower is able to give them an exact count of the FFHM and the vehicle plate number, they may post date the permit for the actual date of transport. If for any reason the FFHM count or the plate # of the transporting vehicle will be different from what is on the permit, the grower must call the project office with the change so that the packer can receive authorization from the project to accept the shipment with an amended container count or license plate #. Advise the grower that any harvested FFHM that remains on the property that was not part of a shipment must be kept safeguarded until removal.

Packing houses must keep Limited Permits and certification records on file for a minimum of two years. Limited permits are the best means to both ensure that only treated, safeguarded commodities move from grower/producer to packing house facility and then on to final destination, as well as provide a means to trace the movement of regulated commodities back to origin or forward to destination. Their consistent use helps satisfy our trading partners that all possible measures are being taken to track fruit leaving the quarantine area and mitigate the risk of shipping pest-infested

commodities.

While inside the quarantine area all harvested host material must continuously be kept safeguarded with a project-approved method, (i.e., use a tarp, screening, Fly Guard®, or other project approved method). Host material will be safeguarded as though originating from outside the quarantine area to prevent possible infestation.

For all commodities being treated under the SLN, specifics on "preharvest interval" (the allowable minimum elapsed time from the last treatment date to the host material harvest date) are detailed in the document. This is generally a **24-hour period**. If commodities are being treated under a Section 18 Emergency Exemption No. 99-38, the "preharvest interval" is **24 hours**. The effective date on any permit can never be earlier than the calculated "preharvest interval" date. Regardless of the effective date of the Limited Permit harvesting must be completed by the tenth day after the last certified bait treatment.

Project officials must be notified a minimum of 24 hours prior to harvest by each grower or their representative, of the specific harvesters, haulers, packers, etc. handling their commodities from the date of picking.

Individual bins should be filled to a level four inches below the top edge of the bin, no higher. Bins of harvested FFHM must remain in the treated portion of the grove until the time when they are moved to the periphery for transport to the Packing house or an approved storage facility. Bins must not be left overnight outside of either the treated grove or a pre-approved site. It is not necessary to cover individual bins as long as they are being transferred to the haulers/transporters without diversion and then not stopping within the quarantine zone as they are being moved. Truckers should have tarps available with their loads in the event of a vehicular breakdown or any other extended delay within the quarantine's boundaries.

Requests for information regarding other available treatments of host fruit (i.e., fumigation, processing, drying, etc.) should be directed to the Project's regulatory officers. They can then monitor these available quarantine treatments and provide certification.

Before being moved from the orchard, grove or field where in use, all empty field boxes, picking or harvesting equipment, vehicles and tools will be cleaned with water under high pressure (at a minimum of 30 PSIs) until free of all plant debris and soil.

The listings of fruit sellers (if the destination of the FFHM is a swap meet) and/or CFM growers (if the destination is a certified farmers market) should be checked to see if the grower has already signed a compliance agreement. If a CA has not been issued to the grower it can be done at this time. Explain compliance and safeguarding measures and the consequences if they are found out of compliance. This ensures that after the time and expense involved in preparing for and undergoing bait treatments**,** the grower is not surprised at a swap meet or CFM with a Notice of Violation and a possible seizure.

A field card should be made and put in the appropriate field book that day by the regulatory officer. If the grower were going to sell from his property, a Fruit Seller Compliance Agreement would be issued at the time the Limited Permit is given. The compliance and safeguarding measures should be explained and the consequences if the grower is found out of compliance.

Differentiating between Sweet and Sour Limes

(Method as suggested by Gary Bender, Ph.D., UC Cooperative Extension Office)

- Sour limes are exempted as hosts for some exotic fruit flies
- A pH meter (not litmus paper, which only provides generalized indications of acidity) can be used to measure the hydrogen ion concentration of lime juice to determine sweet versus sour limes
- Sour limes: pH of 5 or below
- Sweet limes: pH over 5
- Note: immature sweet limes may be as acidic as mature sour limes (as defined above).
- The inspector making the acidity determination must be well trained in the proper use of pH meters to ensure that pH readings are being taken accurately
- pH meters must be cleaned and stored properly to maintain their proper functioning.
- Two basic techniques:
    - Juice is squeezed into a container and the liquid tested
    - A probe is inserted into the fruit.
- Probe method preferred due to ease of use and quick results
- pH meters can be prone to misreading and must be cleaned after each use.
- CQC's can be issued once a determination is made in the field.
- If a grower is determined to have sweet limes, CQC's need not be issued, but a record of the crop is made as part of the grower's regular portfolio.

Nurseries

Initial Contact with the County

Through the initial contact with the county, it should be determined which nurseries are wholesale establishments. The main concern is to ensure that all nurseries that have the potential to distribute potted host material outside of the established quarantine area be contacted so that the movement of susceptible material be stopped immediately.

As with the grower situation, procedures differ from county to county in the state of California regarding issuance of SLN's, Section 18's, Operator / Site I.D. #'s, Notices of Intent (NOI's) to apply a pesticide, Pesticide Use Reports, the required licenses or required safety training of each applicator, and the policies on issuing County Violations at a treatment site. A project supervisor can contact the county agricultural commissioner's pesticide office regarding these issues and any other possible aspects of pesticide regulation enforceable by the county.

SLN and Section 18: issued by the county. Depending on an individual county's policy, if the nursery currently has and out-of-date-SLN or Section 18, it may be required that the most current SLN or Section 18 be issued. The treatment may still occur using the older SLN or Section 18, but it must be updated as soon as possible. Project officers can call the county office to inform them of the need for issuance of a current SLN or Section 18. If the nursery has **not** previously treated then a treatment **cannot** occur without the SLN or Section 18 having been issued. The SLN or Section 18 for a new nursery will be issued by the county when they issued the Operator [Site] I.D. number.

Chemical: if the nursery doesn't have the required Diazinon (see table below), a nursery representative needs to contact the county office for an Operator [Site] I.D. number. This will allow the nursery to purchase the diazinon from a supply house.

Diazinon SLN # CA- 960016 (8/27/01)

Formulation	EPA Reg. Number
Clean Crop Diazinon AG500 Insecticide (Platte Chemical)	34704-41-AA
Clean Crop Diazinon AG600 Water-Based Concentrate (Platte Chemical)	100-784-34704

Operator [Site] I.D. number: at the time the county issues the SLN and/or I.D. number, they will also be issuing Pesticide Use Report Forms. The County Inspector will fully explain the use of the form to the nursery.

Initial Project Officer Contact with Nurseries

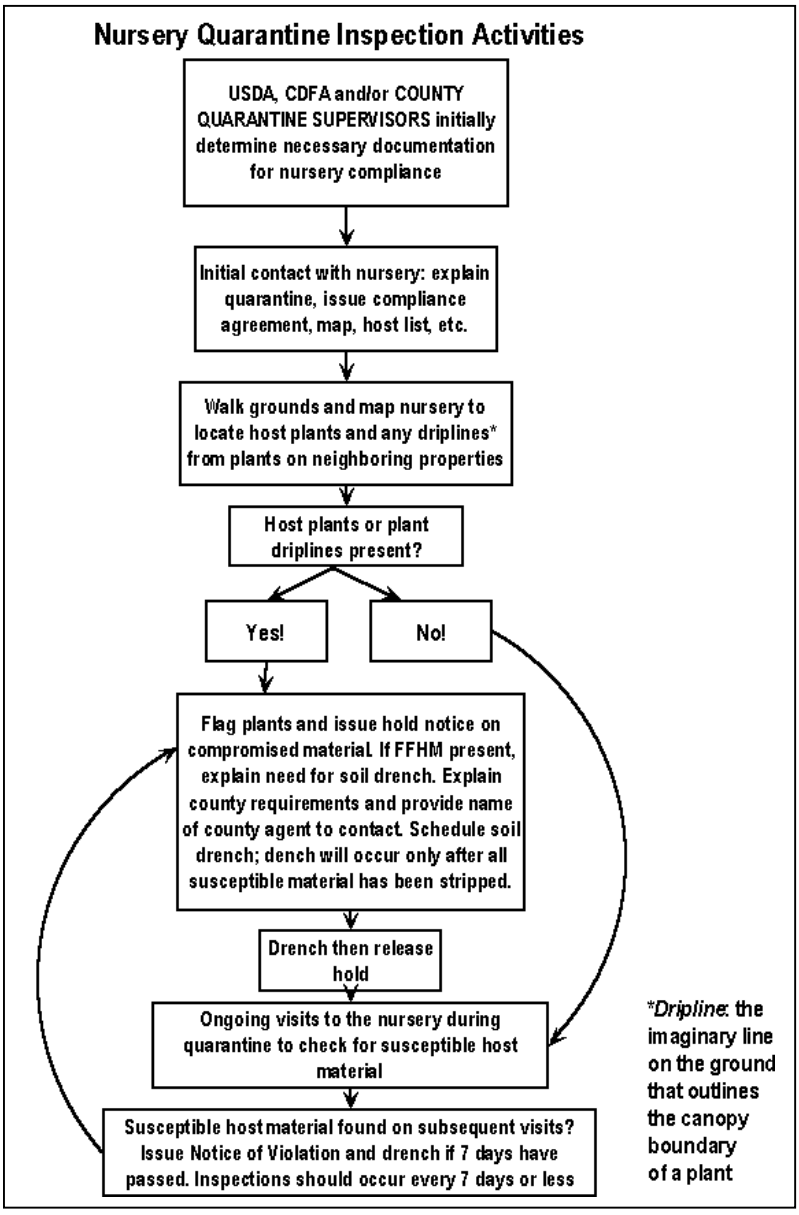
For regulatory purposes, a nursery is any wholesale or retail establishment that regularly offers potted plants, shrubs and trees, often bearing FFHM, for sale. Nurseries are regulated during an exotic fruit fly quarantine to prevent, both within and outside quarantine boundaries, the movement of eggs and/or larvae in infested fruit and larvae and/or pupae in the container's soil.

Most of these establishments can be located through use of nursery lists provided by the county's office of agricultural commissioner. Other nurseries can be found by driving the quarantine area while signing-up yard maintenance businesses (e.g., "Do you grow any of the plants used in your business?"), locating plant sellers at swap meets and/or contacting known nurseries.

On Site Inspection

Following introductions to nursery management and/or supervisory staff, the project inspector will explain that this nursery is in the quarantine area, will need to be surveyed for exotic fruit fly host material, and kept in compliance for the duration of the quarantine. During the walk-around site survey of the grounds, a grid map can be drawn to designate such parameters as location, type and approximate number of host plants in the nursery.

Marking of host plants can be achieved by either spraying spots of fluorescent paint on the side(s) of each pot, or tying flagging or yellow USDA quarantine tape on branches or trunks. The inspector should ensure that the perimeter of the



nursery is checked for 'drip line' overhangs from adjacent trees or shrubs on neighboring property; larvae from infested fruit could drop off these plants and infested potting soil below. In addition, nursery workers often plant peppers and tomatoes on the grounds of the business for their own consumption; these, too, must be regulated.

If there are citrus or other host plants in the nursery whose fruit is intended for personal use by nursery staff, the fruit on these plants must be kept away from the general public and the plants themselves marked with yellow quarantine tape. The nursery staff should be reminded that these items are host material and are not to be removed from the premises. Soil below overhanging trees or shrubs needs to be drenched with diazinon. The location grid map needs to be as up to date and accurate as possible; other inspectors will be regulating each nursery utilizing the maps drawn during the introductory visits. Some especially cooperative establishments group plants together that bear FFHM to make fruit stripping and regulatory inspection more efficient.

The second step is to issue a Compliance Agreement and a Hold Notice. If there are no host plants present, only the Compliance Agreement will be completed. A CA in English is signed; if requested by the business, a copy of the CA in another language may be provided for the record. If other potted host material is present, it must be listed by type and number on the Hold Notice. These documents should be read and explained to the nursery staff representative before leaving the premises.

The inspector must also discuss the SLN and the diazinon source list, indicating that only those products listed by trade name (with their corresponding EPA registration numbers) can be approved for use in soil drenches. County phone numbers should be provided along with an explanation of county policy regarding enforcement procedures as well as the full extent of their participation in the quarantine. An exotic fruit fly host list and information poster can be provided.

The inspector should explain the responsibilities of the nursery staff with regard to host plant drenches:

- All host fruit that is ‘turning in color’ (i.e., becoming ripe therefore susceptible to infestation) must be stripped off plants and preferably sealed in double plastic bags **before** the drenching of the potting soil. Regardless of size, if the fruit is ripening it must be removed from the plant. The bagged fruit is then put in waste bins before being sent to a local landfill for burial/disposal.
- The nursery staff must provide workers with the plastic bags for FFHM stripping, along with the pesticide, sprayer and safety equipment for the drench. Exotic fruit fly field officers will monitor the bait spray formulation mixing, along with the actual drenches.
- The nursery management/supervisory staff needs to read the diazinon label and also be aware of the requirement for appropriate safety clothing to be worn by applicators during the drenching procedures. In addition to the label requirements, particular attention needs to be paid to county stipulations regarding application and safety.
- Once the fruit has been stripped and the nursery has purchased the correct diazinon formulation, their staff should call the project’s regulatory office to set up a time to drench their soil. It should be no longer that one week after the initial contact, and preferably should be done as soon as possible.

It is the responsibility of the exotic fruit fly project field officer to observe the mixing of the bait spray formula in the correct component proportions and to explain to the applicator how the drench (i.e., saturation of soil surface) should be done. The top two inches of the soil is to be drenched with the application wand moving all around in the container so that the entire soil surface is wetted. When the drenching is completed, have the applicator rinse all the spray equipment. If there is leftover diazinon, the applicator is to dilute it per label instructions. The stock may be sold when the soil has absorbed the diazinon (i.e., is “dry” following the application); customers should be kept out of the area until that time.

The nursery staff should be informed that project officers could be expected to return unannounced, on a regular basis, to ensure that plants are being kept stripped of FFHM and to see if any new stock has arrived with susceptible host material. Such FFHM must be stripped from newly arrived stock within 24 hours and bagged for disposal. As per the CA, if an inspector discovers susceptible host fruit on trees at a nursery under compliance, a violation of quarantine regulations has resulted. The fruit must be stripped off the host plants that will have to be marked for a subsequent drenching treatment. Any host material received by inspectors from the nurseries is to be double-bagged and deposited in a designated dumpster at the project offices, for eventual disposal/burial.

Documentation

Compliance Agreement (CA): To be issued for all nurseries. Should the situation occur where the nursery representative chooses not to sign the CA, it should be explained to them that refusing to sign does not in any way absolve them of responsibility to comply with exotic fruit fly quarantine regulations. If they still refuse to sign the CA, print "refused to sign" on the signature line. Give them a copy of this document, regardless if they've signed or not.

Hold Notice: If there was susceptible fruit in the nursery, fill out a hold notice. The hold notice should list how many plants by type (although the use of scientific names is strongly encouraged, a common name is appropriate as long as the plant can be identified) and container size (i.e., 1-gal., 5-gal., etc.) so they may be identified later by any nursery team monitoring a soil drench.

Permanent Hold: This is a seldom-used Hold Notice, which is declared on a case-by-case basis, and is continuous for the duration of the quarantine. It is used for host plants that are permanently planted in the ground, but may also be issued for plants in very large pots (i.e., larger than 15-gal. size) used for seed production or for other propagative purposes (i.e., cuttings from “mother plants/stock”). Note, however, that the Permanent Hold is not to be used as a means of avoiding the soil drench procedure.

Grower Paperwork Checklist

Paperwork to be given to grower:
- Grower Treatment/Permit Procedures (3 pages)
- Bait/Treatment Schedule (calendar)
- Exotic Fruit Fly Plant Quarantine Treatment Information (County Memo)
- Source List for malathion, NU-LURE and spinosad
- Host List
- Quarantine Map
- Exotic fruit fly Leaflets

Paperwork to be signed by Grower:
- Hold Notice
- Compliance Agreement for Growers
- Treatment Agreement

Paperwork issued by the County:
- Section 18
- Special Local Need (SLN)
- Operator Identification Number (renewed annually)
- Monthly Use Report Forms
- Regulatory Officer Paperwork submitted after each application:Treatment Agreement
- Limited Permits (if applicable)

Packing Houses

The nature of the business of a packing house is the movement of large amounts of fruit from growers to wholesale distributors, shippers, exporters and sometimes directly to consumers. The fruit is often moved over long distances. The possibility of large quantities of infested fruit being moved out of a quarantined area is quite likely if project officials did not regulate the industry to prevent this occurrence.

Because of county, state and international trade concerns, packing houses quickly become the important regulatory aspect of any quarantine. By working closely with the packing industry, the threat of spreading large volumes of fruit fly infested host material beyond the quarantine can be prevented, and positive trade relations with county, state, national and international partners can be maintained.

Packing House Protocol

Prior to Quarantine, and After a Fly Find

- Using county officials, grower associations and project officers, contact all packing operations to establish a contact person at each site.
- Plot packing houses on map in relation to fly find(s).
- Make packets to be distributed that include:
    - Compliance agreements (CA's: Packer, Exhibits, Transient Load)
    - Host list
    - Map (if available)
    - Container stamp information
    - Limited Permit example
    - Exotic fruit fly information
    - Brochures
- Set up meetings with packing houses to warn about possible quarantine.
    - Explain project regulatory protocol and give packets
    - Request shipping records for thirty days prior to fly find to notify trading partners
    - Suggest that house develop their own regulatory protocol for their situation
    - Suggest that house can choose to order stamps or labels stating designated county #, to facilitate movement of their products
    - Let them know that you will return if a quarantine is established and ask them to sign compliance agreements

After a Quarantine is Established

- Visit each packing house to notify of quarantine and sign CA's, explain limited permits and stamping/labeling options
- Walk entire packing house having representative explain regulatory protocol. If packing house is in quarantine area offer suggestions on safeguarding
- Meet with house managers, receiving foremen, field superintendents, and accounting personnel and ensure that they understand the quarantine restrictions and regulations
- Request a list of all growers in the quarantine area, and a current picking schedule. Give a copy of these lists to the person handling treatments for cross-referencing purposes
- Request written copy of each packing house's regulatory protocol
- Create a database of all information for quick reference.

Regulating Packing Houses - *Inside* Quarantine:

- Walk entire house verifying compliance with CA
- Check certification stamp to make sure it is consistent with phytosanitary requirements
- Spot check records verifying that all packed host material fit protocol
- Sign off limited permits and make sure that they are attached to the receiving ticket and that the information agrees on both documents.

Regulating Packing Houses - *Outside* quarantine Receiving from *Within*:

- Walk packing house verifying compliance with CA
- Verify host material is being kept separate and is being stored in accordance with the addendum.
- Verify if stamping/labeling of boxes is being done on quarantine host material
- Sign off limited permits as above
- Spot check records to verify that fruit has been packed on separate runs.

Regulating Packing Houses: *Outside* Quarantine *Not* Receiving from Within

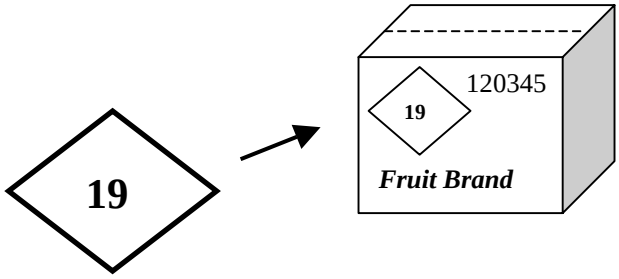
- Establish contact with management
- Spot check records to verify house not receiving from within quarantine.

Fruit Tracking System

This voluntary system can be implemented during exotic pest quarantines and enables quarantine officials to track host material to a destination anywhere in the world. It is vital that the relationship between U.S. exporters and trading partners, both foreign and domestic, be maintained throughout a quarantine. This system helps U.S. officials track all treated host material being moved out of the quarantine and allows international trading partners to remain confident that the United States is doing everything possible to protect *their* agricultural industries.

Box Stamping

In order to distinguish quarantined host material from non-quarantined host material, a stamp method has been adopted during previous quarantines. All boxes of FFHM, either packed or originating from within the quarantine, may display a stamp, with the assigned county #, placed on the outside of the box (see example below).



The stamping system should be explained to all packing houses upon your first visit to the house. For the specific stipulations on dimensions and placement of a previously used stamp, see the CDFA Phytosanitary Advisory dated December 20, 1993, and July, 1995.

Note: USDA/APHIS/PPQ Export Office, or EXCERPT on-line can be consulted for the most current FFHM phytosanitary certification requirements and guidelines issued by importing countries.

P.Q. Form 530 and 540 (Permit Certificates)

The limited permit system is designed to track host material from the growing site to the packing house and beyond. Utilizing the number on the permit and the number of the packing house receiving ticket (trip ticket), fruit can be tracked from any destination back to its origin. A secondary use of the limited permit is to release a hold (see grower stipulations) placed on a grower's field pending a bait treatment. This permit lets a regulatory officer know that this fruit is approved for movement and/or sale.

- Prior to the movement of any host material within a quarantined area, a limited permit must be issued for each load.
- Upon arrival at the packing house, the driver then must submit the 530 or 540 to the receiving foreman, who then must attach it to the receiving ticket (= trip ticket)
- A packing house accountant then holds the 530 or 540 and receiving ticket pending a regulatory officer's signature
- The packing house will then file the form with

the pack out ticket (= grower receipt) as normal This record will be kept on file for two years.
- A database can be created at the project for tracking the status of each permit issued.

Follow-up: Verifying that the System Works

- Randomly choose an old permit and check its destination
- Visit the packing house where the permit should be on file
- Request a copy of the pack out ticket, and print out the destination of the load
- Cross-reference dates, trip ticket, and commodity amount.
- At this point you have determined that the permit is still on file and able to be tracked.

Processors

Processors are considered a risk by project officials because of their need to transport large amounts of untreated host material, sometimes over long distances from growers, packing houses and distributors. Most processors process the host material thoroughly enough to destroy any life cycle stages of an exotic fruit fly that may have been present. However, if there is any waste material, either processed or unprocessed, it is of great concern to project officials and must be regulated to its final destination.

Processor Protocol

After a Fly Find, Prior to a Quarantine
- Contact all processing operations to establish a contact person at each site
- Plot on a map the location of each processing operation and their relation to the fly find(s)
- Assemble packets to be distributed; they should consist of:
    - CA's – with exhibits for processor, transient load, receiver of processed host material, hauler of processed host material
    - Host list
    - Map (if available)
    - Brochures

After a Quarantine is Established
- Set up a meeting with the processors to explain project regulatory protocol. Request that the field superintendents, receiving foremen, managers of shipping companies, and any receivers of processed host material or by-products attend meeting
- Explain CA's, have owner/manager sign and receive a copy of document
- Go over Limited Permit procedures
- Request a list of growers in quarantine and current picking schedule. Field superintendent verifies that growers are under compliance with project guidelines and notifies project of intent to harvest so that Limited Permit arrangements can be made
- Receiving foreman verifies that a limited permit accompanies every load received at the plant. The permit should be attached to the receiving ticket immediately upon receipt
- Accounting personnel should create a file to store paperwork pending a sign-off by project officer
- Walk entire processing plant having a representative explain their processing procedures
- Observe any by-products to make sure that they are being maintained /stored/ disposed of in compliance with processor addendum. Request information from any *receivers* of processed host material as well as any *haulers* of processed host material.

Ongoing Regulation of Processors

- Walk as much of plant as necessary to verify continuing compliance
- Sign-off on Limited Permits; make certain they remain attached to the receiving ticket and that the information agrees on both documents.

Haulers of Processed Host Material

Usually a *hauler* of processed host material works for the same company as a *receiver* of processed host material. However, because of high disposal costs, it is not unusual to find that the processor or a company contracted by the processor does the trucking of the by-products. As with the transient load companies, hauling of processed FFHM is a minimal risk activity. However, the same concerns do apply to emergency stopping within the quarantine zone as well as proceeding in direct route through the quarantine.

One additional concern involved with moving processed FFHM is the possibility of the material spilling or falling off while in transit. In order to minimize this, trailers are only allowed to be loaded to within 10 inches of the top of each open container. For regulatory purposes a CA with an attached Exhibit for Haulers of Processed Host Material must be signed.

Transporters of Unprocessed FFHM

A transient load is any shipment of FFHM that is transiting the quarantine area. Usually the load will be destined for a packer, processor or distributor. Covering the load with a tarp is not required if the driver proceeds directly through the quarantine area without any stops or diversions. Transiting a quarantine is generally considered to be a low risk activity. However, there is a slight risk of a load becoming compromised if the vehicle were to be involved in any accident, have mechanical troubles or if the driver parks the vehicle for an excessive amount of time.

Even though the risk of infestation is minimal, it is in the best interest of project officials to regulate loads transiting the quarantine area by having the trucking companies sign a Transient Load Compliance Agreement. When meeting a trucking company, if at all possible deal only with the owner or manager of the company. It is also a good idea to request that the dispatcher also attend the meeting. This is important because the dispatcher is often the person that the truckers receive their directions from as well as the person who will receive any emergency calls.

Receivers of Processed Host Material

Often by-products from processing plants are utilized by other industries for various reasons. A few examples are as components of cattle feed, vitamin pills, volatile oils and coloring extracts. The biological risk of spreading exotic fruit flies in processed host material is negligible. However, it is imperative to track host material from its growing grounds all the way through to the end of its use/consumption, in order to ensure that only negligible risk is present at all stages of this process.

A compliance agreement for all Receivers of Processed Host Material must be signed. In addition to the signing of this CA, the office of the agricultural commissioner in the destination county for this processed FFHM must be notified of the impending shipment(s).

It is important to note that the receiver of the processed host material must not resell this material in its raw form and should not be intending to store it for long periods of time. A visit to the receiving site is in order to verify that the materials are in fact being delivered to the designated site location, as

well as determining that the receiver has the means to handle the quantities of material being delivered.

Project officers should:
- Meet with owner/manager of receiving company; explain CA and have them sign it and receive a copy
- Walk with establishment representative at delivery site/destination
- Verify that site can handle quantities delivered
- Verify that site is equipped to process in the manner stated/stipulated.

Regulatory Activities In FFHM Distribution Areas

When a fly find occurs in an area such as a wholesale produce market district and the immediate, surrounding vicinity (all of which contain produce vending establishments), project officers need to utilize current regulatory information and background on distributors and wholesalers in the area, compiled by the county's office of the agricultural commissioner. All distributors, fruit sellers, vendors, and yard maintenance workers in the quarantine area constitute quarantine risk factors due to the fact that they are individuals involved, in one way or another, with the movement of FFHM.

The project's overall objectives are to both stop the spread of exotic fruit flies from the original area of infestation as well as to eradicate them. Regulatory officers require quarantine compliance from any individuals or groups (i.e., distributors, fruit sellers, vendors, and yard maintenance workers) who have contact with host material. Due to the large amount of FFHM than can be stored, handled, or shipped into and out of a quarantine area on a daily basis from their establishments, all distributors must follow safeguarding guidelines. Project staff can:
- Explain rules and regulations such as distributors guidelines
- Issue and have owner/manager sign Distributor CA
- Attach host list and quarantine map to CA copy that distributor representative receives
- Regulatory officers will periodically visit for compliance monitoring.

Distributors

Project staff should explain the following points:
- All exotic fruit fly host material must be bought from commercial sources located outside all quarantine areas: valid receipts must be kept on site and readily accessible to inspectors.
- All loading and unloading of trucks must be completed within 1 hour of arrival if involving FFHM. If not completed within this time frame, safeguarding must be initiated.
- Safeguarding will be required from dawn until dark (i.e. sunrise to sunset), each day.
- The fruit fly project defines safeguarding, as
- "any approved method that eliminates the potential for fruit flies to contact and infest host material."
- Packing or sorting must occur in an enclosed area, or be moved to nighttime activities.
- Since doors are open to warehouse more than a cumulative time of 1 hour each day, all host material that is not refrigerated (58^{o} F or below) must be safeguarded using approved available options (i.e., screening, Fly Guard®, shrink wrap, plastic stripping, or other methods as approved by the project).
- Garbage consisting of or containing host material culls must be placed in tied plastic bags or in covered containers and destined to an approved landfill (see attached list). All containers, and equipment must be thoroughly cleaned of all residual host material capable of harboring any stage of the fruit fly.
- Distributors must adhere to all restrictions on compliance agreements. Non-compliance will result in written violations and host material seizures and may lead to civil penalties issued by the county's office of the agricultural commissioner. Repetitive non-compliance may

result in the revocation or cancellation of the compliance agreement to sell host material.

Fruit Sellers

Fruit sellers, both retail and wholesale establishments (such as chain supermarkets or small stores) that handle host material should sign a Fruit Sellers Compliance Agreement.

Project staff should accomplish the following:

- Explain quarantine rules and regulations
- Issue and have owner/manager sign CA
- Attach host list and quarantine map to the copy of the CA the fruit seller receives
- Provide a quarantine poster to be posted for public information on premises
- Notify staff that project officers will periodically visit for compliance checks

Retail Establishments that Sell Fruit

- The management staff must to be informed that they need to instruct their employees about quarantine requirements and that management will be held accountable for any safeguarding violations due to the actions of their employees or customers.
- Emphasize that offering for sale untreated and/or unprocessed, backyard FFHM is a violation of quarantine restrictions.
- Project officers can request documentation establishing proof of origin (i.e., a wholesale receipt) for any suspect FFHM they see.
- Project officers will inform retail establishments in a timely manner of changes in compliance agreements or quarantine guidelines.
- Doors
    - Automatic doors must immediately close after opening
    - Manual doors must be kept closed or safeguarded
    - Top – of – door – to - floor safeguarding strategies utilized can include screen doors, or the use of screening material (of 16 gauge or smaller) covering doorway completely, or positioning overlapping, heavy plastic strips in the doorway
    - "Air curtains" over the doorway, which direct a strong current of air out of the building, are a barrier against fly-ins and are also an acceptable method of safeguarding. Strips of paper or tape can be attached to the air blowers to visually indicate, even from a distance, that they are functioning properly
    - Note that box or ceiling fans do not generally produce a strong enough current of air to prevent flies from entering through a doorway; their use for this purpose is not effective.
- Windows and transoms, often located above doors or in the delivery dock areas, must be kept closed or completely and securely screened to prevent flies from entering.
- Holding Areas, Loading Docks and Side Yards
    - Entire area must be kept safeguarded with the above-mentioned physical barriers or air curtains, or the boxes/bins of FFHM may be covered with screening that doesn't touch the fruit, thus preventing the fly from ovipositing
    - Plastic film is an alternative covering but doesn't allow air circulation; any ventilation holes in the plastic must be less than the diameter of a pencil eraser.
- Refrigerated Coolers
    - Lidded containers are best and the air temperature around the FFHM must be maintained at 58^{o}F or below at all times. The top layer of fruit must be enveloped in cold air.
- Delivery Vehicles
    - Transfer of FFHM into and out of the establishment must be accomplished in

a timely manner. No selling of FFHM is allowed off the trucks unless the FFHM is kept safeguarded in the process
    - Restaurant delivery vehicles should be contacted and made aware of these restrictions.
- Posters need to be displayed in a conspicuous location, either near the cashier(s) or the entry/exit door(s).
- Culled or Discarded FFHM
    - All garbage and culls must be safeguarded
    - Encourage the use of plastic bags to contain the material before it's deposited in the dumpster
    - Otherwise the dumpster must be kept covered by a lid at all times when it's not empty.

Vendors

Vendors operate in two different ways, as either **mobile vendors** driving from neighborhood to neighborhood selling produce from their trucks, or **street vendors** selling at selected corners of freeway/highway off-ramps. All mobile vendors have to sign a Vendor Notification, so that regulatory officers can have a record of which vendor has been notified of the quarantine and informed of compliance requirements to safeguard their FFHM.

Street vendors often have no vehicle identification number or street address where they can be contacted/ visited for compliance monitoring. They often move from corner to corner, so it is important that as many street vendors as possible be informed of the quarantine, know how to keep FFHM safeguarded, observe proper disposal techniques for discarded host material, and understand the possibility of fruit confiscation due to compliance violations.

Project staff should accomplish the following:
- Explain quarantine rules and regulations
- Have mobile vendor sign Vendor Notification
- Attach host lists and maps to copy of Vendor Notification
- Street vendors are informed via handout and given host list and map of quarantine.

Yard Maintenance Workers

Yard maintenance worker activities are considered high risk since there is the potential for long distance movement of clients' backyard host material either for disposal or personal use, to areas outside the quarantine boundaries. **Each** yard maintenance worker who works within the quarantine area should be signed up with a compliance agreement with an attached Yard Maintenance Exhibit.

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They are then issued a yard maintenance sticker that is to be placed on the inside lower left front windshield of the vehicle (see example above). This allows other regulatory officers driving by in their own vehicles to determine if this worker has been signed into compliance, and is therefore eligible for spot checks and inspections to ensure they are in abiding by the quarantine's regulations.

Project staff should accomplish the following:
- Inform worker of fruit fly quarantine and have the person sign the appropriate CA
- Attach a host list and map of quarantine to copy of CA
- Issue sticker for vehicle and instructions on its

placement.

Certified Farmers' Markets

Certified farmers' markets (CFMs) are of considerable concern during an exotic fruit fly outbreak for a number of reasons:

- FFHM is being sold within the quarantine area, which, if infested and transported by a customer out of the area, might cause wider dispersal of the pest (again, consider what happens with infested FFHM smuggled in parcels).
- Culls and other garbage susceptible to infestation are by the very nature of the market generated on site. If left exposed and not safeguarded, they provide the adult pests with breeding and egg-laying opportunities.
- Of even greater concern is the fact that in many cases, farmers come to the markets from farms located miles outside the quarantine area, to sell fruits and vegetables and then return home with their unsold produce. While offered for sale, if this unsold host material has not been kept constantly and completely safeguarded, and gravid (egg-bearing) flies have managed to lay eggs in it, the risk of spreading the infestation to areas outside the quarantine is greatly increased. Note that these farmers and growers could be returning home with produce, possibly infested, to the very sites (i.e., their farms and groves) that have available abundant food resources for exotic fruit flies. To a fly these circumstances are ideal!

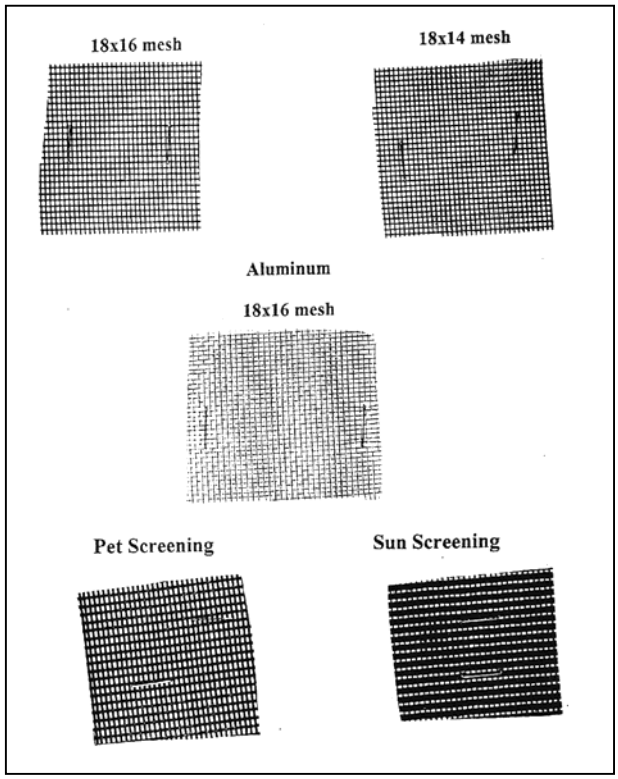
Having made these points, you should now understand that as a regulatory inspector, all such host material that an exotic fruit fly had access to becomes highly suspect as possibly infested. The adult fly does not necessarily have to alight directly on FFHM to infest it, more about this below when screens are discussed. When seizing the FFHM to ensure its destruction and eliminate the fly risk, the regulatory officer must balance the loss to the farmer of confiscated FFHM versus the potential damage and costs of the pest spreading further. This is not a punitive measure, although willful non-compliance can result in fines and other punishment measures; it's done to ensure that host material, which could be infested with eggs or larvae, doesn't leave the quarantine area and find its way to other growing grounds.

So how does a seller comply with fruit fly regulations while openly selling FFHM in a quarantine area? The answer is: by using any approved method that prevents the fly from laying eggs in FFHM. The following methods described below are only some that have been found effective; creativity by individuals could lead to even more ways to accomplish safeguarding of FFHM.

- **Tarping:** the cheapest way to protect FFHM on display is by covering it with plastic sheets. Canvas tarps, rubberized tarps, etc., will work just as well, but since the idea is to have FFHM easily visible to customers, most farmers like to use clear plastic sheets. This will work, but it does have limitations. It is not enough to just cover the FFHM with the sheet, there must be no gaps, folds or tears large enough for a fly to crawl through, that is, no holes with a diameter larger than a standard pencil eraser. For the farmer this will mean constant monitoring as customers lift each sheet to examine and/or pick produce items for purchase. Not only customers, the wind also has a knack for listing plastic and leaving FFHM exposed to flies. Plastic sheets will do the job but the farmer should be warned, there is a lot of work involved running around securing the edges as customers loosen them again and again as they shop. Failure to maintain safeguarded conditions can result in many produce seizures and written violation notices from project officers. Some ways to avoid this are to tie down sheets at their edges with bungee cords or to weigh down the edges by attaching objects to them (such as metal washers or sticks). Once a customer has made a selection, the weighted sheet will fall back into place and continue to

safeguard the FFHM.

- **Screens:** Insect screen (see examples below) is another, inexpensive way that gets the job done but has the same drawbacks as plastic screening, plus some of its own. Plastic will form a complete barrier to flies and can be in direct contact with the FFHM. Insect screen, however, allows the fly to lay eggs in fruit without otherwise coming into contact with the produce. Female exotic fruit flies use a tiny, sharp, hollow spike at its rear end, called an ovipositor, to pierce the skin of the host fruit to inject its eggs into the pulp. This ovipositor is small enough to fit through the gaps the screen. If the screen is touching or just very close to the FFHM, the fly cannot get directly to the fruit, but it can still poke its ovipositor through a gap and lay eggs in the fruit. What this means is that the FFHM must not only be kept screened, but in order to be effective, the screening must not be in contact with the fruit skins.



The farmer will need to constantly monitor this situation. Some ideas that would reduce the amount of work this causes are to:

  - Build a framework out of wood, PVC tubing or aluminum and attach the screening (or plastic sheeting) to the frame with clips or staples.
  - Another method is to put the produce in boxes or containers (which have no holes in them larger than a pencil eraser), and fill them only to below a half-inch of their top edges.
  - Screens can have their edges weighted down as was described for plastic sheets.

String net bags are not an acceptable safeguarding method, since the holes in the bag are usually much larger than a pencil eraser and will allow direct contact with the FFHM inside.

- **Plastic Bags:** Probably the cheapest, most foolproof method of compliance available. Of course, the end of each bag must be closed or tied shut, and its ventilation holes must be no larger in diameter than a pencil eraser.

- **Cases/Boxes/Containers:** An alternative method of compliance is the use of display cases or boxes. These can be made from almost anything, including cardboard boxes with a lid (again, no gaps, slits or handholds, and ventilation holes should be no larger than a pencil eraser). Sometimes the top of the box lid is cut and either clear plastic or screening (not touching the FFHM) is taped on to allow viewing of the produce. Wooden containers with clear plastic lids are an option, with fly-proof small holes drilled in them for ventilation. Some of these lids are attached to the container with self-closing hinges, which saves time making sure FFHM is covered. Although expensive, these boxes may be a good investment in areas that have recurring fruit fly quarantines. Having them available as insurance against the next quarantine saves time in improvising a last minute safeguarding method in order to sell FFHM.

Despite the best safeguarding efforts, none of the methods described here provide complete

protection, as customers continuously remove and then fail to replace safeguarding material such as plastic and screens. Due to the distinct possibility of FFHM becoming infested at the market and then returning to non-quarantine areas, the remaining FFHM on display at the end of each market day cannot leave the quarantine area. It is in each farmer's best interests not to overstock the displays, and only place on view what can be sold that day. **All on-display FFHM that is not sold must be properly disposed of at the market before leaving the quarantine area.** If the farmer is planning to visit other markets during the week and will not be leaving the quarantine area with previously displayed (and possibly compromised) FFHM, this produce may be utilized for sale until it is time to leave the quarantine area. At that time, all displayed FFHM that was under screen or plastic must be disposed of by placing it in plastic bags or buckets or covered dumpsters at the last market. Some farmers may choose to donate the unsold FFHM they surrender to local (i.e. within the quarantine area) charities and food banks.

Set-up time: another point that needs to be stressed is that, due to the risk involved, no set-up time is allowed within the quarantine area. FFHM must either enter the area already protected or this must be done immediately after arrival at the market. If FFHM is unprotected in the transport vehicle or the farmer decides to take time to set up safeguards at the market site itself, a regulatory officer may choose to seize the stock. All FFHM displays must be immediately covered or risk confiscation of the produce.

Reserve stock: this refers to FFHM that has been brought to the market in hopes of a sale, but which is not yet on display due to space limitations. The usual practice is to keep this material in the transport vehicle until it is needed to restock the display. It is allowed to transit the quarantine area with FFHM unprotected and stop at all traffic signals and signs, and not be out of compliance. The rush of air around and through a moving vehicle will not allow an exotic fruit fly to land on FFHM. Once stopped for reasons other than a momentary traffic signal, all FFHM must be immediately safeguarded. If the transport vehicle or conveyance is closed (i.e., it has no open windows, vents or other gaps) keeping it shut is sufficient protection. Likewise, a closed car trunk is adequate safeguarding whether moving or stationary. If the farmer is utilizing a flatbed or open pickup truck and the FFHM is in closed boxes or in plastic bags (neither of which has holes larger than a pencil eraser), the material is adequately safeguarded. If the farmer chose to tarp the entire load, and there were no gaps in the tarp or along its sides, that would also constitute adequate safeguarding.

Garbage and culls: all discarded FFHM with pulp must first be placed in sealed plastic bags and then these are deposited in a covered dumpster provided by the market's management staff. This discarded material cannot leave the quarantine area, even for composting or other purposes, unless the destination facility is already under compliance.

Each grower only signs one compliance agreement even though they may attend more than one farmers market while in the quarantine area. The list of growers that have been signed into compliance should be checked to determine if a particular grower has been signed up.

If the farmer has signed a CA, then the field inspector needs to fill out a new field card for that grower at that CFM. All aspects of the quarantine should then be explained to the CFM manager, and all necessary paperwork and information handouts provided to her/him. Each manager of the different CFM's signs her/his own CA for that particular market.

Posters (preferably laminated for all-weather use) in English and another common language (e.g., Spanish) should be put on prominent display along major foot traffic areas in the CFM.

The following are some good local sources for determining the locations and operating times of CFM's in a particular fruit fly quarantine area:

- lists maintained in the chamber of commerce office(s)

- publicly posted banners, posters or advertisements announcing a CFM
- Department of Parks and Recreation offices
- asking growers who are being signed up for treatments, many of them are planning to sell their produce at area CFM's.

Swap Meets and Flea Markets

Swap meets and flea markets are permanent places set up inside or outside buildings, drive-ins, church parking lots, and other public or private venues, which sell produce, automobile accessories, clothing, and often agricultural commodities (both FFHM and host plants in soil), to the general public.

Project staff should accomplish the following:

- Both the individual fruit or plant sellers at a swap meet and the manager of the swap meet each need to sign a compliance agreement with the fruit fly project
- If a fruit or plant seller is at more than one swap meet, s/he must sign a CA for each swap meet where his/her FFHM or plants are offered for sale
- Both the fruit or plant seller and swap meet manager should each be provided with a host list, quarantine map, exotic fruit fly pamphlets and posters.

There are two different CA's for swap meets, *depending upon whether the business is conducted indoors or outdoors.* For the **indoor** swap meets, the best way for the fruit sellers to be in compliance is through the use of air curtains or keeping external doors to the building closed. If the manager of the swap meet does not provide the air curtains, then it will be the responsibility of the individual fruit sellers to keep the FFHM protected with either plastic barriers, screens, temperature control or any other approved method(s).

For **outdoor** swap meets, compliance means safeguarding FFHM at all times. Continuous covering of the host material with plastic sheets or 16-gauge screening is acceptable. If screens are the protection method, the fruit seller must be advised that the screen is not to touch the host material at any time or flies could oviposit into the fruit through the screen.

Additionally, any FFHM that is stored in the back of vehicles as overstock must be kept protected at all times. The most common method is to keep the vehicle's doors and windows closed at all times. All culled FFHM that is to be discarded must also be protected either in closed containers or plastic bags.

Following the CA explanations to each fruit seller, it is necessary to explain the violation system and the consequences of noncompliance. If FFHM has been exposed for a period of time and therefore possibly **compromised** (i.e., potentially exposed to the risk of fruit fly infestation), a Written Warning or a Notice of Violation should be issued. The standard procedure is to issue only one Written Warning per documented history of the fruit seller. The compromised FFHM is also seized at this time.

If a Written Warning is issued, the fruit or plant seller is informed that the next time they are found noncompliant, a Notice of Violation will be issued and that will be followed by a supervisor's visit. If subsequent violations are issued following a supervisor's visit, the fruit or plant seller could be required to attend a hearing before the county agricultural commissioner, and possibly subjected to monetary fines.

Homegrown or Backyard Fruit

The one situation where safeguarding of FFHM is not an issue, regardless of the method(s) used, is when the host material is homegrown (i.e., backyard), originates from within the quarantine, and has not undergone bait treatments (i.e., certified with a Limited Permit). It is perfectly acceptable to consume FFHM under these circumstances *on the premises where it was produced.* In addition, homegrown FFHM that has been subjected to processing may also be consumed at any location without safeguarding concerns.

Having noted that, all fruit sellers need to be continually reminded to retain and have accessible commercial receipts showing proof of origin for the FFHM they are selling and that selling of untreated, unprocessed, homegrown or backyard FFHM from within the quarantine is a violation of their compliance agreements. If at any time a project officer suspects that homegrown FFHM is being offered for sale, they may request from the fruit seller the required documentation (e.g., a receipt or Limited Permit).

If the seller cannot produce either document, or admits to selling untreated backyard FFHM or plants from within the quarantined area, all of the suspect FFHM needs to be seized and a Notice of Violation issued. Written Warnings are not issued when untreated, homegrown FFHM is being sold. It is equally important that a Hold Notice be issued for the crop plants on the property where the host material was grown.

A separate field card needs to be filled out for the Hold Notice. The field card is then turned in at the end of the day so the team that works the zone where the production property is located can utilize the information. It's the responsibility of that team to go to the property as soon as possible to confirm that the FFHM source plants have been put, and remain, on hold. This issue applies to sellers of FFHM and host plants, at both indoor and outdoor swap meets.

Swap meet fruit sellers are also not exempt from bagging their FFHM culls or discards. However, most swap meets will have a general, covered central dumpster with a lid, for the convenience of all their fruit sellers. This makes it almost impossible to tell which fruit seller is not bagging their FFHM for disposal. One solution is to inform each fruit seller that they will all be given an NOV if any FFHM is found exposed in the dumpster.

During each regulatory field officer inspection, a record of the visit can be logged on the appropriate field card. It is helpful to be descriptive in the entries and especially important to indicate on the card anything that was discussed in regard to compliance problems the fruit seller may be experiencing. If a written warning or NOV is issued, include full details in the written documentation of the visit.

Always keep in mind that the primary objectives are to *get the fruit seller into compliance and keep them there.* Give them the benefit of the doubt if it's obvious that a sincere effort is being made to be in compliance. Acknowledge that constant customer fruit inspection activities during purchases can result in protective coverings being pushed aside, exposing FFHM for varying periods of time.

If, in the officer's judgment, this is resulting in constant exposure, suggest alternative methods for safeguarding. Fruit sellers usually appreciate these suggestions, which demonstrate an interest in having them remain in compliance, avoid NOV's and monetary fines, and possible expulsion from the swap meet.

Community Gardens

Community gardens are plots of land that are usually managed by local municipalities or community associations, and provide the residents of an urban area with the opportunity to grow their own fruits and vegetables in convenient locations near their residences. Some community gardens charge a fee for the use of their plots, while others require each grower to donate a few hours per month to maintain and clean the common areas of the gardens. Weekends are a good time to visit these gardens since the majority of growers are often attending their individual plots at that time.

During an exotic fruit fly quarantine, the entire garden itself is put under a compliance agreement, *not* the individual growers in the garden. This type of gardening is considered a high-risk activity for two reasons:

- The FFHM could become compromised (i.e., infested) while growing in the garden
- There exists the potential for movement of the fruit by growers to other locations outside fruit fly quarantine boundaries.

Project staff should accomplish the following:

- The garden manager is put under compliance
- He is instructed to continually advise new and ongoing tenants about adherence to mandatory quarantine and regulatory stipulations and restrictions.
- On the initial contact with the manager, inform him/her that the project needs a list of the names and addresses of the gardeners.
- Check the addresses of the growers to ensure that none of them lives outside the quarantine's boundaries.
- If someone does have an address outside the quarantine, they need to be advised that no unprocessed FFHM can be taken home from the garden.
- Every tenant should be sent a letter advising them of these quarantine restrictions; letters should be mailed ASAP.

Periodic inspections are necessary to monitor the uses of site-grown FFHM, possible problems with pilfering or theft of FFHM, and the handling of FFHM garbage. If the community garden is located within the core area, additional regulatory stipulations will be enforced. Quarantine posters can be put up around the garden to inform and remind the users of the ongoing quarantine and its restrictions.

A good source for locating community gardens is to check with each city's department of parks and recreation. They can often provide listings or addresses of all such gardens within the municipality. The departments need not administer them, but do maintain files of their addresses. School district offices in each area often can provide information on local gardens. Some schools themselves conduct agricultural programs on-site that require regulation in a manner identical to that used for community gardens, or they have leased out part of their property to the local community for use as a garden.

Yard Sales

Homeowner yard sales selling or giving away homegrown FFHM are considered a high-risk activity. This is due to the potential for long distance movement of possibly infested backyard host material, that will be used either for personal consumption or given away to family and friends. Yard sales are particularly common on weekends.

Routine regulatory activities on any day of the week should involve monitoring of these sales. Good information sources for yard sale locations are the classified advertisements in local newspapers and signs posted on neighborhood street poles. In the course of their scheduled regulatory duties within the fruit fly quarantine area, field officers should note any street signs that mention upcoming yard sales, church bazaars, rummage sales, or charity programs.

Project staff should accomplish the following:

- Contact, via phone or in person, the organizers of the event to advise them of the quarantine and the restrictions on selling or giving away untreated or unprocessed FFHM or plants.
- A hold notice, but no compliance agreement, is signed for yard sales.
- A field card is filled out and passed on to the project officer(s) assigned to cover that area, to enable and ensure follow-up visits to monitor compliance.

Public Transportation - Airports, Train Depots and Bus Stations

If a quarantine area includes airports, bus stations or train depots, regulatory procedures must be enacted to prevent the spread of the infestation through these various modes of transportation. Air, ground and rail transport are high-risk activities since passengers may move homegrown or uncertified FFHM to areas well outside of the quarantine. The movement of infested FFHM in this manner could result in the introduction of exotic fruit flies into other parts of this state, the U.S., or other countries, and seriously impact the agriculture industry in these areas.

Project staff should accomplish the following:

- Following a fly find regulatory officers should contact management representatives of each airline, cargo handling company, airline caterer, bus station and train station, and notify them of the fruit fly quarantine restrictions
- Distribute information packets containing a map of the quarantine boundaries and FFHM lists
- Ask the appropriate representative of each establishment to sign a compliance agreement.
- Place informational posters at each site in well-lit areas where the traveling public can easily view them.

Periodic, unannounced inspection visits to these facilities by regulatory officers are made to ensure compliance, especially the proper disposal of FFHM. Once fruit has been confiscated from passengers or other sources, it can be quickly inspected for larvae, which, if present, should be preserved, bottled and sent for scientific identification to authorized state or federal biologists. The remaining FFHM is then disposed of either via double plastic bags in a quarantine dumpster or in a federal disposal facility for confiscated materials, maintained at all international airports by USDA/APHIS/PPQ inspection staff.

Fruit disposal bins, the so-called “amnesty bins,” should be placed on the departure level of domestic flights in airports and in front of departure gates at bus and train terminals. Quarantine signs on metal stands positioned next to the bins can be used to alert and inform the traveling public about the current quarantine, and to encourage and direct the voluntary disposal of any uncertified FFHM they may be carrying. Metal sleeve holders for informational brochures on the fruit fly quarantine can be attached to these stands as well.

This form of voluntary compliance can result in the collection of many pounds of surrendered fruit each week. Security personnel, ticket agents, baggage handlers and sky caps are other sources of information in the terminals, and can page project inspectors on duty at the terminal to respond to situations where travelers are carrying or shipping possibly compromised FFHM.

Marine Shippers of FFHM through California Ports (including but not limited to the Ports of Long Beach, Los Angeles, Oakland, San Diego, and San Francisco)

A fruit fly quarantine affects all foreign imports and exports, as well as allied shipments that transit the quarantine area by ship, truck and rail. Many of California's most important trading partners are extremely concerned about the consequences that could result from the accidental importation of FFHM infested with exotic fruit fly larvae. Specific requirements have been established to safeguard commodities being shipped out of any area under a fruit fly quarantine. Any attempt by maritime steamship lines or shippers in California to circumvent the safeguarding requirements of a fruit fly quarantine could have potentially serious consequences for the export and shipping industry, and result in the suspension and loss of trade with our foreign partners.

Solutions to these problems result from the negotiations with and the signing of compliance agreements by any company involved in the handling of FFHM. These agreements ensure that the fruit handling establishments knows the fruit fly quarantine requirements. The primary purpose of CA's is to educate shipping interests and specifically state the manner in which the host material must be handled to guarantee against infestation.

Items included and emphasized on a standard compliance agreement exhibit:

- requirements ensuring that screening barriers are placed to specifications
- monitoring the temperature of cargo to make sure that it does not exceed 58^{o}F
- proper disposal of all discarded fruit
- adherence to the regulations restricting the movement of FFHM.

The key issues to be addressed at any port by project officers would be:

- **Exports -** protecting our exporting interests and compliance with foreign country safeguarding requirements
- **Imports** - preventing the spread of exotic fruit fly infestations and serving the surrounding communities as an information resource.

Phytosanitary Exotic Fruit Fly Requirements and Export Summary

- All FFHM grown, produced or packed in any USDA/CDFA area under an exotic fruit fly quarantine is officially prohibited for export. However, there is an allowance made for exporting FFHM grown outside the regulated area and then transiting and/or being transloaded within the regulated area, if it's kept safeguarded.
- Safeguarding measures allow exotic fruit fly host fruit transiting or undergoing transloading in regulated areas to be certified for shipment to countries such as Japan.

The following safeguard measures must be applied at all times and verified:

- **When *Transiting* Regulated Areas**
  - In Closed Shipping Containers
    - The container must not be opened during transit
    - The doors must be sealed with official or commercial seals.
    - If the container has ventilation ducts, they must be covered with 16-gauge mesh or smaller screen.
  - **In Shipping Containers Having Openings**
    - Commodities must be packed in closed packages. This option allows the packaging of several cartons having openings into one closed package; for example, packing one pallet of strawberry boxes into one closed package. A closed package could include one formed by waterproof plastic or fabric tarpaulin applied to completely surround a pallet-

load stack of fruit boxes.
- For packages (shipping boxes, bags, etc.) that have openings such as ventilation ducts, all openings must be covered by 16-gauge mesh or smaller screens.

- **When *Transloading* within Regulated Areas**

In the event that packages with openings are transported into regulated areas in closed containers and then must be transloaded into shipping containers (e.g., air cargo containers, etc.), such transloading can only be conducted in facilities designed in a manner to prevent the entry of exotic fruit flies, such as screened rooms or cold storage facilities, etc. APHIS will determine the suitability of facilities and monitor all transloading activities.

The following certification procedures must be followed:

- A Federal Phytosanitary Certificate (FPC) is issued with an Additional Declaration (AD) stating, "This shipment has been produced in an area outside of quarantine regulated areas for _____ fruit flies"
- For produce of California origin, the county of production is shown in the "Place of Origin" block
- In the "Means of Conveyance" block, the safeguarding measures applied are stated (i.e., "sealed container" or "screened and sealed container," etc.)
- If the commodity has been transloaded, the FPC contains an Additional Declaration stating the commodity has been transloaded within the regulated area for _____ fruit flies. The details of the safeguarding procedures applied during transloading are stated on an attachment to the FPC. The attachment must be signed, dated and on official letterhead. The FPC number is referred to on the attachment.
- Materials considered hosts by the Japanese authorities are all hosts of fruit flies listed in 7 CFR Section 301, plus all varieties /cultivars of lemon. In addition, the Japanese agricultural ministry has identified additional fresh fruits they consider FFHM that are not regulated by USDA or CDFA. That list is as follows:
  - Broad Bean (*Vicia faba*)
  - *Cucumis* spp.
  - Chayote(*Sechium edule*)
  - Okra (*Hibiscus esculentus*)
  - Common Bean(*Phaseolus spp*.)
  - Pea (*Pisum sativum*)
  - Cowpea(*Vigna sinensis*)
  - Strawberry (*Eragaria* spp.)
  - *Cucurbita* spp.
  - Watermelon(*Citrullus vulgaris*)

Regulatory Action in Maritime Locations

An outbreak of exotic fruit flies, which places a maritime location within the boundaries of a quarantine, has a significant impact on numerous port industries. Steamship lines, brokers, packers, stevedoring companies, docking facilities, teams of longshoreman, and ship chandlers must conduct business under new restrictions which may involve changes in their normal daily operations.

Federal, state and county agricultural officers must serve as a primary source of information about quarantine requirements and establish regulatory policies, which address two key issues:
- Export interests of the country and state must be protected. This involves strict inspection procedures, which certify compliance with the requirements of foreign countries
- The potential spread of a fruit fly infestation must be limited. This involves compliance checks to see that safeguarding measures are properly implemented.

The regulatory response to an exotic fly find in a maritime location should begin prior to the establishment of a quarantine.

After a fly find: prior to establishment of a quarantine:
- Identify types and numbers of industry concerns that will be affected.
- Establish communication with involved parties

to identify a contact person in
    - Port industries
    - Regulatory offices - federal, state, and county
- Initiate preparation of information packets to be distributed; packets will contain:
    - Cover letter
    - Host list
    - Quarantine map
    - Sample compliance agreements
    - Informational brochures
- Identify personnel with expertise in fruit fly quarantine policies in order to:
    - Update compliance agreements
    - Determine staffing and equipment needs
    - Conduct training for port personnel
- Conduct informational meetings to explain possible quarantine and let involved parties know that they will be required to sign a compliance agreement if quarantine goes into effect.

After a quarantine has been established:

- Finalize informational packet components
- Contact or visit involved industries to have compliance agreements signed and distribute information
- Identify industries or establishments that may have special requirements or circumstances.
- Assign regulatory visits to monitor compliance based upon an analysis of pest risk.

Disposal of Fruit Fly Host Material

In preparation for an announced quarantine, initial contact can be made with the local sanitation district or the county agricultural commissioner's offices to obtain lists of area recyclers and landfills. Regardless if they are within or outside the quarantine boundaries, landfills or recyclers who receive FFHM from the quarantine zone should be put under compliance.

The risk of spreading an exotic fruit fly infestation continues up to and including the final disposition of the FFHM waste. This can include but is not limited to pulp, rinds or skins from spoiled, discarded, or confiscated FFHM and the waste from fruit processing. Not only must these FFHM discards be safeguarded to prevent exotic fruit flies from using them as ovipositing sites, but material that could *already* contain eggs or larvae must be treated and/or isolated to either destroy the fruit fly infestation present or prevent its complete life cycle development.

These objectives can be achieved by several different means; the choice of eradication mechanism(s) employed is based as much on cost effectiveness and efficiency as on fly biology. The ultimate goal is to prevent the emergence of adults from soil-dwelling pupae; any break in the life cycle stages of the fly will achieve this.

Infested material buried in compacted soil or other closely packed material, to a depth greater than one inch, will prevent adult emergence from pupae cases. Title 14 of the California Code of Regulations (Article 7.5 - Disposal Site Operations) addresses the subject of the depth and frequency of cover material put on top of waste (§17682) to prevent subsequent human or environmental problems. Since a minimum of six (6) inches is required in all circumstances for disposal sites in California, this requirement will also prevent adult exotic fruit fly emergence from infested FFHM buried in landfills.

Three aspects of FFHM disposal to be considered are:

- FFHM that has been confiscated from businesses or stripped from nursery stock can be double-bagged in plastic sacks by regulatory inspectors. These sacks can then be temporarily stored in a covered dumpster before eventual burial in a designated landfill. A contract can be signed with a professional hazardous waste service to arrange for periodic pick-up and emptying of the dumpster/bin from its site near the exotic fruit fly project facility. A landfill under compliance can be utilized as the final destination for this FFHM waste and an exotic

fruit fly inspector can monitor the incineration and/or burial of the material in adherence to compliance guidelines. The company transporting the waste as well as the landfill should each sign a compliance agreement with wording appropriate to their business and the risk of spreading the exotic fruit fly infestation.

- Businesses that process raw FFHM into other products (e.g., citrus juice or tomato sauce) can arrange to transport the byproducts of processing to landfills for disposal, composting facilities to use as soil amendments or to feed lots for livestock consumption. This discarded material could be heat treated, ground, dried, and/or just kept safeguarded (via storage in closed containers) prior to transport. Processors should sign an appropriate CA that addresses the subject of the disposition of these byproducts.
- Each recycling business that accepts FFHM as an ingredient in its production of composted soil amendments must also sign a specific compliance agreement that addresses exotic fruit fly quarantine concerns. The compliance agreement should address concerns involving both the handling and storage of the uncomposted material, as well as the temperature and duration of the transformation process itself. In each compost mound, an appropriate internal temperature (i.e., 112 ^{o}F or 44.1 ^{o}C, *preferably higher*) must be maintained for several hours to ensure the destruction of any exotic fruit fly eggs, larvae or pupae that may be residing in the mound.

A visit report can be prepared for each initial inspection of a waste facility and can serve a dual function as a record of the inspection activity and as a reminder for follow-up actions and contacts. It is not uncommon for an establishment's management representative to seek the advice of legal counsel before committing a signature to the compliance agreement. A subsequent visit can be arranged to pick up the signed, original CA and provide the establishment with their copy. It should be explained to the management of landfills and recycling businesses that it may be necessary for project officers to place insect traps on the grounds to monitor for the presence of exotic fruit flies.

Determine whether there is an appropriate disposal site or other processing site within fruit fly quarantine boundaries. This is preferable, but locating an establishment outside of existing boundaries is acceptable if proper safeguarding steps are taken. The disposal of possibly infested FFHM needs to be accomplished in a manner that ensures it is transported safely to a final disposal site and is either buried or otherwise processed without possible reintroduction of the pest into the environment.

- **Landfill (burial) Options**:
  - First determine whether someone from the fruit fly project will be transporting FFHM to the site, or a hauler will be picking up from a specified location on specified dates
  - If a hauler will be utilized, initiate a standard compliance agreement with an exhibit that specifies the safeguarding procedures that should be used. Make sure there is a secure, safeguarded location for the FFHM to be stored until the hauler is able to pick it up
  - Visit the landfill and initiate a standard compliance agreement with an exhibit that stipulates the procedures that will be followed for safe transfer and destruction of FFHM. Include a statement allowing for project personnel to be able to make spot inspections of landfill to determine whether FFHM has been properly handled and buried.
  - Inspectors should also plan to witness the burial of FFHM occasionally (state law requires waste to be buried to a minimum soil depth of 6” within a day of arrival at the site). In lieu of immediate burial, FFHM can be heavily compressed, compacted or packed down with machinery upon arrival and buried the next day.

Recycling (Processing) Option:
The same kinds of safeguarding issues apply here:

- A standard compliance agreement should be issued with an exhibit specifying handling, storage, and temperature requirements. Again, include a statement allowing for project personnel to make regulatory visits with provisions for temperature testing of compost piles.
- Composting must achieve and maintain an internal pile temperature of 112 °F *for several hours* in order to assure destruction of any life fruit fly life stages present in the FFHM.

Guidelines for Collecting Evidence and Noticing for Quarantine Violations

Step 1: A Quarantine Violation is Detected

Before there is a need for administrative proceedings, there must have been a quarantine violation. The violation may be in the form of non-safeguarded host material, the sale of backyard host material, or the release of host material prior to inspection by a quarantine or county official.

An example: Two hundred and ninety pounds of sugar apples (*Annona squamosa*), a quarantine item, were placed on hold at Los Angeles International Airport (LAX) due to lack of the proper certification for the Caribbean Fruit Fly State Exterior Quarantine. L.A. County agricultural personnel placed on the container and also on the air bill a quarantine hold tag. An airline employee subsequently released the shipment to the receiver without the certification and without the knowledge of L.A. County officials. Releasing the commodity placed on hold was in direct violation of Food and Agricultural Code Section 6401.

Once the inspector identified a quarantine violation, a Quarantine Violation Report (see page X) was completed and the administrative procedures begun.

Step 2: Gathering Evidence

The process of gathering evidence can be done several ways. It is crucial to gather evidence as soon as possible after the violation(s) occur. If possible, gather as much evidence before you leave the premises. The following list contains items, which constitute evidence. Inspectors are not limited to these listed items, but they provide a basis from which to begin:

- Thoroughly examine all Code sections upon which a quarantine violation is based to determine what elements must be proved to make the case;
- Take photographs of the commodity in violation;
- Get the name, address, driver's license number, birth date, phone number, job title, height, weight, and hair and eye color of the person(s) responsible at the time of the violation (request his/her driver's license or ID card for this information);
- Interview the person responsible for the violation;
- Obtain invoices, bills of lading and any additional paperwork associated with the commodity; request originals, but if not possible, get a clear, legible photocopy;
- Interview everyone involved with the violation: supervisor of the person(s) responsible for the violation, person who picked up the commodity, person who sent the commodity, etc.
- Keep one of the containers in which the commodity came, if more than one commodity is involved, then keep one of each container, place initials on the container and date of seizure for future identification;
- Look at and keep some of the packing material in the containers, newspapers can possibly indicate where the item was

originally packed;
- If applicable, include a copy of the Pest Damage Report (PDR);
- If a copy machine is on the premises, make a clear, legible copy of the violator's driver's license;
- Have each inspector involved write up their own account of the violation, including their name, title, date, time, persons who worked with them, type of commodity involved, and person(s) responsible for violation. Be sure to include all circumstances surrounding the violation; it is usually better to have too much information than not enough; do not include anything in your report you would not want the general public to see. Your report may be reachable either through a Public Records Act request or by subpoena. Once you have transferred your draft notes to a report, dispose of the draft to avoid the possibility of confusion and inconsistent statements;
- Include in the violation package, the original or copies of the Quarantine Violation Report, Notice of Rejection and/or Notice of Violation, inspector/witness statements, and Compliance Agreement.

The list above of evidence will at first appear overwhelming. It will also take more time and effort to collect than inspectors are used to giving to quarantine violations. However, successful prosecution at the administrative or criminal level requires proper gathering of evidence. All the materials listed are not always necessary for administrative proceedings, but the more facts you are able to gather, the stronger your case.

Another example: On a second occasion, an airline employee released an E container of longans (*Dimocarpus longan*), which had been placed on hold at LAX by L.A. County agricultural officials (Non-commercial longans are a quarantine item under the Caribbean Fruit Fly Exterior Quarantine). A yellow quarantine tag had been attached to the air bill. The fruit was released on a duplicate air bill. Releasing the longans placed under hold was in violation of Food and Agricultural Code Sections 6401, 6461, and 6303.

Evidence included in the hearing package for this violation included:
- Paperwork from the first violation in 1988 – Quarantine Violation reports, a letter from L.A. County informing the airline of violations and requesting a meeting, and a response letter from the airline,
- Initial Quarantine Violation for longans,
- Notice of Rejection,
- Second Quarantine Violation for releasing longans,
- Photocopy of original airway bill, and
- Photocopy of duplicate airway bill with Quarantine Notice attached.

The physical evidence gathered for the case should be kept in one location, preferably in a locked case or cabinet. The labeled evidence should not be mixed with evidence form other cases. A "**chain of custody**"* should be established for all physical evidence, detailing what items have been confiscated, where they were kept, and in whose possession they remained during this entire process.

(* a **chain of custody** is a roadmap that shows how evidence was collected, analyzed, and preserved in order to be presented as evidence in court).

Step 3: Interviewing Suspects

Each interview will be unique, however, the basic questions you ask will be the same from one interview to the next. It is best to approach the interviewee with a calm, relaxed, nonjudgmental attitude. You want to collect the facts in a clear and concise manner. If you approach the suspect/interviewee in a hostile and/or condescending manner, you will more than likely the same attitude in return, as well as no answers to your questions. Remember that you are perceived as an authority figure, and the interviewee, possibly fearing for his/her job, may at the very least be intimidated by you. Respect earns respect and keeping this in mind during your interview will make it much more successful.

The basic questions you need to ask are: who, what, when, where, why and how? Ask your questions in an open-ended way, not so a simple "yes" or "no" answer is all that is required from the respondent.

- **Who**
  - Who committed the violation?
  - Who was responsible at the time of the violation?
  - Who signed for the commodity?
  - Who picked up the commodity?
  - Who shipped the commodity?
- **What**
  - What commodity was involved (common and scientific name)?
  - What happened (series of events from beginning to end)?
  - What is the origin of the commodity?
  - What is the usual procedure for handling the commodity?
  - What safeguards are in place to prevent improper release?
- **When**
  - When did the violation occur?
  - When did the commodity arrive on the premises?
  - When was the violation discovered?
  - When did the suspect realize the violation had occurred?
- **Where**
  - Where did the commodity come from?
  - Where was the commodity secured?
  - Where did the commodity go when released?
  - Where was the commodity discovered?
  - Where was the commodity destined?
  - Where did the violation occur?
- **Why**
  - Why did the violation occur?
  - Why wasn't the commodity released?
  - Why wasn't the proper paperwork with the commodity?
  - Why would a commodity be released when placed on hold?
- **How**
  - How long has the interviewee worked at his/her position?
  - How long has the commodity been on premises?
  - How do you know if the commodity can be released or not?
  - How does an employee know if a commodity needs to be held for inspection?

Some people are not going to talk with you; there isn't anything you can do about it. You should not use the threat of legal action against a person to convince them to talk with you. Most people will ask what is going to happen to them as a result of the violation. You should explain that the decision does not rest with you but with your superiors. Let them know they will hear from the county in a letter format, with instructions regarding the violation(s).

Complete an Investigative Report, filling in as much information as possible. This report gives you many of the questions you need answered.

Step 4: Administrative Hearing Paperwork

Each county should check with its legal counsel/advocate for the proper and legal way in which to deal with quarantine violators. The following descriptions have been adapted from a memorandum written by John L. Baker, Agricultural Biologist, entitled "General Plan for Levying Civil Penalties on Quarantine Violators," and from materials of the L.A. County Office of the Agricultural Commissioner.

A county administrative hearing is not as formal as a civil or criminal hearing, but the process should be treated with the same respect. The advocate, witnesses for the county, and everyone intending to represent the county should be on time. Tardiness is unprofessional, and a tardy key witness could unnecessarily cause a delay or cancellation of the proceedings. If your witness wears a uniform on

duty, s/he should wear a clean, well-kept uniform to the hearing. Non-uniformed personnel should also look professional. Worn tennis shoes, worn or ripped jeans, t-shirts, etc., are not professional attire. Instruct witnesses to speak clearly and loudly enough for everyone in the room to hear. The violator will be given the opportunity to question county witnesses. The violator should be treated with the same respect and courtesy as the county advocate. Keep in mind the violator is there to protect his/her business and/or self interests; s/he may be hostile. Witnesses should remain calm and in control under questioning.

Once a quarantine violation has been detected and sufficient evidence has been gathered, both a "Notice of Proposed Action, Grounds Therefore, and Opportunity to be Heard" and "Order and Stipulation" forms should be completed and sent by certified mail to the violator. Make sure to keep the return receipt and make copies of the letters, the certified mail certificate and envelope before mailing, and place them in the case file. The violator has twenty-one (21) days in which to respond by returning the "Order and Stipulation" form. Return of the "Order and Stipulation" form leads to one of three routes of action:

Route 1:

The violator returns the "Order and Stipulation" with payment of the designated fine. In this case the violator agrees to pay the fine and does not contest the violation. Once the fine is paid the case should be considered resolved. There will be no appeal to the Secretary because the violator waived his/her appeal rights by signing the "Order and Stipulation" form.

Route 2:

The violator returns the "Order and Stipulation" and requests a hearing. If the violator requests a hearing, the county sets up a hearing date and sends a "Notice of Hearing" to the violator. The "Notice of Hearing" provides the violator with a date, time, and place of hearing, as well as some instructions as to how the hearing will be conducted. The violator has the right to review the evidence against him/her prior to the hearing at the office of the county agricultural commissioner. At the hearing the violator has the right to again review the evidence against him/her and to present evidence on his/her behalf (follow the hearing procedure listed in the Investigative and Hearing Procedures Manual).

Once the hearing is concluded, the hearing officer will have one to three weeks to make a decision. A "Notice of Decision, Order, and Right to Appeal Following the Commissioner's Hearing," is sent to the violator. The violator has ten (10) days from the receipt of the decision to file an appeal with the Secretary of Food and Agriculture (based on the date of receipt taken from the returned certified mail certificate).

- If the violator does not choose to appeal the decision, it will be effective twenty (20) days after the date of the decision notice, in which case the violator must follow the order of the judge.

- If the violator chooses to appeal the decision, s/he must file a written appeal with the Secretary of Food and Agriculture in Sacramento within ten (10) days of receipt of the Decision Notice. These instructions are printed on page 2 of the Decision Notice. A State Appeal Director is appointed by the Secretary to review the hearing materials, and the arguments provided by the violator. The State Appeals Director receives a copy of the case filed against the violator, copy of all evidence presented at the hearing, and a copy of the tape made of the hearing. This material is reviewed and the State Appeal Director has forty-five (45) days to make his/her decision. S/he can make one of three decisions:

1) Sustain: agree with the Hearing Officer's original decision,
2) Modify: make changes in the original decision, such as reduce the amount of the fine, or
3) Reverse: disagree with the original decision and overturn the decision.

The county is notified of the State Appeals Director's decision and receives a copy of the decision. The appellant (= violator) also receives a copy of the decision. If the appellant still does not agree with the findings, s/he can then file an additional appeal with the county judicial system.

Route 3:

The violator requests a hearing, but s/he, or an authorized representative, fails to appear. In this case, the judge submits a written decision within ten (10) days of the hearing date levying the original fine.

If the fine is not paid, the commissioner has several options to obtain payment, including the "Demand for Payment Letter." If the county's business division cannot collect the fine due, county collections will take over to collect the funds owed. County collections will usually pursue fines equal to or greater than $100.00; they will also keep half of the money collected.

The day or week before the hearing, call your witnesses to remind them of the upcoming hearing; make sure your exhibits have been copied; know where your physical evidence is located; know the questions you intend to ask; and prepare your closing statement.

Step 5: Organizing for the Hearing

- Once the violation occurs, the file should be opened for the case. Use the method, which works best for you, such as, identifying the file by violator name, corporate name, etc. Place all paperwork that pertains to the case in the same file; this should prevent loss of documentation. As an extra precaution you may want to establish a second working file. The working file may be taken from the premises, while the original may stay safely in the office.

- The physical evidence gathered for the case should be kept in one location, preferably in a locked case or cabinet. The labeled evidence should not be mixed with evidence from other cases. The evidence should have the person's initials and date on it and you should know who collected the evidence.

- Outline the sections of the Food and Agricultural Code violated. Review Division 4 of the Code, as there may be more violations than the initial section quoted.

- Complete a list of the witnesses necessary to testify at the hearing, giving their name, job title, address, and phone number(s).

For example: In the airline case listed under Step 2, Inspector X, Inspector Y and Deputy Agricultural Commissioner Z are listed as witnesses for the county. Mr. A., Service Manager, and Ms. B, Service Representative, are listed as witnesses for the airline. Inspector X wrote the violations, which began the administrative hearing process. Inspector Y and Deputy Agricultural Commissioner Z were present at the airline's first administrative hearing for similar violations in 19xx. Y and Z would testify to the airline's violation history, and the steps the airline agreed to in order to prevent future violations. Mr. A and Ms. B were the persons responsible at the time the longans were released without permission.

- Make a list of the questions you want to ask the witnesses. Know the answers to the questions you are going to ask. Prepare the inspectors and county witnesses for the hearing. Go over with them the questions you intend to ask. You do not have to rehearse the answers, but knowing the questions before the actual hearing will make them more at ease during the hearing. Do not tell the witness(es) what to say. You want them to tell the truth, as they know it.

- Decide what materials you will use as exhibits. Exhibits are the pieces of evidence you will offer to prove your case (i.e., Notice of Violation, airway bills, compliance agreements, photographs, containers, etc.) The exhibits will be submitted to the administrative law judge

for the record and a copy will be given to the violator. Make a copy for the court, yourself, and one copy for each violator.

- Closing: The county advocate should be prepared to sum up the case. The summation highlights the important facts in the case. It also provides the advocate with the opportunity to suggest the penalty, and future procedures for the violator to follow in order that the violation does not happen again.

For example: In the case described under Step 2, the airline was sent a letter in which the county fined the corporation $500.00 for the violation. At the hearing, the advocate suggested the $500.00 fine stand, and in addition suggested the airline modify its policy for the release of agricultural commodities.

The procedures outlined above should be used as guidelines, not strict requirements, and can be adjusted to suit the needs of each particular case, as the situation requires.

Validating/Investigating Proof Of Ownership Of Fruit Fly Host Material

Table 1.1: Fruits and Vegetables Inspected

If:	And:	And:	Then:
A fruit fly host	**Inside** the quarantine boundary area	→	Go to Table 1.2
	Outside the quarantine boundary area	→	Go to Table 1.3
Not a fruit fly host	→	→	Release

Table 1.2: Fruit Fly Host Material Inspected Inside the Quarantine Boundary Area

If:	And:	And:	Then:
Valid proof of origin **present**	Fruit safeguarded	→	Release
	Fruit **not** safeguarded	1st Violation	Issue warning notice/release
		2+ Violations	Write violation, seize and destroy load
Valid proof of origin **lacking**	Investigation does **not** provide adequate proof	→	Issue hold notice See Table 1.4

1. Proof of origin to consist of receipts, invoices, etc., containing names and addresses of seller, consignee, type of commodity, amount, date sold, identifying marks of shipping containers, truck license numbers, etc.
2. Safeguarded by means of screening, box covers, tarpaulin, enclosed vehicle, etc.
3. Based upon the previous number of violations and according to project policy, seize the top layer or the entire load.
4. After seizing the fruit, weigh at an approved weighing site if load is in excess of 200 lbs., or at project headquarters if a lesser amount.
5. Example of a Hold Notice in Appendix section, on Page 5D.1

Table 1.3: Fruit Fly Host Material Inspected Outside the Quarantine Boundary Area

If:	And:	And:	Then:
Valid proof of ownership is **not** presented	Investigation fails to establish proof	→	Issue Hold Notice
Proof of ownership is present	Origin of fruit was **within** quarantine boundary area	Fruit was treated and safeguarded during transport	Release
	Origin of fruit was **outside** of quarantine area	→	

1. If proof of origin is not available from the carrier, make a **reasonable** effort to obtain proof by means of investigation, before seizing the load or writing a violation notice.
2. Example of a Hold Notice in the Appendix section, page 5D.1

Table 1.4: Decision to Take Regarding a Hold Notice Placed Inside a Quarantine Zone

If:	And:	And:	Then:
Mobile vendor, swap meet, etc.	**No** proof of origin	→	Seize and destroy
Market, packing house or distributor	→	1st violation Multiple violations	Issue warning and seize Issue written violation and seize

1. Number of previous violations needed to determine issuance of warning or violation order will be determined by project policy.
2. Following fruit seizure, transport to project headquarters, document in log, obtain photographic evidence, safeguard for destruction.

Table 1.5 Decision to Issue Hold Notice for Fruits or Vegetables Located Outside a Quarantine Boundary Area.

If:	And:	And:	Then:
Proof of origin is presented	Fruit originates outside boundaries of quarantine	→	No action taken
No proof of origin is present	Fruit originates within quarantine boundaries	→	Seize, transport to project headquarters, and destroy

Decision Tables For Regulating Fruit From Packing Houses Located Within The Quarantine Area

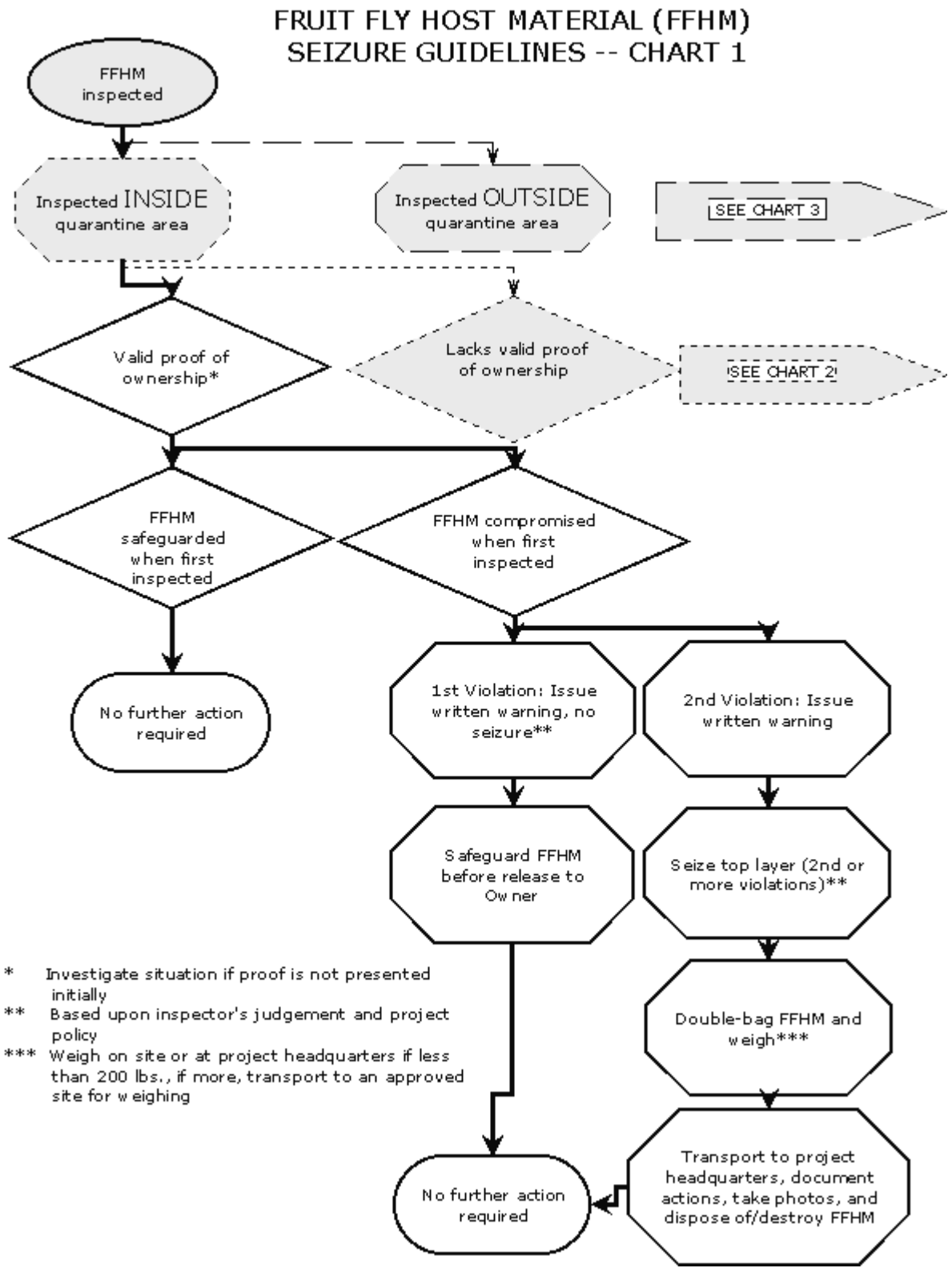
Table 2.1 Arrivals of Fruit at the Packing House

If the fruit originated from:	And:	And:	Then:	Authority:
Inside the quarantine area	There is a valid limited permit	Safeguard during transit occurred	Allow entry into the packing house	Cooperative fed/state eradication project
→	→	No safeguard during transit	Seize top layer and allow entry	
→	No valid limited permit	Investigation fails to locate a permit	Refuse to admit into packing house	
Outside the quarantine area	Transit safeguard	→	Allow entry into packing house	
→	No safeguard during transit	→	Seize top layer and allow entry	

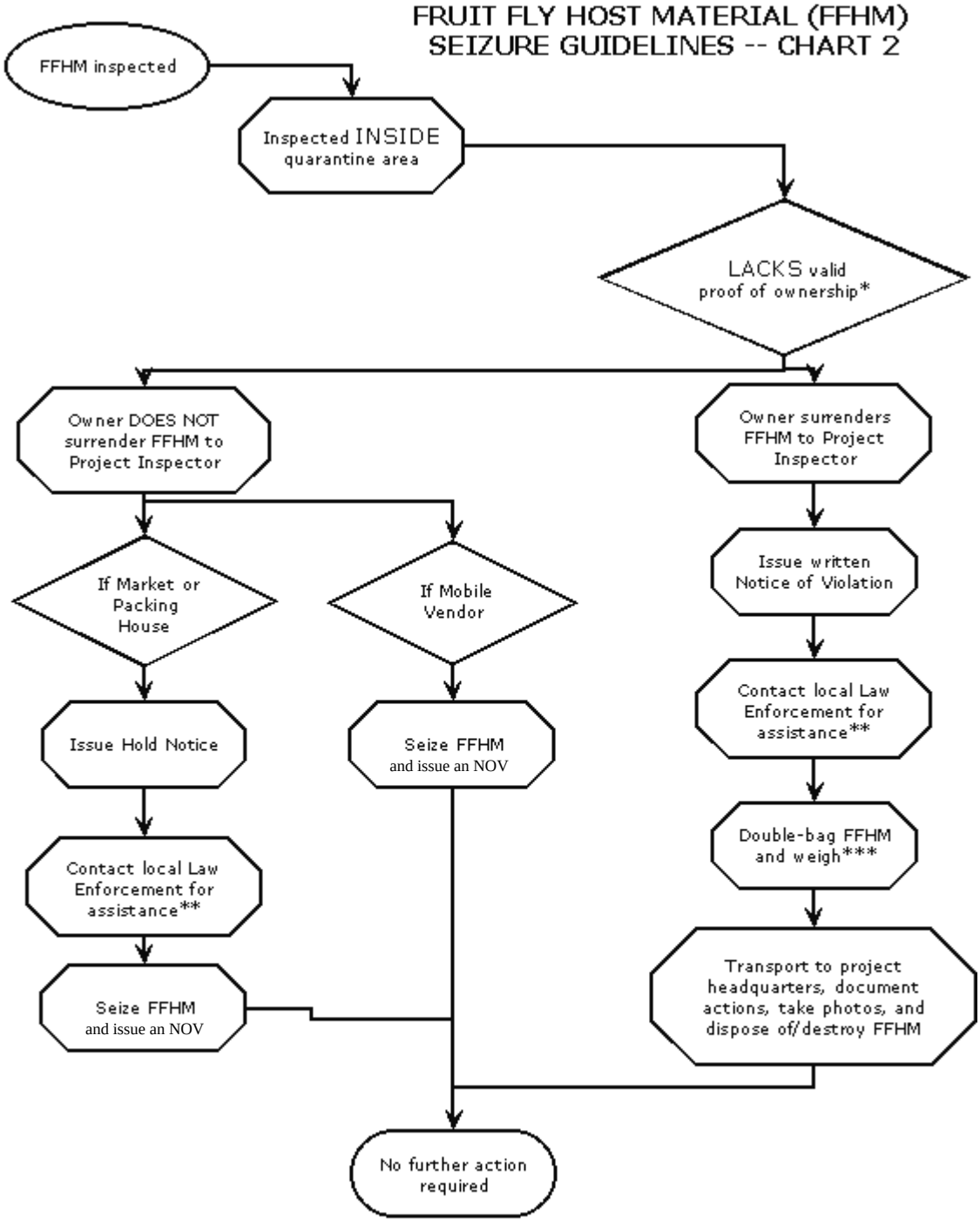
Table 2.2 Shipments of Fruit from the Packing House

If packing house requests shipment outside the quarantine area:	**And:**	**Then:**	**Authority:**
⟶	Fruit was segregated during storage in the packing house	Use some type of county identification stamp (e.g., "diamond stamp") and ship	Cooperative fed/state eradication project
⟶	Fruit was commingled	Place hold on fruit and do not allow shipment	

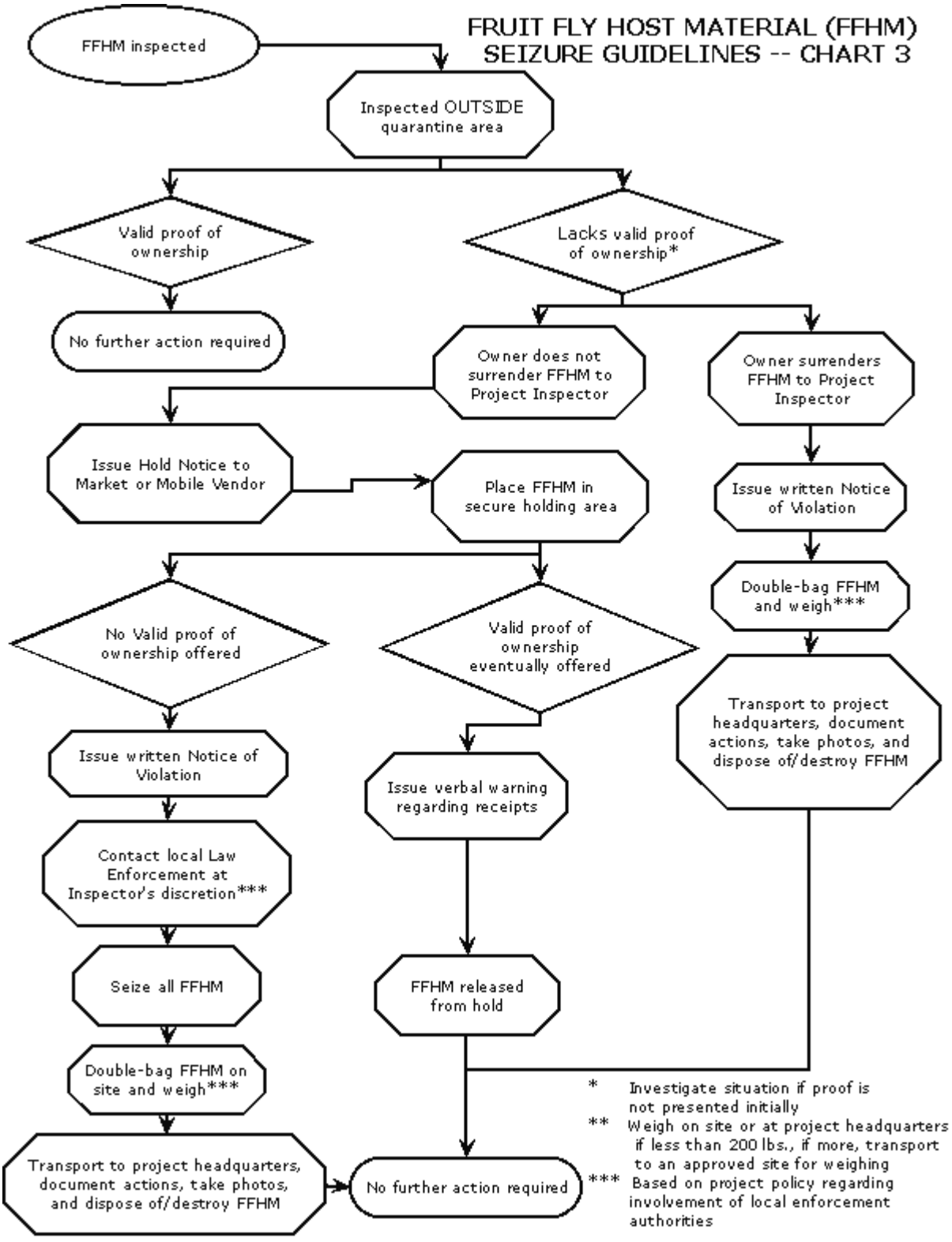
1. A limited permit allows transit of fruit fly host materials within a quarantine area.
2. Safeguarding consists of protecting host fruit against fruit fly invasion by means of covering the load with screens, box covers, tarpaulin, the use of an enclosed vehicle, etc.
3. Segregation means separation by approved screened enclosure from other commodities.


FRUIT FLY HOST MATERIAL (FFHM)
SEIZURE GUIDELINES -- CHART 1
FFHM inspected
Inspected INSIDE quarantine area
Inspected OUTSIDE quarantine area
SEE CHART 3
Valid proof of ownership*
Lacks valid proof of ownership
SEE CHART 2
FFHM safeguarded when first inspected
FFHM compromised when first inspected
No further action required
1st Violation: Issue written warning, no seizure**
2nd Violation: Issue written warning
Safeguard FFHM before release to Owner
Seize top layer (2nd or more violations)**
Double-bag FFHM and weigh***
Transport to project headquarters, document actions, take photos, and dispose of/destroy FFHM
No further action required
* Investigate situation if proof is not presented initially
** Based upon inspector's judgement and project policy
*** Weigh on site or at project headquarters if less than 200 lbs., if more, transport to an approved site for weighing

FRUIT FLY HOST MATERIAL (FFHM) SEIZURE GUIDELINES -- CHART 2



* Investigate situation if proof is not presented initially
** Based upon inspector's judgement and project policy
*** Weigh on site or at project headquarters if less than 200 lbs., if more, transport to an approved site for weighing


FRUIT FLY HOST MATERIAL (FFHM)
SEIZURE GUIDELINES -- CHART 3
FFHM inspected
Inspected OUTSIDE quarantine area
Valid proof of ownership
Lacks valid proof of ownership*
No further action required
Owner does not surrender FFHM to Project Inspector
Owner surrenders FFHM to Project Inspector
Issue Hold Notice to Market or Mobile Vendor
Place FFHM in secure holding area
Issue written Notice of Violation
Double-bag FFHM and weigh***
No Valid proof of ownership offered
Valid proof of ownership eventually offered
Transport to project headquarters, document actions, take photos, and dispose of/destroy FFHM
Issue written Notice of Violation
Issue verbal warning regarding receipts
Contact local Law Enforcement at Inspector's discretion***
Seize all FFHM
FFHM released from hold
Double-bag FFHM on site and weigh***
Transport to project headquarters, document actions, take photos, and dispose of/destroy FFHM
No further action required
* Investigate situation if proof is not presented initially
** Weigh on site or at project headquarters if less than 200 lbs., if more, transport to an approved site for weighing
*** Based on project policy regarding involvement of local enforcement authorities

Project Completion

Activities Checklist:

As quarantine activities approach conclusion –

- Staff size, and the need for continuing compliance oversight and quarantine enforcement, may alter workloads due to:
    - Changes in the number of treatments
        - Which can increase or decrease depending on harvest schedules which are updated once or twice a month depending on conditions
        - One staff person can handle up to 20 treatments per day, depending on the size of the treated properties (usually only under the auspices of a grove management company that handles numerous properties and is familiar with crop types and acreage)
- Reduction, consolidation or reconfiguration of zones may happen due to workload changes or staffing reductions. This can be a result of decreasing or completed harvests, packing house and/or fruit seller activities
- Packing Houses – oversight must continue
    - Although there may be changes in the number of limited permits issued
    - Quarantine enforcement issues continue up to the end of the project
    - Can shift staff around from treatments to packing house compliance checks or the reverse – packing house crew to treatment monitoring (flexibility is essential here)
- Skeleton project administrative staff must be available to handle remaining:
    - Treatment scheduling
    - Inventory of supplies and equipments
    - Timesheets, paychecks, and personnel tasks

When quarantine regulatory activities conclude –

- Prepare an announcement of the conclusion of the quarantine regulations and mail, issue, or distribute to all affected stakeholders: provide a general regulatory end date based on the calculated F3 date; and mention weather irregularities that could modify the end date
- If the geographic scope of the project was very large or there was much publicity surrounding the quarantine, arrange a news media conference to publicize end date information via local newspapers, radio and television stations
- Update the project's Web site with the date of the quarantine's conclusion and the ending of FFHM regulatory restrictions
- Make sure all road signage has been removed at the appropriate time
- Secure all office and field equipment for shipment and/or storage
- Decide who will remain on the project until the final day, and inform the other TDYers, and their homeports, of their travel date of return. Retention on the project should be based on performance, professionalism and need
- Assign specific responsibilities for the project's conclusion to the remaining staff, such as forwarding personnel and computerized project reports and information to appropriate federal or state agencies

Project property tasks –

- Departing personnel are relieved of accountable property on loan (based on inventory lists drafted and used for this determination)
- All incidents of missing or damaged property are reported to supervisor on site and investigated
- An inventory is made of all property and

equipment

- Property is packed in boxes and the contents labeled, inventory lists are drafted earlier
- Arrange transport of these boxes to a storage facility (this can be accomplished in several stages, depending on the need for equipment and supplies as the project reaches conclusion)
- At debriefing meeting scheduled after project completion, evaluate the usefulness and performance of property items and make recommendations for future projects
- Inform owners of property, buildings and vehicles which have been leased to the project, of the expected date(s) of return and the conclusion of tenancy or use
- If needed, schedule closure meetings with the public and related project collaborators and cooperators
- **As part of the debriefing (previously mentioned), do a close-out survey involving state, federal and county staff and all affected stakeholders, as a critical review of project operations, activities and procedures**
- **Report on findings and conclusions**
- **Prepare a final overall project report, including a history, with dates, of each main event (i.e., a detailed chronology)**

Section 5, Appendix A: Fruit Fly Host Material Lists

***NOTE: The following fruit fly host lists reflect common and typical hosts and are therefore not comprehensive.**

CARAMBOLA Fruit Fly (*Bactrocera carambolae*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Bilimbi	*Averrhoa bilimbi*	
Breadfruit	*Artocarpus altilis*	Arbol de Pan
Carambola	*Averrhoa carambola*	Carambola
Cashew	*Anacardium occidentale*	Anacardo
Chili Pepper	*Capsicum annuum*	Chile
Common Guava	*Psidium guajava*	Guava
Common Jujube	*Ziziphus jujube*	Yuyubi
Cotton	*Gossypium* spp.	Algodon
Grapefruit	*Citrus* x *paradisi*	Toronja, Pomelo
Jackfruit	*Artocarpus heterophyllus*	
Loofah	*Luffa aegyptiaca*	
Luna Nut	*Lepisanthes fruticosa*	
Malay Apple	*Syzygium malaccense*	
Mango	*Mangifera indica*	Mango
Papaya	*Carica papaya*	Lechosa
Potato Tree	*Solanum verbascifolium*	Arbol de Papa
Rambai	*Baccaurea motleyana*	
Rambutan	*Nephelium lappaceum*	Rambutan
Rose-Apple	*Syzygium jambos*	Pomarrosa
Sapodilla	*Manilkara zapote*	Sapodilla
Star Apple	*Chrysophyllum cainito*	Cainito
Sugar Plum	*Arenga pinnata*	Confite Frutado
Surinam Cherry	*Eugenia uniflora*	Cereza de Cayena
Sweet Lime	*Citrus limettioides*	Lima Dulce
Sweet Orange	*Citrus sinensis*	Naranja
Tangerine	*Citrus reticulata*	Mandarina, Anaranjado, Rojizo
Tomato	*Lycopersicon esculentum*	Tomate
Tropical Almond	*Terminalia catappa*	Almendra Tropical
Water Apple	*Syzygium samarangense*	Manzana de Aqua
Watery Rose-Apple	*Syzygium aqueum*	Pomarosa Jugosa
West Indian Cherry	*Malpighia punicifolia*	Cereza India
	Artocarpus elasticus	
	Eugenia aquea	
	Malpighia glabra	Huesito
	Solanum ferox	
	Wild species of: Clusiaceae, Meliaceae, Myrtaceae, Rhizophoraceae, Symplocaceae, Euphorbiaceae, Moraceae, Olacaceae, Rutaceae	
***NOTE: This host list reflects common and typical hosts and is not comprehensive.**		

CARIBBEAN Fruit Fly (*Anastrepha suspensa*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Akee	*Blighia sapida*	
Allspice	*Pimenta dioica*	
Apple	*Malus sylvestris*	Manzana
Avocado (except commercial fruit)	*Persea americana*	Aguacate
Barbados Cherry	*Malpighia glabra*	Cereza de Barbado
Bell Pepper (except commercial fruit)	*Capsicum frutescens*	Ají, Pimiento
Blackberry	*Rubus hybrid*	Cereza Negra
Box Orange	*Severinia buxifolia*	Naranja
Calabur	*Muntingia calabura*	
Calamondin	X *Citrofortunella mitis*	Mandarinita
Carambola	*Averrhoa carambola*	Carambola
Ceylon Gooseberry	*Dovyalis hebecarpa*	
Cherry of the Rio Grande	*Eugenia aggregata*	Cereza del Rio Grande
Cocoplum	*Chrysolbalanus icaco*	
Egg Fruit	*Pouteria campechiana*	
Fig	*Ficus carica*	Higo
Governor's Plum	*Flacourtia indica*	
Grapefruit	*Citrus paradisi*	Toronja
Grumichama	*Eugenia brasiliensis*	Cereza Espanola
Guava (all)	*Psidium spp*	Guayaba
Guiana Plum	*Drypetes lateriflora*	
Imbe	*Garcinia livingstonei*	
Jaboticaba	*Myrciaria cauliflora*	
Jack Orangequat	*Citrus nobilis* 'unshu' x *Fortunella sp.*	
Jambolan Plum	*Syzygium cumini*	
Japanese Pear	*Pyrus pyrifolia*	Pera Asiatica
Japanese Persimmon	*Diospyros khaki*	Persimo Japones
Java Apple	*Syzygium samarangense*	
Kei Apple	*Dovyalis caffra*	
Kieffer Pear	*Pyrus pyrifolia* x *Pyrus communis*	
Kiwi	*Actinidia chinensis*	Kiwi
Kumquat	*Fortunella crassifolia*	Naranja
Kumquat (oval)	*Fortunella margarita*	
Lime	*Citrus aurantiifolia*	Lima
Limeberry	*Triphasia trifolia*	
Limequat	X *Citrofortunella floridana*	
Longan, except commercial fruit	*Dimocarpus longan*	Longan
Loquat	*Eriobotrya japonica*	
Lychee, except commercial fruit	*Litchi chinensis*	Lichi
Mango	*Mangifera indica*	Mango
Miracle Fruit	*Synsepalum dulcificum*	Fruta Milagrosa

CARIBBEAN Fruit Fly (*Anastrepha suspensa*) Host List* continued		
English Name	**Scientific Name**	**Spanish Name**
Natal Plum	*Carissa grandiflora*	Cariza
Nectarine	*Prunus persica*	
Orange Jasmine	*Murraya paniculata*	
Otaheite Apple	*Spondias cytherea*	
Papaya	*Carica papaya*	Papaya
Peach	*Prunus persica*	Durazno
Pear	*Pyrus communis*	Pera
Pitomba	*Eugenia luschnathiana*	
Pomegranate	*Punica granatum*	Granada
Pond Apple	*Annona glabra*	
Rangpur Lime	*Citrus limonia*	
Rose Apple	*Syzygium jambos*	Pomarosa
Sapodilla	*Manilkara zapota*	
Sour Orange	*Citrus aurantium*	Naranja Agria
Sugar Apple	*Annona squamosa*	Manzana, Azucarada
Surinam Cherry	*Eugenia uniflora*	Cereza de Cayena
Sweet Lemon	*Citrus limetta*	Limon Dulce
Sweet Orange	*Citrus sinensis*	Naranja Dulce
Tangelo	*Citrus paradisi X Citrus reticulata*	Cidra, Pomelo
Tangerine	*Citrus reticulata Blanco*	Mandarina
Temple Orange	*Citrus sinensis X Citrus reticulata*	
Tomato, except commercial fruit	*Lycopersicon esculentum* (*L. lycopersicum*)	Tomate
Tropical Almond	*Terminalia catappa*	Almendra Tropical
Velvet Apple or Velvet Persimmon	*Diospyros blancoi*	
Wampi	*Clausena lansium*	
White Sapote	*Casimiroa edulis*	Sapote Blanco
Wild Balsam Apple	*Momordica charantia*	
Wild Cinnamon	*Canella winteriana*	Canella Silvestre
Wild Dilly	*Manilkara jaimiqui* ssp. *emarginata*	
	Annona hybrid	
	Atalantia citriodes	
	Eugenia coronata	
	Eugenia ligustrina	
	Ficus altissima	
	Garcinia xanthochymus	
	Manilkara roxburghiana	
	Myrcianthes fragrans	
	Myrciaria glomerata	
	Pseudanamomis umbellulifera	
	Rheedia aristata	
	Terminalia muelleri	
	Trevisia palmata	

***NOTE: This host list reflects common and typical hosts and is not comprehensive.**

GUAVA Fruit Fly (*Bactrocera correcta*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Almond, Tropical	*Terminalia catappa*	Almendra tropical
Apple, Common	*Malus sylvestris*	Manzana
Apple, Custard	*Annona reticulata*	Manzana
Apple, Golden	*Spondias cytherea*	Manzana
Apple, Malay	*Eugenia malaccenis*	Manzana
Apple, Velvet	*Diospyros discolor*	Manzana
Apricot	*Prunus armeniaca*	Albaricoque, Chabacano, Chabacin
Banana, Common	*Musa paradisiaca*	Platano
Breadfruit	*Artocarpus altilis*	Fruta de Pan
Calamondin	*Citrus mitis*	Mandarinita
Canistel	*Lucuma nervosa*	
Carambola, Country Gooseberry	*Averrhoa carambola*	Carambola
Cashew	*Anacardium occidentale*	Muegano
Cherimoya	*Annona cherimola*	Chirimoya
Cherry, Barbados	*Malpighia punicifolia*	Cereza de Barbados
Cherry, Catalina	*Prunus ilicifolia*	Cereza Catalina
Cherry, Jerusalem	*Solanum pseudocapsicum*	Cereza de Jerusalen
Cherry, Spanish	*Mimusops elengi*	Cereza Espanola
Cherry, Surinam	*Eugnenia uniflora*	Cereza de Surinam
Chili	*Capsicum frutescens longum*	Chile
Dragon Tree	*Dracaena draco*	
Fig	*Ficus carica*	Higo
Grape	*Vitis* spp.	Uva
Grapefruit	*Citrus paradisi*	Toronja
Guava, Common	*Psidium guajava*	Guayaba
Guava, Red Strawberry	*Psidium cattleianum littorale*	Guayaba-Fresa (Roja)
Guava, Yellow Strawberry	*Psidium cattleianum lucidum*	Guayaba-Fresa (Amarilla)
Imbu	*Spondias tuberosa*	
Kumquat, Round	*Fortunella japonica*	
Lime, Sour	*Citrus aurantiifolia*	Lima Agria
Limeberry, Chinese Box	*Murraya paniculata/exotica*	
Loquat	*Eriobotrya japonica*	Mispero Japones
Mango	*Mangifera indica*	Mango
Myrobalan	*Terminalia chebula*	
Nectarine	*Prunus persica* var. nucipersica	Nectarino, Pelon
Oleander, Yellow	*Thevetia peruviana*	Laurel Amarillo
Orange, Chinese	*Citrus japonica hazara*	Naranja Japonesa
Orange, King	*Citrus nobilis*	Naranja Rey
Orange, Mandarin	*Citrus reticulata*	Mandarina

GUAVA Fruit Fly (*Bactrocera correcta*) Host List* continued		
English Name	**Scientific Name**	**Spanish Name**
Orange, Sweet	*Citrus sinensis*	Naranja Dulce
Palm, Syrup	*Jubaea spectabilis*	
Papaya	*Carica papaya*	Papaya
Peach	*Prunus persica*	Durazno
Pear	*Pyrus communis*	Pera
Persimmon, Japanese	*Diospyros kaki*	Persimo
Persimmon, Mabolo	*Diospyros discolor*	Persimo
Plum, American	*Prunus americana*	Ciruela Silvestre
Plum, Damson	*Chrysophyllum oliviforme*	Ciruela
Plum, Malabar	*Eugenia jambos*	Ciruela
Plum, Natal	*Carissa grandiflora*	Cariza
Santol	*Sandoricum koetjape*	
Sapodilla	*Manilkara zapota*	
Sapote, White	*Casimiroa edulis*	Sapote Blanco
Soursop	*Annona muricata*	
Star-Apple	*Chrysophyllum cainito*	
Unshu Orange	*Citrus unshu*	
Ylang-Ylang	*Cananga odorata*	
***NOTE: This host list reflects common and typical hosts and is not comprehensive.**		

MEDITERRANEAN Fruit Fly (*Ceratitis capitata*) Host List*

English Name	Scientific Name	Spanish Name
Almond with husk	*Prunus amygdalus, P. dulcis*	Almendra con Cascara
Apple	*Malus sylvestris*	Manzana
Apricot	*Prunus armeniaca*	Albaricoque / Chabacin / Chavacances / Damasco
Avocado	*Persea americana*	Aguacate
Black Myrobalan	*Terminalia cherbula*	Almendra Tropical
Calamondin Orange	*Citrus reticulata X Fortunella*	Naranja
Cherry, Sour	*Prunus cerasus, P. avium*	Cereza Agriaia
Cherry, Sweet	*Prunus avium, P. cerasus*	Cereza Dulce
Citron	*Citrus medica*	Cidra Citron
Date Palm	*Phoenix dactylifera*	Datil, Palma Datilera
Eggplant, other than commercially produced)	*Solanum melongena*	Berenjena
Fig	*Ficus carica*	Higo
Grape	*Vitis spp.*	Uva
Grapefruit	*Citrus paradisi*	Toronja/Lorolo/Pomelo
Guava	*Psidium guajava* (common, pomiferum, and pyriferum)	Guava, Guayaba
Guava, Pineapple	*Feijoa sellowiana*	Guayaba-Pina
Guava, Strawberry	*Psidium cattleianum*	Guayaba-fresa
Hawthorn, Mexican	*Crataegus pubescens*	Tejocote
Kiwi	*Actinidia chinensis*	Kiwi
Kumquat	*Fortunella japonica*	Naranja Japones/Kinotos
Lemon (except smooth-skinned lemons harvested for packing for commercial packing houses)	*Citrus limon*	Limon, excepto cultivos comerciales
Lemon, Meyer	*Citrus limon X C. reticulata*	Limon
Lemon, Rough	*Citrus jambhiri*	Limon
Lime, Sweet	*Citrus aurantiifolia*	Lima Dulce
Loquat	*Eriobotrya japonica*	Nispero Japones
Mandarin Orange, Tangerine	*Citrus reticulata*	Mandarina, Tangerina
Mango	*Mangifera indica*	Mango
Mock Orange	*Murraya exotica*	Naranjilla
Mountain Apple	*Syzygium malaccense (=Eugenia malaccensis)*	Pomarosa, Manzana, Pera de Agua
Natal Plum	*Carissa macrocarpa (=Carissa grandifolia)*	Cariza
Nectarine	*Prunus persica* var. Nectarina	Nectarino, Pelon
Olive	*Olea europaea*	Olivo, Aceitunas
Orange, Chinese	*Fortunella japonica*	Naranja China
Orange, King	*Citrus reticulata X C. sinensis*	Naranja

MEDITERRANEAN Fruit Fly (*Ceratitis capitata*) Host List* continued…		
English Name	**Scientific Name**	**Spanish Name**
Orange, Sour	*Citrus aurantium*	Naranja Agria
Orange, Sweet	*Citrus sinensis*	Naranja Dulce
Orange, Unshu	*Citrus reticulata* var. Unshu	Naranja Unshu
Papaya	*Carica papaya*	Papaya
Peach	*Prunus persica*	Durazno
Pear	*Pyrus communis*	Pera
Peppers	*Capsicum fructescens, C. annum*	Pimentera, Chile, Aji, Pimiento
Persimmon, Japanese	*Diospyros khaki*	Persimo
Plum, Japanese	*Prunus salicina*	Ciruela Japonesa
Plum, Prune	*Prunus domestica*	Ciruela Pasa
Plum, Wild	*Prunus americana*	Ciruela Silvestre
Pomegranate	*Punica granatum*	Granada
Prickly Pear Cactus	*Opuntia* spp.	Nopal Tunero, Tunas
Pummelo, Shaddock	*Citrus grandis*	Pomelo
Quince	*Cydonia oblonga*	Mannela, Membrillo
Rose Apple	*Syzygium jambos (=Eugenia jambos)*	Pomarosa
Spanish Cherry, Brazilian Plum	*Eugenia brasiliensis (=E. dombeyi)*	Grumichama
Surinam Cherry	*Eugenia uniflora*	Cereza de Cayena
Tomato (pink and red ripe)	*Lycopersicon esculentum*	Tomate
Walnut, Butternut (with or in husk)	*Juglans* spp.	Nogal, Nuez
White Sapote	*Casimiroa edulis*	Zapote Blanco
Yellow Oleander, Bestill	*Thevetia peruviana*	Laurel Amarillo
***NOTE: This host list reflects common and typical hosts and is not comprehensive.**		

MELON Fruit Fly (*Bactrocera cucurbitae*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Fruit from Plants of the Following Species:		
Apple	*Malus sylvestris*	Manzana
Apple, Custard	*Annona reticulata*	
Avocado	*Persea americana*	Aguacate
Bean, Hyacinth	*Dolichos lablab*	
Bean, Lima	*Phaseolus lunatus (Phaseolus limensis)*	
Bean , Mung	*Phaseolus radiatus*	
Cantaloupe	*Cucumis melo, Cucumis melo* var. *cantalupensis*	Melon
Cauliflower	*Brassica oleracea* var.*botrytis*	Coliflor
Chayote	*Sechium edule*	Chayote
Colocynth	*Citrullus colocynthis*	
Cowpea	*Vigna unguiculata*	
Cucumber	*Cucumis sativus*	Pepino
Cucumber, Bur	*Sicyos* sp.	Pepinillo
Cucurbit	*Cucumis pubescens, Cucumis trigonis*	Cucurbita
Date Palm	*Phoenix dactylifera*	Datil, Palma Datilera
Eggplant	*Solanum melongena*	Berenjena
Fig, Common	*Ficus carica*	Higo
Gourds	*Coccinia* spp., *Cresentia* spp., *Lagenaria* spp., *Luffa* spp., *Momordica* spp., *Trichosanthes* spp.	
Grape	*Vitis trifolia*	Uva
Guava	*Psidium guajava*	Guayaba
Guava, Cattley	*Psidium cattleianum*	Guayaba
Mango	*Mangifera indica*	Mango
Melon	*Citrullus* spp.	Melon
Melon, Chinese	*Benincasa hispida*	Melon Chino
Melon, Oriental Pickling	*Cucumis melo* var. *conomon*	
Mustard, Leaf	*Brassica juncea*	
Orange, King	*Citrus nobilis*	Naranja Rey
Orange, Mandarin	*Citrus reticulata*	Mandarina
Orange, Sweet	*Citrus sinensis*	Naranja Dulce
Papaya, Common	*Carica papaya*	Papaya
Passion Fruit	*Passiflora edulis*	Pasiflora
Peach	*Prunus persica*	Durazno
Pear	*Pyrus communis*	Pera
Pepper	*Capsicum annum*	Chile, Ají
Pepper, Chili	*Capsicum annum*	

MELON Fruit Fly (*Bactrocera cucurbitae*) Host List* continued		
English Name	**Scientific Name**	**Spanish Name**
Pepper, Tabasco	*Capsicum frutescens*	Chile Habanero
Pumpkin	*Cucurbita pepo*	Calabaza
Pumpkin, Canada	*Cucurbita pepo*	Calabaza de Canada
Scarlet Wisteria Tree	*Sesbania grandiflora*	
Soursop	*Annona muricata*	
Squash	*Cucurbita maxima*	Calabacita
Tomato	*Lycopersicon esculentum*	Tomate
Tomato, Tree	Cyphomandra betaceae	Arbol de Tomate
Watermelon	*Citrullus lanatus* (*=Citrullus vulgaris*)	Sandia
Plants of the following species:Plantas de las siguientes especies		
Cantaloupe	*Cucumus melo*	Melon
Chayote	*Sechium edule*	Chayote
Colocynth	*Citrullus colocynthis*	
Cucumber	*Cucumis sativus*	Pepino
Cucumber, Bur	*Sicyos* spp.	Pepinillo
Cucurbit, Wild	*Cucumis trigoni*	
Gherkin, West India	*Cucumis angaria*	
Gourd, Angled Luffa	*Luffa acutangula*	
Gourd, Balsam-Apple	*Momordica balsaminia*	
Gourd, Balsam-Pear	*Momordica charantia*	
Gourd, Ivy	*Coccinia grandis*	
Gourd, Kakari	*Momordica cochinchiensis*	
Gourd, Pointed	*Trichosanthes dioica*	
Gourd, Serpent Cucumber	*Trichosanthes anguina*	
Gourd, Snake	*Trichosanthes cucumeroides*	
Gourd, Sponge	*Luffa aegyptiaca*	
Gourd, White Flowered	*Lagenaria siceraria*	
Melon	*Cucumis melo*	Melon
Melon, Chinese	*Benincasa hispida*	Melon chino
Melon, Long	*Cucumus utillissimus*	Melon
Pumpkin	*Cucurbita pepo*	Calabaza
Squash	*Cucurbita maxima*	Calabacita
Watermelon	*Citrullus lanatus* (*=Citrullus vulgaris*)	Sandia
***NOTE: This host list reflects common and typical hosts and is not comprehensive.**		

MEXICAN Fruit Fly (*Anastrepha ludens*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Apple	*Malus sylvestris*	Manzana
Apricot	*Prunus armeniaca*	Albaricoque/Chabacin/Chavacances/ Damasco
Avocado	*Persea americana*	Aguacate
Calamondin Orange	*Citrus reticulata X Fortunella*	Naranja
Cherimoya	*Annona cherimola*	Chirimoya, Anon
Citrus Citron	*Citrus medica*	Cidra Citron
Custard Apple	*Annona reticulata*	Anona
Grapefruit	*Citrus paradisi*	Toronja/Lorolo/Pomelo
Guava	*Psidium guajava* (common, pomiferum, and pyriferum)	Guava, Guayaba
Japanese Plum	*Prunus salicina*	Ciruela
Lemon, Sour, except smooth-skinned commercial cultivars for packing	*Citrus limon*	Limon, excepto cultivos comerciales
Lime, except sour limes	*Citrus aurantiifolia*	Lima Dulce
Mamey, Mammee Apple	*Mammea americana*	Zapote Mamey, Mamey Amarillo, Mata Serrano
Mandarin Orange, Tangerine	*Citrus reticulata*	Mandarina, Tangerina
Mango	*Mangifera indica*	Mango
Mombin, Ciruela	*Spondias* spp.	Ambarella, Jobo, Ajuela Ciruela, Jocote, Caimito
Nectarine	*Prunus persica* var. Nectarina	Nectarino, Pelon
Peach	*Prunus persica*	Durazno
Pear	*Pyrus communis*	Pera
Plum		Ciruela
Pomegranate	*Punica granatum*	Granada
Prune Plum	*Prunus domestica*	Ciruela, Ciruela pasa
Pummelo, Shaddock	*Citrus grandis*	Pomelo
Quince	*Cydonia oblonga*	Mannela, Membrillo
Rose Apple	*Syzygium jambos (=Eugenia jambos)*	Pomarosa
Sour Orange	*Citrus aurantium*	Naranja Agria
Sapote	*Pouteria* spp.	Sapota, Zapote, Mamey Colorado, Mamey Rojo
Sapota, Sapodilla	*Manilkara zapota*	Chicle, Chicozapote, Niśpero, Zapote
Sargentia, Yellow Chapote	*Sargentia greggii*	Zapote Amarillo
Spanish Plum, Purple	*Spondias* spp.	Ciruela Española
Sweet Orange	*Citrus sinensis*	Naranja Dulce
***NOTE: This host list reflects common and typical hosts and is not comprehensive.**		

ORIENTAL Fruit Fly (*Bactrocera dorsalis*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Akia	*Wilstromeia phyllyraefolia*	
Alexander Laurel	*Calophyllum inophyllum*	Laurel
Apple	*Malus sylvestris*	Manzana
Apricot	*Prunus armeniaca*	Albaricoque/Chabacin/Chavacances
Avocado	*Persea americana*	Aguacate
Banana	*Musa paradisiaca* var. Sapientum, *Musa* X *paradisiaca*	Plátano
Banana, Dwarf	*Musa nana*	Plátano
Barbados Cherry	*Malpighia glabra*	Acerola
Bell Pepper	*Capsicum annum*	Ají, Pimiento
Brazil Cherry	*Eugenia dombeyi*	Grumichama
Breadfruit	*Artocarpus altilis*	Fruta de Pan
Cactus	*Cereus (=Hylocereus) coerulescens*	Pitaya
Damson-Plum	*Chrysophyllum oliviforme*	Caimitillo
Cashew	*Anacardium occidentale*	Marañon
Cherimoya	*Annona cherimola*	Chirimoya, Pox
Cherry, Holly-Leaf or Cherry Laurel	*Prunus ilicifolia*	Cereza Laurel
Cherry, Portugal Laurel	*Prunus lusitanica*	
Chili	*Capsicum annum*	Pimentera, Chile, Ají, Pimiento
Coffee, Arabian	*Coffea arabica*	Café
Country Gooseberry	*Averrhoa carambola*	Carambole, Carambolera
Cucumber	*Cucumis sativas*	Pepino
Custard Apple	*Annona reticulata*	Anona
Date Palm	*Phoenix dactylifera*	Palma Datilera/Datil
Dragon Tree	*Dracaena draco*	
Eggfruit Tree, Yellow Sapote	*Pouteria campechiana*	Canistel, Zapote Amarillo
Elengi Tree, Spanish Cherry	*Mimusops elengi*	Cereza Española
Fig	*Ficus carica*	Higo
Gourka	*Garcinia celebica*	
Granadilla, Sweet	*Passiflora ligularis*	Grenadilla, Parcha, Fruta de la Casión
Grape	*Vitis* spp.	Uva
Grapefruit	*Citrus paradisi*	Toronja/Lorolo/Pomelo
Guava	*Psidium guajava, P. littorale, P. cattleianum*	Guava, Guayaba
Imbu	*Spondias tuberosa*	Imbu, Umbu
Jackfruit	*Artocarpus heterophyllus*	Jak, Jaca
Jerusalem Cherry	*Solanum pseudocapsicum*	Cereza de Jerusalen
Kitembilla, Ceylon Gooseberry	*Dovyalis hebecarpa*	Aberia

ORIENTAL Fruit Fly (*Bactrocera dorsalis*)Host List* continued…		
English Name	**Scientific Name**	**Spanish Name**
Kumquat	*Fortunella japonica*	Naranja Japones/Kinotos
Laurel	*Calophyllum inophyllum*	Laurel
Lemon	*Citrus limon*	Limon
Lime, Key or Mexican	*Citrus aurantifolia*	Lima
Lime, Persian	*Citrus latifolia*	Lima
Lime, Sweet	*Citrus limetioides*	Lima Dulce
Longan	*Euphoria longan*	Mamoncillo Chino
Loquat	*Eriobotrya japonica*	Nispero Japones
Litchi	*Lychee chinensis*	Lechia, Lichi
Malay Apple	*Eugenia malaccensis*	Pomarosa, Manzana, Marañon Japonés
Mammee Apple	*Mammea americana*	Zapote Mamey, Mamey Amarillo
Mandarin Orange	*Citrus reticulata*	Mandarina, Tangerina
Mango	*Mangifera indica*	Mango
Mangosteen	*Garcinia mangostana*	Mangostin
Mock Orange	*Murraya exotica*	Naranja
Mulberry	*Morus nigra*	
Myrtle, Downy Rose	*Rhodomyrtus tomentosa*	
Natal Plum, Amantungula	*Carissa grandiflora (=C. macrocarpa)*	Cariza
Nectarine	*Prunus persica* var. Nectarina	Nectarino, Pelon
Oleander, Yellow	*Thevetia peruviana*	Laurel Amarillo
Orange, Calamondin	*Citrus reticulata X fortunella*	Naranja
Orange, Chinese	*Fortunella japonica*	Naranja
Orange, King	*Citrus reticulata X C. sinensis*	Naranja
Orange, Sweet	*Citrus sinensis*	Naranja Dulce
Orange, Sour	*Citrus aurantium*	Naranja Agria
Orange, Unshu	*Citrus reticulata* var. Unshu	Naranja
Oriental Bush Red Pepper	*Capsicum frutescens abbreviatum*	Chile, Pimiento
Otaheite Apple, Polynesian plum, Golden Apple	*Spondias dulcis*	Ambarella, Jobo
Palm, syrup	*Jubaea spectabilis*	Fruta Dulce del Árbol de la Palma
Papaya	*Carica papaya*	Papaya
Passionflower Fruit, Yellow Lilikoi	*Passiflora edulis*	Granadilla, Parcha
Passionflower, Softleaf	*Passiflora mollissima*	Granadilla, Parcha
Peach	*Prunus persica*	Durazno
Pear	*Pyrus communis*	Pera
Pepino	*Solanun muricatum*	Pepino
Pepper, Sweet	*Capsicum frutescens* var. grossum	Pimentera, Chile, Ají, Pimiento
Persimmon, Japanese	*Diospyros khaki*	Persimon

ORIENTAL Fruit Fly (*Bactrocera dorsalis*) Host List* continued…		
English Name	**Scientific Name**	**Spanish Name**
Pineapple Guava	*Feijoa sellowiana*	Guayabo del Pais
American Wild Plum	*Prunus americana*	Ciruela
Pomegranate	*Punica granatum*	Granada
Prickly Pear Cactus	*Opuntia megacantha, O. ficus indica*	Nopal Tunero, Tunas
Prune Plum	*Prunus domestica*	Ciruela, Ciruela Pasa
Pummelo	*Citrus grandis*	Pomelo
Quince	*Cydonia oblonga*	Mannela, Membrillo
Rose Apple	*Eugenia jambos*	Pomarosa
Sandalwood	*Santalum panaiculatum*	
Sandalwood, White	*Santalum album*	
Santol	*Sandoricum koetjape*	Santor, Katul
Sapodilla	*Manilkara sp.*	Chico
Sapodilla, Chiku	*Manilkara zapota*	Chicle, Chico, Zapote Chico
Sapote, White	*Casimiroa edulis*	Zapote Blanco
Seagrape	*Coccoloba uvifera*	Uva Marina
Soursop	*Annona muricata*	Guanabana, Zapote de Viejas
Star Apple	*Chrysophyllum cainito*	Caimito, Estrella
Surinam Cherry,Brazilian Cherry, Pitanga	*Eugenia uniflora*	Cereza de Cayena
Tomato	*Lycopersicon esculentum*	Tomate
Tropical Almond	*Terminalia catappa, T. chebula*	Alemendra Tropical
Velvet Apple	*Diospyros discolor (=D. blancoi)*	Mabolo, Camagon
Walnut	*Juglans hindsii*	Nogal, Nuez
Walnut, English	*Juglans regia*	Nogal, Nuez
Wampee or Wampi	*Clausena lansium*	Wampi, Uampi,
Barbados or West Indian Cherry	*Malpighia punicifolia*	Acerola, Cereza, Cereza Colorada
Ylang-Ylang	*Cananga odorata*	
***NOTE: This host list reflects common and typical hosts and is not comprehensive.**		

PEACH Fruit Fly (*Bactrocera zonata*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Almond, Tropical	*Terminalia catappa*	Almendra Tropical
Apple	*Malus domestica*	Manzana
Apple, Paradise	*Malus pumila*	Manzana del Paraiso
Apple, Sugar	*Annona squamosa*	Manzana Azucarada
Date Palm	*Phoenix dactylifera*	Datil, Palma Datilera
Fig, Common	*Ficus carica*	Higo
Gourd, Bitter	*Momordica charantia*	
Gourd, White-flowered	*Lagenaria siceraria*	
Guava	*Psidium guajava* (common, pomiferum, and pyriferum)	Guava, Guayaba
Indian Bael	*Aegle marmelos*	
Jujube, Common	*Ziziphus jujube*	Yuyubi
Mango	*Mangifera indica*	Mango
Melon	*Cucumis melo*	Melon
Okra	*Abelmoschus esculentus*	Okra
Orange, Sweet	*Citrus sinensis*	Naranja Dulce
Papaya	*Carica papaya*	Papaya
Peach	*Prunus persica*	Durazno
Phalsa	*Grewia asiatica*	
Pomegranate	*Punica granatum*	Granada
Quince	*Cydonia oblonga*	Mannela, Membrillo
Sapota, Sapodilla	*Manilkara zapota*	Chicle, Chicozapote, Niśpero, Zapote
Watermelon	*Citrullus lanatus*	Sanndia
Wild Hosts: Reported on Euphorbiaceae, Lecythidaceae and Rhamnaceae		
***NOTE: This host list reflects common and typical hosts and is not comprehensive.**		

WEST INDIAN Fruit Fly (*Anastrepha obliqua*) Host List*		
English Name	**Scientific Name**	**Spanish Name**
Barbados Cherry	*Malpighia glabra*	Cereza de Barbados
Carambola	*Averrhoa carambola*	Carambola
Granadilla, Giant	*Passiflora quadrangularis*	Granadilla Gigante
Grapefruit	*Citrus paradisi*	Toronja
Guava	*Psidium guajava*	Guayaba
Guava, Strawberry	*Psidium littorale*	Guayaba-Fresa
Hog-Plum	*Spondias mombin*	
Japanese Plum	*Prunus salicina*	Ciruela Japonesa
Jew Plum	*Spondias cytherea*	
Ketembilla	*Dovyalis hebecarpa*	
Lime, Sweet	*Citrus aurantifolia*	Lima Dulce
Loquat	*Eriobotrya japonica*	Nispero
Malay-Apple	*Syzygium malaccense*	
Mango	*Mangifera indica*	Mango
Orange,Sour	*Citrus aurantium*	Naranja Agria
Orange,Sweet	*Citrus sinensis*	Naranja Dulce
Passion Fruit	*Passiflora edulis*	Pasiflora
Peach	*Prunus persica*	Durazno
Pear	*Pyrus communis*	Pera
Ramón	*Brosimum alicastrum*	
Red Mombin	*Spondias purpurea*	
Rose-Apple	*Syzygium jambos*	Pomarosa
Sapodilla	*Manilkara zapota*	
Sapote	*Diospyros* spp.	Sapote

***NOTE: This host list reflects common and typical hosts and is not comprehensive.**

Section 5: Appendix B - Compliance Agreement and Exhibits

Compliance Agreement No: _____

COOPERATIVE _____ FRUIT FLY PROJECT COMPLIANCE AGREEMENT

_____ COUNTY – CDFA – USDA

[Pursuant to California Food and Agricultural Code Sections 5701(a), 6321-6323, and California Code of Regulations Section 3_____]

CDFA/USDA Cooperative	**Fruit Fly Project**
_____	
_____ _____	**,CA** _____
_____ **County Agricultural Commissioners Office (___) ___-____**	
_____ **Fruit Fly Project (___) ___-____**	

Establishment Name: _____	
Manager Name: _____	
Mailing Address - Street: _____ City: _____ Zip:_____	
Phone:(___) ___ - ____ Fax:(___) ___ - ____	E-Mail: @
Thos. Bros:	Zone:
Cross Street:	GPS:
Work Vehicle License #:_____	Make/Model:_____

PARTIES:

California Department of Food and Agriculture, the United States Department of Agriculture (Animal and Plant Health Inspection Service), and the _____ County Agricultural Commissioner, cooperating as the Cooperative_____ Fruit Fly Project (subsequently referred to as "Cooperative Fruit Fly Project")

Project Officer: _____
Project Mailing Address - Street or P.O. Box:_____
City:_____ State: CA Zip Code: _____
Telephone: (____) ____ - ____ Facsimile: (____) ____ - _____
E-mail _____@ cdfa.ca.gov

Establishment/Business

Establishment Name: (subsequently referred to as "Establishment"): _____		
Contact Name:_____		Mailing Address: _____ _____
City: _____		Zip Code: _____
Phone:(___)___ - ____	Fax:(___)___ - ____	E-mail: _____@_____

BACKGROUND:

Exotic fruit flies present a real and ongoing threat to the agricultural industry and economy of the State of California. Movement of regulated commodities is a recognized channel for the spread of exotic fruit flies from established locations to new locations. The Cooperative Fruit Fly Project is a cooperative effort between public entities that are responsible for containing the movement of exotic fruit flies. Establishment is located within an identified exotic fruit fly quarantine area.

AGREEMENT:

A. The Cooperative Fruit Fly Project will permit your establishment to self-execute the exotic fruit fly quarantine requirements attached as Exhibit(s) _____, inclusive and incorporated into this agreement by reference as if fully set out.

B. In exchange for the Cooperative Fruit Fly Project's promise contained in sub-paragraph "A" above, Establishment agrees to:

1. Handle, process, and/or move regulated articles in accordance with the exotic fruit fly quarantine requirements;

2. Follow the Cooperative Fruit Fly Project's instructions, whether written or in the form of a verbal communication from the Project Officer, for the use of any and all exotic fruit fly permits and certificates;

3. Maintain and make such records, as the Cooperative Fruit Fly Project requires accessible for inspection upon reasonable notice by the Cooperative Fruit Fly Project's Project Officer. These records shall be maintained for a period of the later of two years or the resolution of any outstanding claims.

C. Agreement becomes effective on signing and shall remain in effect until canceled by either party on 30 days notice to the other at the address of either appearing above. However, the Cooperative Fruit Fly Project may accelerate the notice to immediate for cause, including but not limited to discovery of exotic fruit fly life stages in agricultural commodities or Establishment's abandonment of the procedures outlined in the attached Exhibit(s).

D. Establishment assumes liability, if any, arising from the manner in which Establishment applies treatments.

NOTICE: Any signatory or employee of any signatory who violates the terms of this Compliance Agreement may be subject to Civil Penalties pursuant to California Food and Agricultural Code Section 5705.

Signed in the County of _____, in the State of California on ____ / ____ / 200__	
Establishment, by: _____	Cooperative Fruit Fly Project, by: _____
Manager/Owner (print name) _____	Project Officer (print name) _____

CA Form 09/18/01

In Spanish:

Convenio de Conformidad No._____

CONVENIO DE CONFORMIDAD

PROYECTO COOPERATIVO DE LA MOSCA DE LA FRUTA

[Conforme Al Código de Alimentos y Agricultura de California Secciones 5701(a), 6321-6323, y al Codigo de Regulaciones de California Sección 3 _____]

Direccion del Proyecto:
USDA/CDFA Proyecto Cooperativo de la Mosca Exótica de la Fruta
_____
Direccion Fisica: _____
_____, CA _____

Oficina del Comisionado de Agricultura del Condado de _____
Telefono (_____) _____-_____
Proyecto Cooperativo de la Mosca de la Fruta Telefono ( ) _____-_____

Nombre del Dueño:_____
Nombre del Administrador:_____
Direccion Postal.-Calle:_____Ciudad:_____Zona Postal_____
Telefono: (___) ___-____ Fax: (___) ___-____ Correo Electronico: _____@_____

PARTES:
El Departamento de Alimentos y Agricultura de California, el Departamento de Agricultura de los Estados Unidos (Servicio de Inspección Sanitaria de Plantas y Animales) y el Comisionado de Agricultura del Condado de Los Angeles, cooperando como el Proyecto Cooperativo de La Mosca Exótica de la Fruta (designado posteriormente como el "Proyecto Cooperativo de la Mosca Exótica de la Fruta").

Oficial del Proyecto:_____
Dirección Postal del Proyecto-Calle o Apartado Postal:_____
Ciudad:_____ Estado:_____ Zona Postal:_____
Telefono: (___) ____-_____ Fax: (___) ____-_____ Correo Electronico: _____@_____

Negocio/Establecimiento

Nombre del Establecimiento:(designado posteriormente como "Establecimiento")

_____
Nombre de la Persona Contactada:_____
Dirección Fisica:_____Thos. Bros:_____Calle que cruza_____
Ciudad, Estado,Zona Postal:_____ Zona:_____ GPS:_____
Telefono: (___) ___-____ Fax: (___) ___-____ Correo Electronico:_____@_____

Antecedentes:

Las moscas exóticas de la fruta presentan una real y seria amenaza en curso a la industria agrícola y a la economia del Estado de California. El movimiento de productos regulados es una reconocida vía para la propagación de moscas exóticas de la fruta, de localidades establecidas a nuevas localidades. El Proyecto Cooperativo de la Mosca Exótica de la Fruta es un esfuerzo cooperativo entre las entidades públicas responsables de contener el movimiento de moscas exóticas de la fruta. Este establecimiento esta localizado dentro de una area identificada de la Cuarentena de la Mosca Exótica de la Fruta.

Convenio:

A. El Proyecto Cooperativo de la Mosca Exótica de la Fruta permitirá a su establecimiento la propia ejecución de los requerimientos de la Cuarentena de la Mosca Exótica de la Fruta, agregado como documento fehaciente_____ inclusivo e incorporado en este convenio por referencia como se da a conocer completamente.

B. En intercambio por la promesa del Proyecto Cooperativo de la Mosca Exótica, contenida en el sub-parrafo "A" de arriba, el Establecimiento conviene a:

1. Manejar, procesar y/o mover articulos regulados de acuerdo con los requerimientos de la Cuarentena de la Mosca Exótica de la Fruta.

2. Seguir las instrucciones del Proyecto Cooperativo de la Mosca Exótica de la Fruta ya sea en forma oral ó escrita por parte del oficial del proyecto, para el uso de cualquiera y todos los permisos y certificados de la mosca exótica de la fruta.

3. Mantener y hacer que los expedientes que requiere el Proyecto Cooperativo de la Mosca Exótica de la Fruta sean accesibles para inspección con previa notificación por parte de un oficial del Proyecto cooperativo de la Mosca Exótica de la Fruta. Estos expedients deberan mantenerse por un periodo de hasta 2 anos o la resolucion de cualquier demanda excepcional.

C. El convenio viene a ser efectivo al momento de firmarse y permanecerá en efecto hasta que sea cancelado por cualquiera de las partes, notificando en 30 dias al otro, en el direccionamiento de cualquiera que aparece arriba. Sin embargo el Proyecto Cooperativo de la Mosca Exótica de la Fruta puede acelerar la noticia inmediata por causa, incluyendo pero no limitado al hallazgo de estadiós de vida de la mosca exótica de la fruta en productos agricolas, ó al abandono por parte del Establecimiento de los procedimientos delineados en el agregado (s) documento fehaciente.

D. El Establecimiento asume la responsabilidad, si la hay, de la manera en la cual el Establecimiento aplica los tratamientos.

AVISO. Cualquier firmante o empleado de cualquier firmante que viole los términos de este Convenio de Conformidad puede ser sujeto a Penas Civiles conforme al Codigo de Alimentos y Agricultura de California sección 5705.

Firmado en el Condado de:_____En el Estado de California el dia_____2001.

Por el establecimiento: Por el Proyecto Cooperativo de la Mosca de la Fruta:

_____ _____

Dueño/Administrador (Nombre) Oficial del Proyecto (Nombre)

_____ _____

Exhibits

Exhibit A: Airlines

1. Safeguard all FFHM upon entry and exit of this establishment. All FFHM shall be secured in plastic bags or closed containers, and disposed of in covered dumpsters to be taken to an approved landfill (this includes culled, rejected and unused FFHM).
2. Purchase and use only commercially grown, fresh FFHM (See Host List) that originated outside the exotic fruit fly quarantine area, or processed FFHM.
3. Allow posters to be displayed on employee bulletin boards.
4. Allow periodic visits by a regulatory officer who will provide updates on Project regulations.

Exhibit B: Caterers

1. Safeguard all FFHM (See Host List) upon entry and exit of this establishment. All FFHM shall be secured in plastic bags or closed containers, and disposed of in covered dumpsters to be taken to an approved landfill (this includes culled, rejected and unused FFHM).
2. Shall transport FFHM in closed receptacles to the aircraft for the purpose of catering.
3. Purchase and use only commercially grown, fresh FFHM that originated outside the exotic fruit fly quarantine area, or processed FFHM.
4. Allow posters to be displayed on employee bulletin boards.
5. Allow periodic visits by a regulatory officer who will provide updates on Project regulations.

Exhibit C: Distributors

1. Only commercially grown host material (See Host List) for exotic fruit flies from sources outside the quarantine area, or treated fruit accompanied by Project-approved documentation, may be bought and sold.
2. Valid receipts, permits, and certificates as required by the project must be presented upon request to Project personnel.
3. All fruit sold, moved through, or stored in the quarantine are must be protected from exposure to fruit flies by approved Project means.
4. The process of loading and unloading must be completed within one hour or safeguarding methods approved by the Project must be initiated if the process exceeds this time frame.
5. All culls and other fruit and vegetable garbage will be tied and bagged in plastic and disposed of in a covered garbage container.
6. Project personnel will conduct periodic compliance inspections.
7. Informative material may be posted in public areas in the facility under this compliance agreement.

Exhibit D: Farmers' Markets

Growing Field Address:_____
Name of CFM:_____
Types of Crops Grown and Sold:_____
Other Farmers' Markets Attended:_____

1. All exotic fruit fly host material (See Host List) must be grown outside the quarantine area unless it has undergone a treatment program and is accompanied by proper certification.
2. All exotic fruit fly host material must be safeguarded in plastic bags, kept in screened boxes, or in any manner approved by the Project, prior to entering the quarantine area.
3. Accurate records must be kept of all fruit fly host material transported into the quarantine area, with copies to be filed with the CFM manager and available for review by Project personnel.
4. Once having entered the quarantine area, host materials that have been placed on display for sale, including material that has been safeguarded, must not be removed from the quarantine area. Host material is exempt that has been confined to the interior of the vehicle, in intact containers, under approved safeguard.

Exhibit E1: Gardens: Community

1. Informative materials including maps of the quarantine boundaries will be posted in order to warn gardeners of the hazards of spreading the exotic fruit fly infestation under eradication.
2. Use of all fruits and vegetables will be limited to personal consumption. No sales or gift-based distribution of host materials (See Host List) will be allowed.
3. All culls, and waste derived from host materials will be placed in heavy plastic bags before disposal in a pre-approved manner.
4. No Project-regulated materials may be taken from the quarantine area (See Map of Quarantine Area).
5. Project officers will be allowed access to the site under compliance in order to conduct periodic visits.

Exhibit E2: Gardens: Public/Private Gardens

1. No host fruit (See Host List) grown on the arboretum/garden grounds may be removed without first undergoing a Project-approved treatment or processing.
2. No fruit fly host material (FFHM) nursery stock with fruit, or which has previously borne fruit, may be removed from the grounds without first undergoing preventative soil drenching with an approved pesticide. All fruit must be stripped prior to treatment.
3. All regulatory treatments shall be conducted under the supervision of a Project officer.
4. All employees shall be notified that no FFHM may be removed from the arboretum/garden grounds.
5. Allow the posting of posters and inform employees of the risks resulting the further spread of the exotic fruit fly infestation.

6. At next printing update handouts (such as "self-guided walking tour" pamphlets) with an exotic fruit fly precautionary statement regarding the prohibition against picking and removing FFHM from the grounds.
7. Strip all FFHM to a height of at least eight feet that is located in heavily trafficked public access areas in the vicinity of, but not limited to the following designated area(s):

   _____

8. Pick up all fallen FFHM and either place it in closed plastic bags before disposal or compost it at an arboretum/garden location and under conditions specified by Project staff.
9. Post the following designed areas with signs stating "Do Not Pick or Remove The Following Fruits – Exotic Fruit Fly Quarantine Area:"

   _____

10. Allow periodic inspections by Project staff.

Exhibit F: Gift Fruit Package Shippers

1. Purchase and transport only commercially grown FFHM (See Host List) produced outside the exotic fruit fly quarantine area, for use in "gift packages."
2. All FFHM contained in "gift packages" shall be properly safeguarded in sealed plastic bags and placed inside a closed container or box PRIOR to entering an exotic fruit fly quarantine area.
3. All culls of and garbage that contains FFHM shall be disposed of by securing in closed plastic bags and placing in covered disposal containers.
4. Allow the posting of exotic fruit fly posters and other project information and materials.
5. Allow periodic inspections by regulatory officers to verify compliance and provide updates on Project regulations.

Exhibit G: Growers

English Language:

1. No host materials (See Host List) grown within the quarantine area may be sold or moved out of the area without first undergoing a preventative treatment with an approved bait spray. Other treatments may be approved by regulatory officials (refer to grower regulatory procedures attachment).
2. All bait treatments will be conducted under the supervision of State or Federal regulatory officers.
3. Host material being transported may be exposed only for the length of time needed to unload.

Spanish Language: **Documento L: Viveros**

1. Todas las especies hospederas de la mosca de la fruta deben ser despojadas de fruta y mantenerse libres de fruta hospedera durante la cuarentena. Plantas hospederas con fruta no deben ser enviadas o vendidas (vea lista de hospederos).

2. Todos los contenedores existentes del vivero que tengan fruta hospedera madura deben ser empapados con un pesticida aprobado por el proyecto, para la larva y crisálida de la mosca de la fruta, y debe ser hecho bajo la supervisión de un oficial Estatal o Federal del proyecto.

3. Todas las plantas que vienen de proveedores fuera del area de cuarentena (vea mapa) deben ser despojadas de material hospedero suceptible en un plazo de 24 horas del recibo. Todas las plantas que vienen de proveedores dentro del area de cuarentena, deben ser despojadas de material hospedero suceptible (fruta, etc.) antes de recibirse.

4. Inspecciones periodicas serán conducidas por oficiales reguladores para verificar convenio con estas estipulaciones.

5. Carteles y otro material informativo puede ser fijado.

6. Cualquier vivero que tenga un convenio de conformidad existente con el Proyecto, seguirá todos los requerimientos, según lo estipulado para todo el material existente del vivero con fruta hospedera no afectada por este documento.

Exhibit H: Harvesters

1. Harvest only fruit that has received approved treatment and is certified for movement.
2. Pressure wash equipment used to harvest fruit at a minimum of 30 PSI before removing it from the grove.

Exhibit I1: Haulers Of Host Material From Within Quarantine

Name and Address of Receiver(s):_____

1. Host material (See Host List) will be delivered only to approved receiver(s).
2. Material is to be transported directly without stops or diversions.
3. Truck trailers will either be covered during transport or filled to a level not to exceed 12 inches below the rim of the container.
4. A logbook with information on the types and amounts of host material and the number and dates of deliveries per establishment, will be maintained, and presented upon request to Project personnel.
5. Project personnel will be promptly notified in the event of delay or accident.

Exhibit I2: Haulers Of Processed Host Material

Name and Address of Receiver(s)_____

1. Processed byproducts of regulated materials (See Host List) will be delivered only to approved receivers.
2. No stops or diversions will be allowed between processing plant and receiver(s).
3. Open truck containers will be covered while carrying processed byproducts or filled no higher than 12 inches below the rim of the container.
4. Trailers will be thoroughly cleaned at the destination receiver.
5. Periodic inspections by Project officers will be conducted.
6. A logbook will be maintained including information on type of material, amounts transported, dates, destinations, and number of deliveries per establishment, and presented upon request to Project personnel.
7. In the event of delay or accident, Project personnel will be promptly notified.

Exhibit J: Landfills

Host materials processed (See Host List)
_____

Disposal Method_____

1. All exotic fruit fly host material must be covered with soil compacted to a minimum of six inches or on a case by case alternative, daily covering every 24 hours sufficient to eliminate pest risk.
2. Project personnel will be notified if a green waste-recycling program is to be established on site, which will mandate a separate compliance agreement.
3. Project personnel will conduct periodic visits in order to assure compliance.
4. This compliance agreement is subject to periodic re-evaluation based upon assessment of pest risk.

Exhibit K: New Year Observance - Establishments Selling Nursery Stock During A Limited Holiday Period

1. Nursery stock with host fruit (See Host List) must be safeguarded through [check method(s) to be used]:
   _____Temperature Control _____Doors _____Screening _____ Air Curtain
   _____Plastic Bags _____Other method approved by Project staff.
2. Any nursery stock with host fruit not safeguarded will be stripped and undergo a chemical treatment. If the establishment is not a licensed nursery, and cannot accommodate a chemical drenching procedure of the nursery stock, then any host fruit or plant on the premises and not safeguarded will be seized.
3. Only nursery stock grown from outside the quarantine area(s) may be sold and must be accompanied with valid receipts. These receipts must be available for inspection on request.
4. While transiting a quarantine area, all nursery stock must be safeguarded.
5. Any remaining nursery stock with host fruit not sold by: ~~mm—dd—yy~~ will be stripped and undergo a chemical drenching. If the establishment is not a licensed nursery and cannot accommodate a chemical drenching procedure, then any nursery stock with host fruit on the premises that is not safeguarded will be seized.
6. Allow periodic inspections by Project officers to verify compliance.
7. Allow posting of posters and other informative material.

Exhibit L: Nurseries

English Language:

1. All fruit fly host species (See Host List) are to be stripped of fruit and kept free of host fruit during the quarantine. Host plants with fruit attached are not to be shipped or sold. See host list.
2. All nursery stock containers, which have ripe host fruit, are to be drenched with a project-approved pesticide for fruit fly larvae and pupae, to be done under the supervision of a State or Federal project officer.
3. All plants coming from suppliers outside the quarantine area (See Quarantine Map) must be stripped of susceptible host material within 24 hours of receipt. All plants coming from suppliers within the quarantine area must be stripped of susceptible host material (fruit, etc.) prior to receipt.
4. Regulatory officers will conduct periodic inspections in order to verify compliance with these stipulations.
5. Posters and other informative material may be posted.
6. Any nursery that has an existing compliance agreement with the Project will follow all requirements as stipulated for all nursery stock with host fruit not affected by this exhibit.

Spanish Language: Documento L: Viveros

1. Todas las especies hospederas de la mosca de la fruta deben ser despojadas de fruta y mantenerse libres de fruta hospedera durante la cuarentena. Plantas hospederas con fruta no deben ser enviadas o vendidas (vea lista de hospederos).

2. Todos los contenedores existentes del vivero que tengan fruta hospedera madura deben ser empapados con un pesticida aprobado por el proyecto, para la larva y crisálida de la mosca de la fruta, y debe ser hecho bajo la supervisión de un oficial Estatal o Federal del proyecto.

3. Todas las plantas que vienen de proveedores fuera del area de cuarentena (vea mapa) deben ser despojadas de material hospedero suceptible en un plazo de 24 horas del recibo. Todas las plantas que vienen de proveedores dentro del area de cuarentena, deben ser despojadas de material hospedero suceptible (fruta, etc.) antes de recibirse.

4. Inspecciones periodicas serán conducidas por oficiales reguladores para verificar convenio con estas estipulaciones.

5. Carteles y otro material informativo puede ser fijado.

6. Cualquier vivero que tenga un convenio de conformidad existente con el Proyecto, seguirá todos los requerimientos, según lo estipulado para todo el material existente del vivero con fruta hospedera no afectada por este documento.

Exhibit M1: Packers Inside Quarantine Area

1. Packing procedures are to be conducted in an enclosed area, with openings secured by screens, air curtains, doors, plastic strips, air curtains, or other means approved by Project personnel.
2. Host material (See Host List) must be stored in a secured area.
3. Safeguarding of host material must be done immediately after arrival into the packinghouse, with a minimum of exposure time, sufficient to allow unloading only.
4. All conveyances, equipment and tools used in association with fruit fly host material must be cleaned of all residues capable of harboring any life stage of an exotic fruit fly, prior to movement from the quarantine zone.
5. Culls and other remaining host material including fruit must be bagged and placed in the garbage for removal to an approved landfill.
6. Project personnel are to be notified prior to receipt of host material originating from within the quarantine area. A Limited Permit and/or a Certificate of Bait Treatment must accompany fruit fly host fruits and vegetables.
7. State and Federal Project personnel will conduct periodic inspections.
8. Stamps and codes for material to be exported must conform to requirements as stated in the Export Certification section.

Exhibit M2: Packers Outside Quarantine Area

1. Immediately upon arrival, host material (See Host List) originating from within the quarantine area must be kept segregated from non-quarantine zone-derived host material.
2. Project personnel must be notified before receipt of host material from within the quarantine zone. A Limited Permit or Master Certificate must accompany the shipment from within the quarantine area.
3. All conveyances, equipment, and tools used to handle or transport fruit fly host material from within the quarantine zone must be segregated from equivalent conveyances, etc., and cleaned of all residues capable of harboring any life stage of an exotic fruit fly.
4. All boxes packed with host material from within the quarantine zone must conform to specifications pertaining to marks and stamps as determined by the Project.
5. Periodic inspections by Project regulatory officers will be allowed in order to verify compliance with these stipulations.

Exhibit N1: Processors Inside The Quarantine Area

1. Processing will occur in an enclosed area, secured by screen, air curtains, plastic strips, doors, or other means approved by Project personnel.
2. Material is to be processed promptly or stored in a secured area under refrigeration apart from host material (See Host List) from outside the quarantine zone.
3. Culls and other unprocessed material are to be bagged or covered and removed to a landfill located within the quarantine area.
4. No diversion of host material such as raw unprocessed host fruit or vegetables may be removed from the quarantine area to a location other than that of a processing plant.
5. Periodic inspections by Project personnel will be allowed in order to verify compliance with these regulations.

Exhibit N2: Processors Outside The Quarantine Area

1. Host fruit fly material (See Host List) is to be processed promptly or stored under refrigeration in an area apart from host material derived from non-quarantine sources.
2. Culls and other unprocessed parts are to be bagged and placed into garbage receptacles or covered and brought directly to a landfill inside the quarantine area.
3. No raw host material is to be taken from the processor to a site other than that of another approved processing plant.
4. Periodic inspections by Project regulatory personnel will be conducted in order to verify compliance with regulations.

Exhibit O: Recyclers

Host Materials (see Host List) Processed:_____

Product:_____

Method of Disposal of Waste:_____

1. All exotic fruit fly host materials (See Host List) which are received from within a quarantine area must be processed within 24 hours of receipt by composting in a mound or receptacle which assures the maintenance of an internal temperature of at least 114 degrees F. or 44 degrees C.
2. Project personnel will conduct periodic visits in order to assure compliance with the composting conditions.
3. The processor will allow the Project or county personnel to place and service fruit fly traps on the property.
4. All non-composted material not processed with 24 hours of receipt, if the choice is made to divert to a landfill, must notify Project personnel of this intention. Fruit fly materials intended for diversion to a landfill, must be held on-site in tied plastic bags in the interim.
5. Disposition of the final product must be communicated in advance to the Project.
6. Risk evaluation will be conducted and may affect the continuation of this compliance agreement.

Exhibit P: Swap Meets

English Language:

Name of Swap Meet: _____

Address of Swap Meet:_____

Swap Meet Phone: (_____) ____ - _____ Name of Fruit Seller: _____

1. Purchases and Sales of exotic fruit fly host material (See Host List) will be restricted to treated or commercial fruit grown outside the quarantine area. Receipts for material offered for sale must be available for inspection on-site by Project personnel.
2. No host fruit or vegetables may be offered for sale unless accompanied by proper certification, including receipt of origin.
3. All commercial sold, moved through, or stored in the quarantine area must be protected from exotic fruit flies, using a Project-approved method of protection, including screens, plastic bags, etc.
4. All culls and other waste of a fruit fly host nature will be bagged, tied, and disposed of in a covered garbage container.
5. Periodic inspections by Project personnel will occur.
6. Informative posters may be placed on display.

Spanish Language: Documento P: Tianguis

Nombre del Tianguis:_____

Dirección del Tianguis:_____

Numero de Teléfono: (_____) _____-_____

Nombre del Vendedor:_____

Dirección del Vendedor:_____

1. Compras y ventas de material hospedero de moscas exóticas de la fruta serán restringidas, a fruta tratada, o producida comercialmente fuera del area de cuarentena. Los recibos del material ofrecido para la venta deben estar disponibles en el lugar para ser inspeccionados por personal del Proyecto.
2. Ninguna fruta o vegetal hospederos pueden ser ofrecidos a la venta sin ser acompañados por una apropiada certificación, incluyendo el recibo de origen.
3. Todos los productos comerciales vendidos, movidos a traves, o almacenados en el area de cuarentena deben ser protegidos de las moscas exóticas de la fruta, usando un metodo de protección aprobado por el Proyecto, incluyendo mallas, bolsas de plástico, etc.
4. Todos los desechos y otros desperdicios de hospederos de la mosca de la fruta deben ser enbolsados, amarrados, y dispuestos en un contenedor de basura cerrado.
5. Inspecciones periodicas por personal del Proyecto serán llevadas a cabo.
6. Carteles informativos deben ser fijados para información.

Exhibit Q: Transient Loads

1. The materials covered by these stipulations include all exotic fruit fly host commodities (See Host List), either entering or leaving designated quarantine areas and intended for processing, consumption, or export.
2. All loads transiting the fruit fly quarantine areas will proceed directly through the area in the most direct route, without stops or diversions.
3. In the event of an emergency or mechanical breakdown, all trucks will have tarps available to use to cover the load. Driver will immediately notify the Project.
4. All bins, boxes, and gondolas or other means of conveyance covered under this compliance shall be cleaned of all plant debris at destination.
5. Any loads found in violation of these terms will be subject to seizure or citation.
6. All loads destined for export transiting the quarantine area must be in sea containers or closed vans. All ventilation ducts must be covered with 16-gauge mesh or smaller.

Exhibit R1: Vendors – Wholesale Or Retail Within The Quarantine

English Language:

All Business Locations:_____
_____

1. Fruit fly host material (See Host List) offered for sale will be limited to commercially grown fruit from outside the quarantine area held under conditions of safeguard specified by the Project or treated fruit produced within the quarantine area which has supporting documentation such as proof of origin, treatment, etc., and has been protected from exposure to fruit flies (safeguarded) according to Project requirements.
2. Safeguarded methods, such as screening, enclosed boxes, air curtains, etc. must be pre-approved by Project personnel and applied to all fruit received, moved through, sold, and stored into the quarantine zone.
3. All culls and host material waste will be bagged, tied, and disposed of in covered garbage containers for transport to approved sites for disposal.
4. Periodic inspections by Project personnel will be allowed.
5. Informative materials will be posted.

Spanish Language : Documento R1: Vendedores de Fruta

1. Comprar y vender solamente fruta producida comercialmente fuera del area de cuarentena (vea el mapa).

2. Ninguna fruta o vegetal hospedero producidos dentro del area de cuarentena puede ser vendido (vea lista de hospederos).

3. Toda fruta commercial vendida, movida a traves, o almacenada en el area de cuarentena debe ser protegida a la exposición de las moscas exóticas de la fruta.

4. La protección de fruta hospedera debe ser salvaguardada a travez de [revise metodo(s) usado(s)]:

_____ Puertas	_____Control de Temperatura
_____ Malla (pantalla)	_____ Bolsas de Plástico
_____ Cortina de Aire	_____ Otro/Metodo aprobado.

5. Todo desecho y otra basura de frutas y vegetales sera embolsada, amarrada y dispuesta en un contenedor de basura tapado.

6. Permita inspecciones periódicas de oficiales del Proyecto para verificar el convenio.

7. Permita la fijación de cartels de la Mosca Exotica de la Fruta y de otro material informativo.

Exhibit R2: Mobile Vendors

English Language:

1. Fruit fly host material (See Host List) offered for sale will be limited to commercially grown fruit from outside the quarantine area held under conditions of safeguard specified by the Project or treated fruit produced within the quarantine area which has supporting documentation such as proof of origin, treatment, etc., and has been protected from exposure to fruit flies (safeguarded) according to Project requirements.
2. Safeguarded methods, such as screening, enclosed boxes, air curtains, etc. must be pre-approved by Project personnel and applied to all fruit received, moved through, sold, and stored into the quarantine zone.
3. All culls and host material waste will be bagged, tied, and disposed of in covered garbage containers for transport to approved sites for disposal.
4. Periodic inspections by Project personnel will be allowed.
5. Informative materials will be posted.

Type of Vehicle:_____Color of Vehicle:_____License #:_____
(Type: PU - Pick Up, VA - Van, SE - Sedan, BT - Bed Truck, TE - Trailer)

Anyone Selling or Packaging Un-Safeguarded, Regulated Fruit Within The Quarantine Area is In Violation and is Subject to a $500 Fine and/or Imprisonment. **In Addition, the Fruit will be subject to immediate seizure/confiscation.**

Spanish Language: Documento R2: Vendedores Ambulantes

1. El material hospedero de la mosca de la fruta (vea lista de hospederos) ofrecido para la venta deberá ser limitado a fruta producida comercialmente fuera del area de cuarentena y mantenerla salvaguardada, bajo las especificaciones del Proyecto, o fruta tratada producida dentro del area de cuarentena, teniendo como soporte, documentación, tal como prueba de origen, tratamiento, etc., y que haya sido protegida a la exposición de moscas de la fruta (salvaguardada) de acuerdo a los procedimientos del Proyecto.

2. Metodos de protección, tales como mallas, cubrir con plástico, cajas cerradas, etc., deben ser pre-aprobados por personal del Proyecto, y aplicados a toda la fruta recibida, movida a traves, vendida y guardada dentro del area de cuarentena.

3. Todo desecho y otra basura de material hospedero, será enbolsada, amarrada y dispuesta en un contenedor de basura tapado, para ser transportado a lugares aprobados para disposición.

4. Inspecciones periódicas por personal del Proyecto serán permitidas.

5. Materiales informativos seran fijados.

Tipo de vehiculo:_____ Color del vehiculo:_____ Placas No._____
(Tipo: PU – Pick Up, VA – Van, SE – Sedan, BT _ Bed Truck, TE – Trailer)

Cualquier Persona Que Este Vendiendo O Empacando Sin Ninguna Proteccion, Fruta Regulada Dentro Del Area De Cuarentena, Esta En Violacion Y Es Sujeto A $500 De Multa Y/O Encarcelamiento. Adicionalmente La Fruta Sera Confiscada Inmediatamente.

Exhibit S: Train Stations/Bus Depots

1. Station management will allow the posting or display of exotic fruit fly information materials in terminals.
2. Station management will allow locked containers / bins (e.g. “amnesty bins”) to be placed in and around terminal areas for voluntary disposal of quarantine material.
3. Station management will allow Project regulatory officers to question and inspect passengers for quarantine material.
4. Porters, baggage handlers, or other employees will not knowingly accept exotic fruit fly host fruits and vegetables for transport. Porters and employees will contact a Project officer at (___) _____ - _____, if they have any questions about host material acceptability.
5. This agreement shall remain in effect until further notice. Violations of any condition may terminate this agreement and requirements may be reevaluated.

Exhibit T: Yard Maintenance Workers

English Language:

1. All exotic fruit fly host material (FFHM, See Host List) must be disposed of in closed plastic bags (this includes host material mixed in with other materials such as grass clipping and leaf litter)
2. FFHM may not be taken home or given away – they must be hauled by a commercial trash collection agency and/or disposed of in a commercial landfill.
3. The Project must be informed of any changes in storage or disposal of FFHM
4. A Project-issued sticker displaying the compliance agreement number will be placed inside the vehicle on the driver’s side of the windshield, either in the inside, lower left-hand corner or on the inside, below the center rearview mirror.
5. There must be a sticker on each employee vehicle used by the company.
6. Note on the compliance agreement the license number and the make/model of the work vehicle.

Spanish Language: Documento T: Jardineros

1. Todo el material hospedero de moscas exóticas de la fruta (FFHM) debe depositarse en bolsas de plástico cerradas (esto inclute el material hospedero mezclado con pasto y hojas de plantas).
2. FFHM no puede ser sacado de las casas o regalado – estos deben ser recojidos por una agencia comercial de recoleección de basura y/o depositada en un basurero comercial.
3. El Proyecto debe ser informado de cualquier cambio en el almacenaje o la disposición de FFHM.
4. Una calcomania del proyecto será entregada mostrando el numero de convenio y sera fijada dentro del vehiculo en el parabrisas, del lado del conductor en la parte baja, o detrás del espejo retrovisor.
5. Debe haber una calcomania en cada vehiculo usado por los trabajadores de la compañia.

Section 5: Appendix C: Treatment Documents and Information

Cooperative _____ Fruit Fly Project
_____Rd./Ave./Blvd.
_____ California, _____
(____) _____ - _____

REGULATORY TREATMENT AGREEMENT

Compliance Agreement # _____
Zone: _____XSt:_____
County: _____Thos. Bros:_____
GPS:_____

Name Of Establishment: _____Phone: (____) ____ - _____

Establishment Address: _____City:_____Zip_____

Location of Crop: _____

All _____ fruit fly host fruits and vegetables grown inside the quarantine area must be treated if intended for sale or for movement out of the quarantine area (see attachments).
The crop owner or grower will provide all necessary chemicals, personnel, application and safety equipment. All treatments will be conducted in accordance with the pesticide label, the attached Registration for Special Local Need, and all county, state, and federal laws. An officer from the Cooperative_____Fruit Fly Project must monitor all treatments. The _____ Fruit Fly Project must receive advance notification of each intended application.

To be eligible for sale the crop treatment must begin at least 30 days before harvest and a minimum of four complete applications must have been made. The applications of pesticide must continue on schedule until the last harvest is completed.

Failure to comply with the treatment schedule will result in the fruit or vegetables becoming ineligible for sale or movement.

No liability shall be attached to the Cooperative _____Fruit Fly Project or its employees or cooperators in the event of injury to regulated articles or property from commodity treatments or quarantine regulations.

Name Of Owner/Grower:_____Phone: (____) ____ - _____
Signature Of Owner/ Grower: _____ Date: ____/____/200__

Signature Of Project Officer_____
Date:_____
Signing Will Validate Agreement, Which Shall Remain In Effect Until Canceled, Revoked, Or Suspended For Noncompliance.

Treatment Dates: 1st _____ 2nd _____ 3rd_____ 4th_____ Harvest Date:_____/____/200__

Project Officer's Initials _____

Attachment: Map, Host List *Original:* Project *Copy:* Business Revised 6/19/00

Cooperative _____ Fruit Fly Project

_____Rd./Ave./Blvd.

_____ California, _____

(_____) _____ - _____

Waiver of Liability

Name of Establishment: _____Phone: (_____) ____ - _____

Establishment Address: _____City: _____ Zip_____

To:_____Date: _____/_____/____

Subject: Fumigation of _____

The treatment prescribed for the commodity of _____ is _____

Currently, there is no tolerance data available for this treatment on this commodity. If you elect to fumigate this commodity, the Cooperative _____ Fruit Fly Project, USDA/ APHIS/PPQ, the California Department of Food and Agriculture, and the County(ies) of _____ _____, represented by the Office(s) of the Agricultural Commissioner(s), will not be held responsible for any damage or loss that may occur to this commodity during or after treatment.

_____ _____/_____/200__
Signature of Fruit Fly Project Official Date

_____ _____/_____/200__
Signature of Owner/Representative Date

MALATHION BAIT TREATMENT SCHEDULE*

	1	2	3	4	5	6
7	8	9	10	11 Treat	12	13
14	15	16	17	18 Treat	19	20
21	22	23	24	25 Treat	26	27
28	29	30				

			1	2 Treat	3	4
5	6	7	8	9 Treat	10	11 Permit Begins
12	13	14	15	16	17	18
19 Permit Ends	20	21	22	23	24	25
26	27	28	29	30	31	

*The grower must administer at least 4 applications during the treatment period, which is a minimum of 30 days, but could be longer, depending on life cycle degree-day calculations. The effective date of any permit issued is the day after completion of treatment (or the day following completion of the first treatment if treatment will be ongoing). Because the ending date on the permit is 10 days after the first application, the length of time that harvesting will be allowed can sometimes be less than 10 days.

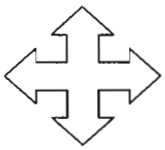
Cooperative _____ Fruit Fly Project
_____Rd./Ave./Blvd.
_____ California, _____
(____) ____ - _____

GROWER FIELD MAP

LEGEND

Symbol	No. of Trees	Type

N



Name of Grower (on CA form):		**Owner:**	
Location:			
Thos. Bros.:	**Zone:**	**CA#:**	**GPS#:**
Date:		**Officer:**	
Notes:			

Field Map Document 7/01

Cooperative _____ Fruit Fly Project
_____ Rd./Ave./Blvd.
_____ California, _____
(____) ____ - _____

Property Parcel Information

Establishment Name:_____
Compliance Agreement #:_____ Date signed:____/____/200__
County Location of Property/Parcel:_____

Place a check mark to the left of each category that applies to this establishment:					
	Airport/Train/Bus		Grower		Receiver
	Bee Owner		Harvester		Swap Meet
	Community Garden		Hauler		Transient Load
	Distributor		Home Owner		Vendor
	Food Bank		Landfill/Recycler		Yard Maintenance
	Farmers Market		Nursery		Nursery: New Year
	Fruit Seller		Processor		Non-commercial Orchard
	Grove Management		Packer		Other (specify)

Contact Information and Physical Location of Property/Parcel

Mailing Address:				City:					
State: Zip:									
Phone: (____)	Fax: (____)			**E-mail:** @					
Grower is (Check all that apply):		Certified		Organic		Bee Hives on Property		Owns Hives	Contracts Hives
Physical Location:						City Location:			
Cross Street:				Thos. Bros.:					
Grove Management:									
Bee Keeper:									
Crop / Commodities Information				Site ID Number:					
Name of Crop:				Variety:					
Total Acres:				Total Number of Plants/Trees:					
Acres to be Treated:				Plants/Trees to be Treated:					
Projected Harvest Date: Begin ____/____/200__ End ____/____/200__									
Harvester:				Hauler:					
Packer									
Crop / Commodities Information				Site ID Number:					
Name of Crop:				Variety:					
Total Acres:				Total Number of Plants/Trees:					
Acres to be Treated:				Plants/Trees to be Treated:					
Projected Harvest Date: Begin ____/____/200__ End ____/____/200__									
Harvester:				Hauler:					
Packer:									

Pesticide Reentry and Harvest Interval Table

Pesticide	Commodity – Check product labels for complete listings of all commodities	Reentry Interval (REI)	Preharvest Interval (PHI)	Remarks
Gowan Malathion 8 (10163-21, CA-830012)	Avocado, Apricot	12 Hours	7 Days	As Per Label
	Papaya	24 Hours	24 Hours	Per SLN/Label
	Guava, Mango, Passion Fruit	12 Hours	2 Days	Per Label
	SLN Citrus *, Nectarine, Peach	24 Hours	24 Hours	Per SLN
Clean Crop Malathion 8E (34704-452, CA-830012)	Avocado, Apricot, Mango, Guava, Passion Fruit, Papaya	24 Hours	24 Hours	Per SLN/Label
	SLN Citrus *, Grape, Nectarine, Peach	24 Hours	24 Hours	Per SLN
Gowan Malathion 8 Flowable (0163-21, CA-830012)	Avocado, Apricot	24 Hours	24 Hours	Per SLN/Label
	Mango, Guava	24 Hours	24 Hours	Per SLN/Label
	Apple, Plum	12 Hours	3 Days	Per Label
	Pear	12 Hours	1 Day	Per Label
	SLN Citrus *, Nectarine, Peach	24 Hours	24 Hours	Per SLN
Spinosad SGF-120 NF Naturalyte Fruit Fly Bait (62719-498)	All Crops Tolerance per supplemental label, organic registration	4 Hours	24 Hours	Per Section 3 Registration plus supplemental

* SLN Citrus (= Oranges, Lemons, Limes, and Tangerines)

Spinosad: Questions And Answers

USDA-APHIS-Plant Protection and Quarantine (July 1999)

Q: What exactly is Spinosad?

A: Spinosad is an insecticide used to control a variety of insect pests, including fruit flies, caterpillars, leafminers, thrips, dry wood termites, and certain beetles. Spinosad is the common name of a mixture of spinosyn A and spinosyn D, two molecules derived naturally from bacteria through fermentation. Spinosad is the active ingredient in several pesticides that are registered with the U.S. Environmental Protection Agency (EPA): DowAgro's Conserve, SpinTor, Success , and Tracer.

Q: How does the U.S. Department of Agriculture (USDA) use Spinosad in efforts to eradicate the exotic fruit flies?

A: USDA's Animal and Plant Health Inspection Service (APHIS) and the California Department of Food and Agriculture (CDFA) use a Spinosad-based bait spray to fight exotic fruit flies. A small amount of Spinosad is mixed with bait that includes sugar and a protein byproduct of corn.

Q: How does Spinosad work?

A: Spinosad kills susceptible species by causing rapid excitation of the insect nervous system. Exotic fruit flies must feed on the bait mixture and ingest the insecticide.

Q: How is Spinosad applied?

A: Both aerial and ground applications of Spinosad bait spray may be used in fruit fly programs, depending upon the size and location of the outbreak. Aerial applications are performed with helicopters or fixed-wing aircraft. Ground applications involve the use of backpack or hand sprayers or those mounted on all-terrain vehicles for eradication, and hydraulic sprayers for crop certification in commercial, host-plant nurseries or orchards.

Q: What is the rate of application for Spinosad bait spray?

A: The application rate per acre includes a mixture of 0.008 percent Spinosad and 28 percent sugar and attractants. The mixture is diluted in water. This application rate results in actual deposition of 0.00025 pounds active ingredient per acre of Spinosad, or 0.01 oz/acre contained in 48 fl. oz. (6 cups) of bait- spray product per acre.

Q: How does USDA determine whether to use aerial spray or ground applications of Spinosad?

A: Currently USDA is planning to use aerial application of Spinosad and bait in areas that are predominately in commercial production. In urban areas, USDA will use ground applications of Spinosad, unless the size of the infested area or severity of the infestation requires an aerial spray application. Control actions are *typically* prompted by the detection of two exotic fruit flies of either sex, a mated female, or an immature life stage. The size of the application area will depend on the location of detections.

Q: What effect does Spinosad have on non-target species?

A: The use of a bait mixture that targets fruit flies limits the impact on non-target species not attracted to the bait. Because Spinosad is highly toxic to bees, eradication program officials provide special assistance to registered beekeepers.

Q: How long do treatments last?

A: Spinosad applications usually are administered 5 days apart until eradication is achieved, as determined by the absence of detections in baited traps. Applications may continue for two life cycles of the pest beyond the date of the last detection in the treatment area to ensure that immature life stages, such as eggs and larvae, develop and are exposed to the treatment. Under tropical weather conditions, an exotic fruit fly can complete its life cycle in 21 to 30 days, or about 8 to 12 applications. APHIS is often able to reduce the number of applications when the situation allows the use of sterile exotic fruit flies (the preferred strategy for eradicating Mediterranean fruit flies)

Q: Are there any health risks associated with the Spinosad treatments?

A: Health risks from exposure to Spinosad bait spray treatments depend upon the amount of exposure and individual susceptibility. Spinosad poses low hazards and negligible risks when handled properly. Extremely large doses of Spinosad (at least 2,000 times the application rate for the program) are necessary for acute intoxication of humans and other mammals. The small amount of exposure that members of the public have with Spinosad bait spray is well below what is known to cause acute toxicity for humans.

Q: Does Spinosad cause cancer or birth defects?

A: There is no evidence of carcinogenicity of Spinosad based on chronic rodent feeding studies. Reproductive and developmental toxicity occur only at exposures much greater than any exposures that could occur from applications of Spinosad bait spray.

Q: Can Spinosad damage the eyes?

A: Spinosad showed slight conjunctival irritation, or agitation of the membranes lining the eyelids, in primary eye irritation tests. The low levels of exposure from Spinosad bait spray applications are insufficient to cause visual problems.

Q: How does Spinosad affect people with allergies, chemical sensitivity, and other special health problems?

A: Immunological responses to chemical exposure within a population vary. Spinosad is not a skin sensitizer, but some individuals may have allergic or hypersensitive reactions to Spinosad or the bait.

Q: What precautions should people take in the treatment area?

A: People should do their best to minimize exposure. Avoid unnecessary contact with pesticides. Remain indoors during Spinosad bait spray applications. Do yard work before treatment begins rather than after. Rinse off outdoor play areas. Wash skin and clothing if contact occurs. There is no need for people to relocate during aerial applications of Spinosad bait spray if they take proper

precautions to avoid potential exposure.

Q: Is it okay to eat fruits and vegetables exposed to treatments?

A: Before cooking or eating homegrown vegetables, rinse them with water, just as you would those purchased from the grocery store. Washing further minimizes any potential exposure.

Q: What is the swimming pool re-entry interval after an area has been treated with Spinosad?

A: There is no re-entry interval, and the low rate of applications ensures that exposure from swimming is not of concern.

Q: How long will Spinosad residues remain in yards?

A: Residues from applications of Spinosad bait spray are short- lived. The half-life of Spinosad on cotton is only a few hours on a sunny day. The average length of persistence depends on the amount of sunlight and precipitation. Increased exposure to sunlight and increased rainfall accelerate the breakdown of Spinosad.

Q: What effect will treatment have on wildlife?

A: Spinosad as applied in exotic fruit fly eradication programs does not pose any hazard to mammals, birds, reptiles, amphibians, fish, or aquatic insects. Under normal circumstances, Spinosad poses no hazard to most pets. It can be toxic to those invertebrate species that ingest the bait, and temporary reductions in the populations of some terrestrial insects could occur.

Q: Why is it that these applications of Spinosad are toxic to insects but not to people?

A: The sensitivity of insects to Spinosad is far greater than humans because of difference in physiology, site of toxic action, and types of enzymes present. The bait treatment used in the eradication programs is attractive to flies. As a result, flies eat the pesticide, resulting in greater exposure.

Q: Could there be any cumulative effects from other exposures that I could receive?

A: The low application rate ensures that exposures are unlikely to have any effects on humans. The rapid degradation rate of Spinosad ensures that it will not persist long in the natural environment. Spinosad is readily eliminated from or broken down by enzymes in the human body. Cumulative exposures would require multiple exposures within a short period of time. This is highly unlikely for exotic fruit fly program applications.

Q: Can exotic fruit flies become resistant to Spinosad?

A: Resistance to Spinosad would require the survival of multiple generations of flies exposed to Spinosad. The eradication program applications of Spinosad bait spray do not allow survival of exotic fruit flies, so the development of resistance is highly unlikely. The rapid degradation of Spinosad also ensures that sub-lethal exposures to flies are unlikely to result from residues.

Q. Has EPA authorized the use of Spinosad for exotic fruit fly eradication?

A: Yes, temporary tolerances are in place to allow use in exotic fruit fly programs. Spinosad has been granted permanent tolerances for some fruits (including citrus), nuts, vegetables, cotton, and meat.

Q: Will Spinosad contaminate groundwater?

A: Spinosad adheres readily to organic matter and is relatively immobile in soil. Spinosad is not expected to leak into groundwater. Test results indicate that Spinosad typically decomposes before reaching groundwater.

Frequently Asked Questions: Malathion and other Pesticides

(Adapted from "Facts About The Mediterranean Fruit Fly And Efforts To Keep It From Becoming Established In California," CDFA, 9/95)

Q: Can't eradication be done without using toxic pesticides?

A: Unfortunately, no method is currently available that can effectively eradicate fruit fly populations without some use of pesticides. The best we can do at present is to minimize the use of pesticides by using a combination of methods to reduce the amount of pesticide that is needed. While we are confident that the manner in which pesticides are used to eradicate the Mediterranean fruit fly does not pose any significant risk to the public, we are continuing to search for non-chemical approaches to dealing with infestations in urban areas.

Q: How long are treatments necessary?

A: How long treatments will last depends on a number of factors. A temperature based time model is used to gauge the length of time it takes for a generation of flies to complete its reproductive life cycle and pass through all stages of development. Eradication depends on assuring that there is an insufficient population of flies left to continue breeding. Past experience indicates that treatments may go on for anywhere from four months to a year, or longer. Much depends on the time of year when treatment begins. Treatments are usually more frequent during warmer weather, but may not last as long. Treatments during cooler weather are usually less frequent, but need to be continued for a longer period of time.

Q: What exactly is malathion?

A: Malathion is an organophosphorous chemical, developed in early 1950s. It is a popular home-garden insecticide that is used worldwide, and is one of the least hazardous of all insecticides known. Besides being used on home gardens and landscapes, it has widespread use on dairy farms, chicken ranches, and on orchards and commercial food crops. It is used on pets and livestock to protect them from fleas and biting flies. It has been marketed in a shampoo to treat children for head lice. It is used regularly in urban areas for mosquito abatement. Malathion has a record of safe and effective use in past exotic pest eradication programs in California and elsewhere.

Q: I've heard that malathion is related to WWII nerve gas. Is this true?

A: Malathion is derived from the same class of chemicals as were some nerve gasses, but it is a liquid, and does not have nerve gas characteristics. Methanol and ethanol belong to the same chemical class, yet have a very different toxic potentials. Ethanol is in alcoholic beverages. Methanol is wood alcohol and can cause severe neurological damage if one drinks it.

Q: Is malathion safe? I've head it is highly toxic and dangerous to use.

A: Toxicity is dose related. No chemical can be said to be absolutely "safe." Safety pertains to how one handles a material. Even highly hazardous materials can be used safely. Malathion is not particularly dangerous or hazardous to use. Relatively large doses are necessary for it to be toxic to humans or other animals. The amount applied for fruit flies, and the manner in which it is applied (in a bait), does not expose members of the public to a significant toxic risk. The small amount of malathion people might come in contact with as it is applied, either from the ground or by air, is well below what is known to be toxic for humans. Concentrated solutions of malathion are sold for use by home gardeners in many neighborhood stores that carry gardening supplies.

Q: How is malathion used to kill exotic fruit flies?

A: The California Department of Food and Agriculture, in cooperation with the USDA, has developed an eradication program that uses malathion mixed with a food bait that attracts flies. The malathion and bait mixture is applied as tiny droplets that stick to surfaces they contact. Adult flies are killed when they are attracted to the bait and eat it. As little as 12 fluid ounces of the mixture applied per acre is adequate to achieve eradication. Uniform applications are necessary if all flies are to be killed. In addition to killing mature flies that may have already mated, flies emerging from pupae require nutrients before they begin to mate. If malathion is present in bait as they emerge, immature flies that eat the bait are eliminated before having a chance to reproduce.

If an area of infestation is limited in size, it may be possible to use backpack sprayers to apply the malathion bait mix directly onto the foliage of plants where exotic fruit flies may be found. Two or three applications are generally necessary to effectively rid the environment of existing mature flies prior to beginning the release of sterilized flies. When infested areas are extensive or widely scattered, it may become necessary to apply the bait mixture from aircraft. Aerial applications usually begin late in the evening. Most of the droplets reach the ground within a few minutes after application aircraft pass overhead. Only scattered slower falling droplets may be detected for a short while after this. After 30 minutes, settling is no longer visibly detectable.

In the past, very large areas of infestation have required numerous repeated aerial applications of malathion in bait in some areas because an insufficient number of sterilized flies were available for release. The prospect for repeated aerial application of malathion in bait has been greatly reduced by increasing sterile fly production capability. However, one cannot accurately predict the extent future potential infestations may reach, and there is some chance that repeated aerial application may need to be considered, depending on the total area infested in the State at any given time.

Q: I've heard that the malathion used to eradicate flies is only 95% pure. What's the other five percent?

A: The malathion used for fruit fly eradication is known as "technical grade." When malathion is produced (manufactured) a number of impurities remain in the final concentrate. While these impurities contribute to overall toxicity, they are present when the toxicity of malathion is tested, and are therefore accounted for. All the impurities together, amount to only five percent of the final product. There are approximately 16 identified impurities, most of which are present in an amount less than one percent. Some of the most prominent impurities are: isomalathion, malaoxon, and various phosphorus esters that are byproducts of chemical reactions that produce malathion.

Q: Why not use pure malathion?

A: Normally, pure malathion is not produced commercially. It is only necessary to remove minor impurities when they hamper product performance, either by interfering with desired activity or causing undue adverse reactions. The technical grade material used for fruit fly eradication is the same material used in virtually all commercial malathion products. Toxicity testing has been done using this same material.

Q: Is it possible to inhale the spray?

A: The droplets are tiny, but do not remain in the air like aerosols do. During the brief time droplets are falling after release from aircraft, there is little likelihood of breathing in any significant amount. The concentration of malathion in air, due to evaporation after application is very small: in the parts per trillion range.

Q: What happens to the malathion after it's applied?

A: Malathion gradually breaks down after it is applied. The break down products are generally much less toxic than malathion, and eventually return to their normal elemental state. Malaoxon, which is formed when oxygen replaces a sulfur in the malathion molecule, is more potent than malathion. Environmental monitoring during and after malathion bait applications has detected relatively small amounts of either malathion or malaoxon. The amount of residue found in the environment does not reasonably suggest a meaningful toxic threat to people or the environment. Malaoxon itself breaks down more rapidly than malathion once it is formed. Repeat applications of malathion are necessary because not enough is left to effectively kill flies two to four weeks after it has been applied.

Q: What is the bait?

A: The bait is primarily protein, carbohydrate and fat with some inorganic salts, such as sodium chloride (table salt), and water. It is made mostly from corn, and is similar to processed food.

Q: What about malathion getting into swimming pools?

A: Almost all swimming pools and wading ponds are deep enough so that the concentration of malathion residues, after aerial application of malathion in bait, will not reach the drinking water

action level of 160 parts per billion, established by the California Department of Health Services.

Malathion residues degrade very rapidly in swimming pool water, and are virtually gone in about 48 hours. This has been verified through independent monitoring conducted during previous fruit fly eradication projects.

Q: Could malathion be harmful to pets or wild animals?

A: Except for fish, malathion, as applied for fruit fly eradication, does not pose a hazard to pets and wildlife. It is used in dairy barns and chicken coops, and is applied directly to pets and livestock to rid them of body pests, such as fleas and biting flies. Shallow pools, such as garden fish ponds should be covered when application take place, and uncovered the next morning. This will prevent direct contamination of the pond and avoid oxygen deprivation, which could occur if the cover is left on too long.

Q: What effect will the malathion have on other insects, like honeybees and other beneficial insects?

A: There may be temporary reductions in the population of some insects, and temporary increases in others, based on individual species susceptibility. Populations normalize once again, after treatments stop. Honeybees are not attracted to the bait. Some bees may be killed, however, because they may crawl through bait droplets while foraging.

Q: Are there any precautions people should take when the malathion mixture is applied?

A: Yes.

- Malathion bait droplets can damage certain automobile paints. This hazard is similar to that of fruit juices, tree saps, raw egg, and the like. AUTOMOBILES should be put in garage or covered when bait applications are made. If left out, they should be washed off the following morning.

- Some plastic SKYLIGHTS AND AWNINGS may be spotted (stained). They should be covered during, or washed off after, spraying.

Additional prudent measures anyone might take to reduce exposure include:

- Remaining indoors when applications are being made.

- Bringing in CHILDREN'S TOYS. If left out, wash them before allowing children to play with them.

- Before cooking or eating homegrown FRUITS AND VEGETABLES, rinse them with water, just as you would those purchased from a store.

- Cover PICNIC TABLES, or hose them off after spraying.

- Wash EXPOSED SKIN SURFACES with soap and water after touching surfaces that have bait residues.
- Don't leave LAUNDRY hanging out during application. Launder soiled clothing before it is worn.
- Do YARD WORK before, rather than immediately after spraying.

Section 5: Appendix D - Communications

Cooperative _____Fly Project	CA#:_____
_____ Rd./Ave./Blvd.	
_____, CA _____	
(_____) _____ _____	

Notice To Hold Commodities On Premises

(Authority: California Food and Agricultural Code, Section 5701-5704)

Mark Establishment Type:
_____Grower _____Nursery _____Fruit Seller _____Homeowner _____Distributor
_____Other (Describe)_____

Name:_____	Phone ( )____ - _____

Street Address:_____ City:_____ Zip:_____

County: _____

Zone:_____XST:_____ Thos. Bros.:_____ G PS:_____

Location (if different from above):_____

Description and Number of Items on Hold:_____

_____

Reason for Issuance:_____

You are located in a _____fruit fly quarantine area. You are hereby notified that it is unlawful under Sections 5701-5704 of the California Food and Agricultural Code to move any raw or unprocessed fruits or vegetables, any fruit or vegetable plants (including immature plants), or soil, compost, or other growing media associated with such plants, from your premises, except under written permission of an officer of the Cooperative _____Fruit Fly Project, or until this order is revoked in writing.

No liability shall be attached to the Cooperative _____Fruit Fly Project, its employees or cooperators, in the event of injury to regulated articles or property due to commodity treatments or quarantine regulations.

Name of Person Contacted:_____

Signature:_____	Date: _____/_____/200__

Name of Project Officer:_____

Signature:_____	Date:_____/_____/200__

Signing will validate this agreement which shall remain in effect until canceled, revoked, or until released by Project officers.

9/01

SCRIPT – FOR GATHERING INFORMATION USING THE HOMEOWNER'S QUESTIONNAIRE

[*Introduce yourself*] Hello, my name is _____; I'm with the _____ Fruit Fly Project. You may have seen our officers in the area. Recently several _____ fruit flies were found in this area. Each section of our emergency project has a specialty, such as trapping. We are working in the Regulatory Section, which is the quarantine enforcement division of the Project. Our goal is to stop the movement of the fly (larvae) in fresh fruits and vegetables coming from this neighborhood or area.

We need to inform you that moving fresh fruits or vegetables that are a "host" to this exotic fruit fly is not permitted while the quarantine is in effect. **Only host material that has been processed (i.e., canned, juiced, baked, frozen, etc.) is allowed to be moved off your property. No fresh whole fruits or vegetables can be moved, not even to your next-door neighbors.** Once host material moves to your neighbors or relatives, there is no way to keep it from crossing the quarantine's boundaries. People given these fresh fruits or vegetables could potentially carry them outside the quarantine, or give them away to someone else who could. This defeats the purpose of a quarantine, which is to contain any material that could have exotic fruit fly larvae in it.

If you have a few minutes we would like to ask you several voluntary questions that will help us determine where these exotic fruit flies may have first appeared in this area. It is also very important to determine where possibly infested host material has been moved; this could help prevent additional fruit fly outbreaks and new areas from being put into quarantine. Any related information you can provide will help us in these fruit fly eradication efforts, and is considered confidential.

[*Following completion of the questionnaire*] Thank you for your cooperation in helping us eradicate this insect pest. During the next week or so you will probably notice many people from the Project working in this neighborhood and the surrounding area. Each of them will be wearing a picture identification badge, which you have the right to inspect. Should you have any additional questions, we encourage you to call the toll-free number on the _____ fruit fly information pamphlet you've received. Thank you for agreeing not to move your fresh, whole fruits and vegetables that are hosts to these exotic fruit flies.

*[Any questions that the field officer is unable to answer should be written down along with the resident's phone number; a Project officer will call the person back with a reply. Under no circumstances should a field officer attempt to "fake" the answer or knowingly give a possibly incorrect response to a question. If the resident is not at home, _____ fruit fly quarantine information can be left at the address (but **do not place** any such materials directly inside the residence mailbox). Additionally, the questionnaire itself is **not** to be left with the respondent. It must be filled out during the interview itself.]*

_____Fruit Fly Project
Homeowner's Questionnaire

Core Area:_____Officer:_____Date: _____/_____/____
Resident's Address:_____ City:_____Zip: _____

Check appropriate answer:

1) Do you have any friends/relatives in other exotic fruit fly quarantine areas/districts/counties in this state? ____YES ____NO. If yes, have you received any fresh fruits/vegetables from them recently? ___ YES ____NO.
If yes, type of fruits/vegetables received:_____
Please provide the address(es) of friend(s)/relative(s) who gave you fruits/vegetables:
_____

2) Have you shared any fresh, homegrown fruit/vegetables with anyone in the past two months? ___YES ____ NO. If yes, types/kinds of fruit/vegetables received or shared: _____
Please provide the names and addresses of produce provider or recipient: _____
_____

3) Have you traveled anywhere outside of California in the past 12 months? If so, where? _____
_____
If outside the mainland U.S.A. (i.e., to Hawaii, Mexico, Philippines, another country in the Tropics, etc.), what did you bring back with you (such as souvenirs, fruits or vegetables, etc.)?
_____

4) Have you recently purchased any tropical or exotic fruits (for example: citrus, guavas, mangos, sapotes, cherimoyas, etc.) from any source other than a commercial supermarket (for example: swap meet, flea market, yard sale or fruit vendor)? ____ YES ____ NO.
If yes, please provide the names and addresses (or locations): _____
_____

5) Do you have any fruit trees or vegetable plants on your property? ____ YES ____ NO.
If yes, what types are they?_____

6) Do you use the services of a landscape or yard maintenance company/worker? ____ YES ____ NO. If yes, company name and address: _____
_____ Phone: (___)_____-_____

7) Have you ever observed any worms/larvae/maggots in any of your homegrown fruits or vegetables (i.e., in your apricots, oranges, etc.)? ____ YES ____ NO.
If yes, what types of fruit **and** when did you last see them (i.e., how long ago)?
_____

FOR PROJECT USE: OTHER SECTIONS - TRAPPING, FRUIT CUTTING, ID RESULTS: (CIRCLE APPLICABLE SECTION)_____

_____

FREQUENTLY ASKED QUESTIONS REGARDING EXOTIC FRUIT FLY QUARANTINES

Q. I have some fruits that will not be ripe until spring. Do I still need to treat those trees?

A. Depending on the treatment schedule for your fruit, it may be necessary to begin treating now for a spring harvest date.

Q. I have trees in pots. Can I sell them or do I need to get a permit first?

A. During this quarantine, without first treating the fruit and the soil, you cannot sell your trees, regardless of where they are on your property. You will need to obtain a quarantine permit in order to sell them.

Q. What kind of treatment do I need to treat the soil in pots?

A. During the quarantine, drench treatments for nursery stock can be done to allow the plant material to move after completing three successive treatments.

Q. Do I need to sign any compliance agreement? If yes, then why do I need to sign a hold notice, since most of the things listed on the hold notice are already mentioned on the compliance agreement?

A. Compliance Agreements are used to outline elements of a required program, so growers know what is expected of them. Only properties within 200 meters of a fly find are issued a hold notice ~~during the quarantine~~. Fruit under such a hold notice can only be moved with written permission from the Project.

Q. What about my neighbors? They have fruit trees but apparently have not yet signed any compliance agreement.

A. Participation in this treatment program is mandatory during a declared quarantine.

Q. What fruits are hosts of exotic fruit flies?

A. Many soft-skinned fruits are hosts to these flies. To find out more, call the Project, visit our Web site, or refer to the enclosed host fruit list for exotic fruit flies. Note that some other fruits may also be hosts, even if not named on the list.

Q. I only have a few fruit trees and do not plan to sell my fruit. Can I give away any fruit to my family, friends, neighbors or charity?

A. During a declared quarantine, you may not give away your fresh, homegrown fruit anywhere and to anyone you choose; it must first be processed.

Q. I have host fruit that I want to sell. What do I need to do?

A. Call the Project for details on what steps you must take and the type of permit you need in order to sell your harvested host fruit. If you have host fruit trees still bearing, you can enter a program to treat them, according to guidelines established by USDA and CDFA.

Q. What if I choose not to treat?

A. If a quarantine has been declared, and you choose not to treat, you may not remove fresh host fruit from your property without Project permission and then only according to regulatory guidelines.

Q. Can I treat my fruit after I pick it?

A. Some fruits can be fumigated following harvest; otherwise host material must be processed before it can move from your property.

Q. What should I do with the fruit on my trees if I choose not to treat?

A. Once a quarantine is declared, untreated fruit that is harvested can only be removed from your property following a Project-monitored commercial treatment, or if it has been processed.

Q. Who will pay for the treatments I decide to apply?

A. All treatments are at the expense of the owner of the fruit.

Q. Who will tell me how I need to treat my fruit?

A. The Exotic Fruit Fly Project staff can advise you on many aspects of treatment, such as what materials to use, the best time of day to treat, what application methods can be used, and how often treatments need to be applied.

Q. What do I need to do before I begin treating my fruit?

A. You should contact the office of your County Agricultural Commissioner to obtain a Pesticide Use Permit, which will allow you to conduct the treatments. You can also apply to the Commissioner for a Site ID Number and a Grower ID Number that you will need in order to purchase the treatment material. You must have these either with you or nearby, when you or somebody you hire conducts the treatments. You will also need to be issued one of the following by your County Agriculture Commissioner: an SLN (Special Local Need) Permit for purchasing and use of malathion, *or* a Section 18 Permit for purchase and use of Spinosad. Next, you need to contact the Exotic Fruit Fly Project to coordinate treatments. Project staff will give you a Treatment Schedule. Both you and Project staff will then sign a Treatment Agreement, and they will ask for some specific information about your property (i.e., how many acres/trees you will be treating, if you will be using a grove service, etc.). Then you need to pick a date to begin treatments and notify the Project staff of this date. You can use the Treatment Schedule and your expected harvest date to make this decision. Exotic Fruit Fly Project staff will keep records of all your treatments and issue you a certificate of completion when you have completed the prescribed number of treatments.

Q. What material do I use to treat?

A. You have two options: You can use malathion, mixed with liquid bait and water, and sprayed directly on the leaves of your trees, or you can treat your fruit using a product called Spinosad. Spinosad is sprayed directly on the leaves of your trees, and is considered an "organic" treatment by some organic product certifiers. An Agricultural Official may be on site during treatments to supervise and answer any questions.

Q. How long does the treatment period last?

A. The length of the treatment period depends on the weather. Quarantine Project staff will advise you on the length of the treatment period, but the range can be between approximately 30 days to 100 days.

Q. How many treatments will I have to apply during that time?

A. You will have to apply one treatment every 7-14 days. If it rains more than ½ inch, you will have to reapply any treatment that was applied in the last 24 hours.

Q. Can I eat my own fruit?

A. Yes, you can eat your own fruit while on your property, whether a quarantine is in place or not.

Q. How will I know if my orchard is in the vicinity of an exotic fruit fly find?

A. You should contact the Exotic Fruit Fly Project or the local office of your County Agricultural Commissioner.

Q. Is there a quarantine fumigation available at this time?

A. At this time, for some host fruits, there are standard fumigation options for treatment against exotic fruit flies.

Q. My fruit is ready to pick right now. I have to pick it soon; otherwise I could lose the whole crop. What should I do?

A. You should harvest your crop as you normally would; but you will need to then choose a treatment or processing option in order to move it from your property.

[SAMPLE BULLETIN TO GROWER ASSOCIATIONS / PACKING HOUSES]

To: All Grower Associations/Packing houses

From: Cooperative _____Fruit Fly Eradication Project

_____ fruit flies (abbreviated as _____)were recently found in traps in the _____ area. The _____ fruit fly is a serious pest that affects the quality of various types of fruits and vegetables. In an attempt to eliminate the danger and expense that this pest could bring to agriculture if it became established, and to prevent the spread to other areas, a quarantine has been enacted in the _____ area.

Enclosed you will find a list of fruits and vegetables that are known to be hosts for the _____ fruit fly and a map of the quarantine area. These commodities will be the focus of the quarantine. Fruits and vegetables that are _____ fruit fly host material have a risk of spreading the _____ fruit fly not only when being grown, but also when being prepared for shipping to the packing houses and processors. Host material left unprotected provides the opportunity for _____-fruit fly infestation.

Host material (see attachments and pamphlets) that was grown inside a quarantine area must go through a treatment program, monitored by a Project officer, before being sent to a packinghouse or processor. Growers meeting these requirements must have a certificate or limited permit, issued by Project personnel, that enables the packinghouses and processors to accept the host material.

The Project is requesting your cooperation in ensuring that all host material that you intend to sell has been treated under a procedure monitored by a regulatory officer and is safeguarded by Project-approved guidelines.

Regulatory officers are in the quarantine area notifying the packinghouses and processors of these requirements. The Project is requesting a list of the packinghouses and processors you have business with both inside and outside the quarantine boundaries, to ensure that none have been overlooked during regulatory information-gathering activities.

If your association members transport _____ fruit fly host material through the quarantine area, no stops are permitted unless the host material is kept safeguarded. This can be accomplished through the use of enclosed vehicles or by completely covering the entire load with a tarp or other barrier. If stops, including breakdowns, are made and safeguarding conditions are not implemented, the load of host material is subject to seizure.

Thank you in advance for your cooperation and adherence to these requirements. Please inform all association members of this quarantine and its restrictions. Notify the Regulatory Section of the Project at (_____) ____-_____ if you need additional pamphlets, information, or have any questions.

Sincerely,

Regulatory Section Leader
Enclosures

[SAMPLE COUNTY LETTER TO NURSERIES]

To: Nurseries in _____ Fruit Fly Quarantine Area

From:
Agricultural Commissioner/
Sealer of Weights and Measures

_____ FRUIT FLY QUARANTINE

_____fruit flies (abbreviated _____) were found recently in traps in the City of _____ . The _____ fruit fly is a serious pest that affects the quality of various types of fruits and vegetables. In an attempt to eliminate the danger and expense that this pest could bring to agriculture if it became established and to prevent the spread to other areas, a quarantine has been enacted in the _____ area.

Enclosed you will find a list of fruits and vegetables that are known to be hosts for the _____ fruit fly and a map of the quarantine area. These commodities will be the focus of the quarantine.

Nursery stock with fruit (i.e., fruit fly host material) has a high degree of risk of spreading the _____ fruit fly as it is sold and transported outside the quarantine area. To eliminate the risk and prevent the spread of the _____ fruit fly, quarantine regulations require host material (i.e., fruit) to be stripped off the nursery stock and either destroyed or disposed of properly. Do not strip, destroy or dispose of fruit unless a quarantine officer is able to monitor the process. The _____ Fruit Fly Project will furnish staff to assist in the stripping and destruction of host material fruit.

A member of our staff will be contacting you in the near future to explain the _____ Fruit Fly Quarantine regulations and inspect your nursery. Nurseries selling host material plants will need to sign a Compliance Agreement, which will be provided at the time of the inspection, before they can sell or move such stock. If you have any questions, please call _____at _____ (_____) ____ - _____.

The _____ County Department of Agriculture, Weights and Measures and the California Department of Food and Agriculture appreciate your cooperation.

Agricultural Commissioner/
Sealer of Weights and Measures

Enclosures

[SAMPLE LETTER TO RETAIL/WHOLESALE FRUIT AND VEGETABLE SELLERS]

To: Retail/Wholesale Fruit and Vegetable Sellers

From: _____
Agricultural Commissioner/
Sealer of Weights and Measures

EXOTIC FRUIT FLY QUARANTINE

A number of ___ fruit flies were found recently in traps in the City of _____. This exotic fruit fly is not known to occur in California and is a serious insect pest that affects the quality of various types of fruits and vegetables. In an attempt to eliminate the danger and expense that this pest could bring to agriculture if it became established and to prevent its spread to other areas, a quarantine has been enacted in the _____ area.

Enclosed you will find a list of fruits and vegetables that are known to be hosts for the ___ fruit fly and a map of the quarantine area. These commodities will be the focus of the quarantine.

Fruits and vegetables, that are ____ fruit fly host material, have a risk of spreading this insect pest when sold and transported outside the quarantine area. Host material left unprotected while on display provides the opportunity for the ____ fruit fly to deposit its eggs in the fruit or vegetable.
To eliminate this risk and prevent the spread of the ___ fruit fly, quarantine regulations require host material (i.e., fruits and vegetables) displayed in the open air to be protected. This can easily be accomplished by bagging, covering with plastic tarps, screens or moving host material indoors.
All ___ fruit fly host items sold need to be bagged (paper, plastic or cloth) at the time of sale.

A member of our staff will be contacting you in the near future to explain the _____ Fruit Fly Quarantine regulations and inspect your facility or store. Retailers and wholesalers selling host material should sign a Compliance Agreement (which will be provided at the time of the inspection). If you have any questions, please contact _____ at _____.

The _____County Department of Agriculture, Weights and Measures and the California Department of Food and Agriculture appreciate your cooperation.

Agricultural Commissioner/
Sealer of Weights and Measures

Enclosures

(English Language Handout)

To: Fruit and Vegetable Vendors

From: _____
Agricultural Commissioner/
Sealer of Weights and Measures

ATTENTION FRUIT and VEGETABLE VENDORS:

A quarantine for the _____ fruit fly has been established in this area under Section ____ of the California Code of Regulations (see attached quarantine map and host list of fruits that can be infested by these exotic fruit flies). If this pest is allowed to spread, irreparable damage will occur to the agricultural industry in this state. Anyone selling host fruit and vegetables in the quarantine area must comply with the following requirements:

- Buy and sell out commercially grown fruits and vegetables (fruit fly host material) grown outside the quarantine area (see map).
- Fruit fly host material must be protected from fruit flies by bagging it in plastic bags or covering it with 16-gauge screening material or plastic sheeting.
- Fruit fly host material that is not used or sold, culls, garbage, etc., must be properly disposed of by putting them in thick plastic bags that are then tied shut and deposited in the garbage for burial at the local landfill.

Anyone selling or packing unprotected, regulated fruits and vegetables in the quarantine area is in violation of state law and the fruit will be immediately confiscated. The violator is subject to a $500.00 fine and/or 6 months in jail.

(Spanish Language Handout)

ATTENCIÓN VENDEDORES DE FRUTAS y VEGETALES:

En cumplimiento de la Sección ____ del Código de Reglamentos de California se ha establecido una cuarentena contra is Mosca del _____ de la fruta (vea mapa y lista de frutas hospederas). Si se permite que esta plaga se propague, la industria agricola sufrira danos irreparables. Todo vendedor de frutas y vegetales vendiendo en el area de cuarentena tiene que cumplir los siguentes reglamentos:

- Comprar y vender unicamente frutas o vegetales producidos comercialmente fuera de la zona de cuarentena (vea mapa).
- La fruta o vegetal hospedera puede protegerse usando bolsas de plástico, tela metálica (screen) o cubierta con plástico.
- Las frutas o vegetales que se vayan a tirar tiene que ser desechadas dentro de bolsas de plástico grueso, amarrada y puesta en el sistema de recoleccion de basura para ser enterrados en el basurero local.

Todo persona que venda o empaque frutas y vegetales reglamentada, sin proteccion, dentro de la zona de cuarentena comete una infraccion y puede ser sometida a una multa de $500.00 y a 6 meses de carcel. Tambien, se la decomisara la fruta inmediatamente.

[SAMPLE OF LETTER TO CHAIN STORE MANAGEMENT]

To: CHAIN STORE MANAGEMENT

From: _____
Agricultural Commissioner/
Sealer of Weights and Measures

Dear Sir or Madam:

On _____, _____ fruit flies were found in _____County. In response, a quarantine was declared by the United States Department of Agriculture, the California Department of Food and Agriculture and your county agricultural commissioner (see enclosed quarantine map). Your corporation/company/business has one or more stores within the quarantine area. In order to prevent the spread of this exotic insect pest, we need your cooperation throughout the duration of the quarantine. The quarantine is expected to last through _____.

Enclosed please find a Compliance Agreement for Retail/Wholesale Fruit Sellers, located within a state/federal fruit fly quarantine. Please read, sign and return it to our Regulatory Section as soon as possible. Many of your store or produce managers have already been contacted and have signed compliance agreements for this or other current fly quarantines. Those who have not will be contacted as soon as possible by our regulatory officers. We ask that you sign as well, so that your management teams can develop and implement a standard, comprehensive approach to maintaining compliance at individual stores. With your response please enclose a list of all your stores that are within the quarantine boundaries.

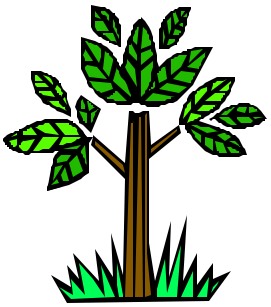
We realize that some of your stores may have unique circumstances that could potentially complicate quarantine regulation compliance requirements. Our field officers will assist you in bringing each store into compliance at minimum expense and with minimal disruption of your business activities. If you have any questions, please call our Regulatory Section.

Thank you,

_____
Regulatory Section Leader

Enclosures

(English Language Handout)



OFFICIAL NOTICE

YARD MAINTENANCE WORKERS, GARDENERS AND LANDSCAPERS

From: _____
Agricultural Commissioner/
Sealer of Weights and Measures

An agricultural quarantine has been declared in certain areas (see attached map) within the County of _____ for _____ fruit flies.

Moving fruit that may contain fruit fly eggs or maggots (larvae) is the most common way for infestations to spread. Project officials want you to know the special quarantine requirements on the movement and disposal of untreated, unprocessed backyard or homegrown fruits and vegetables.

Home-grown fruits and vegetables (see attached list) and soil from the area within the drip line of fruit bearing plants or trees must be disposed of properly. These fruits or vegetables must be placed in plastic bags and left for curbside pickup or transported directly to a commercial landfill. Other methods of disposal are not approved. Foliage and other plant debris may be disposed of as you see fit after all fruits or vegetables have been stripped. Plant debris may not be taken home or given away.

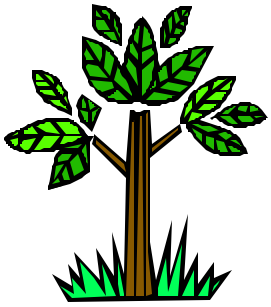
Regulatory officers are in the quarantine area notifying homeowners and businesses of these quarantine requirements. Regulatory officers also enforce the quarantine requirements. These officers can supply additional information about the quarantine and will advise you of compliance alternatives.

Failure to comply with these requirements can result in civil penalties of $500.00 for a first offense (California Food and Agriculture Code, Section _____).

If you have questions about quarantine requirements, please call the Project Regulatory office at (___) ___-____. Your help is required and your cooperation is greatly appreciated.

(Enclosures)

(Spanish Language Handout)



AVISO OFICIAL

A: Trabajadores En Mantenimiento De Jardines, Jardineros y Paisajistas

De: Proyecto Cooperative de la Mosca _____ de la Fruta

En lo referente a last Moscas _____ de la Fruta se han declarado cuarentenas agricolas en ciertas zonas (vea el mapa que se adjuntan) dentro del condado de _____.

La forma más común para propagar las infestaciones es mover la fruta que pueda contener huevecillos o gusanos de la mosca de la fruta. Los funcionarios del proyecto desean informarle acerca de los requisitos especiales para la cuarentena en lo referente al movimiento y deschecho de frutas y verdures cultivadas en la huerta o en el hogar.

Hay que desechar debidamente las frutas y las verdures cultivadas en el hogar (lista adjunta) y la tierra de la zona dentro de la linea de condensado de árboles frutales. Estas frutas o verdures se deben poner dentro de bolsas de plástico y dejarias al borde del andén para su recolección, o se deben llevar directamenta a un relleno de tierra comercial. No hay otros métodos de desecho aprobados. Las hojas y demás escombros de las plantas se pueden desechar de la forma que a usted le parezca, después de haber removido todas las frutas y verdures. No se deben mezclar los escombros de las plantas con las frutas o verdures. Las frutas y las verdures cultivadas en su casa no se pueden llevar al hogar ni regalar.

Se encuentran en la zona de cuarentena funcionarios reguladores, informando a los dueños de casa y a los comerciantes acerca de estos (requisitos de cuarentena. Los funcionarios reguladores también hacen valer los requisitos de cuarentena. Estos funcionarios le pueden proporcionar información adicional acerca de la cuarentena y le darán alternatives para su cumplimiento.

El hecho de no cumplir con estos requisitos podría resultar en multas civiles de hasta $500.00 por la primera infracción (Código de California sobre Alimentos y Agricultura, Seccion _____).

Si tiene preguntas acerca de los requisitos de cuarentena, por favor llame a la oficina Reguladora del Proyecto al numero ( )_____. Agradecemos mucho su ayuda.

Cooperative _____ Fruit Fly Project

Regulating Passengers with FFHM during the _____Fruit Fly Quarantine at the _____Airport

California Code of Regulations _____
& Code of Federal Regulations Part 301

- No home-grown fruit fly host material (FFHM) may leave the quarantine area unless it is in transit through the quarantine area and is accompanied by proof of origin*
- A sales receipt must accompany retail-size purchases of FFHM from a commercial retail outlet or they cannot leave the quarantine area.
- Retail or wholesale cases of FFHM commercially grown and packed, if unopened, may be released for unrestricted movement.
- Passengers may consume fruit inside the quarantine area before passing by amnesty bins while waiting for their flights. However, regulatory officers should not recommend or encourage this since it makes control of host material more difficult and time consuming.
- Passengers may not possess FFHM, which is in violation of quarantine laws on the gate side of the amnesty bins; only fruit purchased at gate shops is permitted in this area.
- FFHM may, at the request of the departing passenger, and the discretion of the regulatory officer, be given to persons accompanying the departing passenger(s), for immediate removal from airport property.

*If a passenger is flying from outside the quarantine area with FFHM and in transit through the airport, planning to connect to another flight, she or he must have proof of origin, such as airline tickets, for host material to be released for the next leg of the trip.

Airport Procedural Guidelines To The _____Fruit Fly Quarantine

(CCR. 340, 7 CFR, PART 301)

- FFHM items, which are seized, may not proceed beyond the security checkpoint.
- A regulatory officer will collect seized fruit for disposal.
- Security personnel will be asked to refer incidental finds of FFHM to regulatory officers.
- Passengers may be allowed to consume FFHM at the approach to the security checkpoint, but not beyond.
- Approved or commercial FFHM may proceed to Hawaii only at baggage check-in. Hand-carried FFHM at the security checkpoints is to be seized.
- All suspect baggage and boxes are subject to inspection.
- Passengers in transit must have airline tickets or reservations listing flight origin and destination.
- Seizures should be double-bagged and tied with quarantine tape, and brought to a site for safeguarding until disposal.
- Fruit purchased at gateway shops must be accompanied by a receipt, or is subject to seizure.

All questions pertaining to FFHM are to be answered by a project regulatory officer, not an airline or security employee.

Cooperative_____Fruit Fly Project Quarantine:

Frequently Asked Questions Regarding Regulatory Situations At The _____ Airport

Q: You are presented with two bulk bags of host material, one unlabeled and the other marked with the name of a commercial grower or marketer. The passenger does not have a receipt as proof of purchase from a commercial retail establishment. What action do you take?

A: The commodity must not leave the quarantine area. The passenger must either return the fruit to a companion who is not departing on a flight, or abandon the fruit to the project. Without a receipt, the fruit may have been obtained from a home source or in the case of the commercial product, may have been purchased from a street vendor and not properly safeguarded to prevent exposure to pests.

Q: What action do you take when the passenger provides a receipt for host material from a commercial retail establishment as proof of purchase?

A: Since these establishments are under project compliance and was safeguarded, the fruit may remain in the passenger's possession.

Q: If the passenger has unopened, commercially packaged cases of FFHM, can you release it?

A: Yes. Commercially grown material is treated to prevent infestation, and most packers are located outside of the quarantine area. If the case is unopened or unpacked, re-infestation will not have occurred.

Q: The passenger, when told that he cannot bring his fruit on his departing flight, asks if he or she can eat it**.**

A: Since there is no law against possessing FFHM inside the quarantine area, you may agree to this. However, monitor the situation to assure that all fruit is consumed, placed in amnesty bins, or given to a project officer, by revisiting the passenger at the departure gate to see if they have complied.

Q: With the exception of fruit purchased at gate restaurants, what is the consequence of transporting the beyond the amnesty bins at the departure gate?

A: It is a violation to possess host material in a quarantine situation in the area adjacent to the departure gates and beyond the amnesty bins. At this point, the passenger must comply with quarantine law and surrender the host material to the regulatory officer.

Q: A Passenger asks if he may donate the FFHM not qualifying for transport, to the person who accompanied him to the airport - is this acceptable?

A: If the project officer is confident that the material will remain in the quarantine area after placement in the vehicle, permission may be granted.

Q: Can host material, having arrived from a flight from outside the quarantine area, transit to a connecting flight, if passenger has proof of origin, such as a train ticket?

A: Yes. Host material was purchased from outside the quarantine area and there is no risk of pest infestation in the terminal.

Attention: Departing Passengers

Do you know…

You are traveling through an area under quarantine for the _____fruit fly. This fruit fly is a destructive pest, attacking several economically important hosts. A method by which this pest can be spread is by human transportation of homegrown produce to other areas.

Fresh fruit and vegetables may contain eggs and larvae (maggots) of this pest. Fruit flies deposit their eggs underneath the skin of the fruit and several females may attack a single fruit, resulting in the development of up to 100 maggots.

Your cooperation is needed to help prevent further spread of this pest. You can help by not transporting fresh fruit or vegetables outside the quarantine area. If you are now carrying produce in your personal baggage or luggage, we ask that you dispose of it by placing it in the amnesty bins near security checkpoints in each terminal. We also have roving inspectors monitoring each terminal for compliance.

If you have fruits and vegetables at home that you want to share with friends or relatives, we ask only that you process it first. Can it, freeze it, juice it, bake with it, or dehydrate it. By moving raw, uncooked fruit, you may be at risk for transporting fruit flies. If you have excess fruit at home and no one to whom to give it, please secure it in a sturdy plastic bag for garbage pickup and disposal.

This exotic fruit fly does not normally occur in California. It may be carried in by commerce or through the mails from other parts of the world where this pest is established. If this fruit fly becomes established in California home gardens or in commercial orchards, the following results could occur:

-- maggot-infested fruit
-- higher produce costs to the consumer
-- increased use of pesticides
-- quarantines on most California-grown produce
-- foreign trade embargos
-- interruption in the food supply for fruit and vegetables

We enjoy the finest quality of produce available in the world. Please do not spoil it by allowing exotic fruit flies to infest our State.

Thank You For Your Cooperation!

Cooperative _____Fruit Fly Project

Attention Agents Accepting Baggage

Do You Know…

_____ Airport is located in an area in which a federal and state quarantine has been established for the _____fruit fly, a serious exotic pest of numerous fruits and vegetables. The primary was this pest if spread is through movement of infested fruits and vegetables.

By law, no _____host fruits and vegetables may be moved or transported out of the quarantine area. This includes all homegrown fruits and vegetables. In additional, commercially grown host fruits and vegetables obtained from retail establishments may not be transported out of the quarantine area unless accompanied by a sales slip showing that purchase was made from a commercial retail establishment, or if the produce is commercially packed in the original and unopened container.

You Can Help…

We need your help in halting the spread of this serious pest. Air transport is a very efficient method of travel, but unfortunately it also presents a very real hazard of spreading this pest to other parts of the country via an innocent-looking piece of infested fruit.

We are seeking your help by asking that no _____ Fruit Fly Host Fruits or Vegetables be accepted in Carry-On Passenger Baggage or Checked Luggage unless accompanied by a Sales Slip or still packed in the original, unopened Container.

Any host material that has been repacked or is carried loose in plastic bags, paper sacks, etc. through the quarantine area must be rejected and should be deposited in amnesty bins available in the terminals, or in other receptacles intended for this purpose. All host material placed in the garbage receptacles is quarantined material and is prohibited from being removed for personal use or consumption.

We have placed signs in the terminal informing persons passing through security checkpoints of the quarantine restrictions. Marked containers (amnesty) bins have been placed at these departure areas for depositing quarantined materials. Project regulatory staff monitors each terminal for compliance, querying passengers and looking for prohibited items.

If you need assistance or would like more details, please contact the Project at:

_____

_____

Attention: Departure Crew Personnel

Do You Know…

_____International airport is located in an area in which a federal and state quarantine has been established for the _____fruit fly, a serious exotic pest of numerous fruits and vegetables.

One of the major ways in, which this pest is spread, is through the movement of infested backyard fruit and vegetables.

The quarantine specifically prohibits the movement of homegrown backyard fruit from the quarantine area, Title 7 Code of Federal Regulations, part 301 and the California Code of Regulations, Section _____. We ask that no fruit or vegetables be accepted in carry-on or checked baggage.

We will have regulatory officers monitoring terminals for compliance. Signs will be posted near departure security checkpoints notifying the public of the quarantine restrictions and containers will be placed near these points for disposal of quarantine fruits and vegetables.

Please help us- we are seeking your cooperation in halting the spread of this serious pest to other parts of California and the U.S. All it takes is one piece of infested fruit to begin a new infestation.

For further information please contact the project at the following numbers:
_____

State of California
Department of Food and Agriculture
_____ St./Ave./Blvd.
_____ CA, _____
Phone: (____) _____ - _____ Fax: (____) _____ - _____

Notice of Violation: _____ Fruit Fly Quarantine Regulations

Compliance Agreement No.: _____ Date: ____/____/200__
Violation Number: _____ Time: ____ : ____ AM / PM
Establishment Name: _____ Phone: (____) _____ - _____
Street Address: _____ City: _____ County: _____
State: _____ Zip: _____

You are hereby notified that the following described act, vehicle, article or thing fails to conform to the provisions of the Code of Federal Regulations, the California Food and Agricultural Code, and/or Title 3 of the California Administrative Code.

Section(s) Violated: _____ 7 CFR 301.____ (Code of Federal Regulations)
_____ Section 5306(a) (California Food and Agricultural Code)
_____ CCR _____ (California Code of Regulations)
Seizure Authority: _____ Commodity seized as per Food and Agricultural Section 6461.5
Description and Nature of Violations: _____

It is unlawful to move or dispose of any article or thing, or to operate any equipment or vehicle in violation of the above listed section(s), without written permission from an authorized enforcing officer.

I agree to "safeguard all _____ fruit fly host material while within the _____ fruit fly quarantine area."

Name of Person Notified: _____ Phone: (____) _____ - _____
Signature of Person Notified: _____ Date: ____/____/____
Signature of Project Officer: _____ Date: ____/____/____

Disposition of _____ Fruit Fly Host Material: _____

Hold Notice Issued ? (circle): Yes No

Original: Project *Copy:* Establishment

Sample Letter of Non-selection of a Candidate for a Project Job Position

Cooperative _____Fruit Fly Project _____
_____COUNTY - CDFA – USDA

Month/Day/Year

Ms. Sarah Titus Kappa-Tata
5600 Rickenbacker Road, Apt. 7
Bell, California 90201

Dear Sarah:

Thank you for taking the time to interview for Agricultural Aide position(s) in the Regulatory Section of the Cooperative _____Fruit Fly Project.

I am sorry we will not be able to offer you a position. The individual(s) selected more closely matched our needs at this time.

You were one of many qualified applicants we interviewed, making it a difficult choice for us. This decision should in no way be considered a reflection on your abilities.

Your application will be kept on file for one year, during which time it may be considered for future opening at the Project.

I wish you luck in your job search.

Sincerely,

Mel A. Thion
Supervising Officer
Regulatory Section

Cc: File copy

Sample Press Release:
Notice to the Public in the _____ Area

As of mm/dd/yy, # _____ fruit flies (*use acronym here*) have been trapped in the _____ area of _____County. Finding that number of flies in one area requires federal, state and county departments of agriculture to take quarantine action. The quarantine area will extend for four and one half miles in all directions from the general fly find site and its borders will involve the _____ Freeway in the north, _____Avenue in the east, _____ Blvd. in the south, and _____Street in the west. The total quarantine area is approximately ___square miles. The host fruit list includes such crops as ____, ____, _____, etc., and other fruits.

Homeowners living inside the quarantine area who have backyard fruit trees or vegetables are urged not to give away any of their fresh, homegrown produce, carry it off their property or ship it through the mails. Travelers flying out of the _____ Airport will be screened to ensure they are not carrying fresh fruits or vegetables in their luggage. California Department of Food and Agriculture (CDFA) dog teams will be working at the airport terminals sniffing passenger carry-on bags and luggage for prohibited fruits, vegetables or plants.

The ____ host fruit list includes more than XX crops, such as XX, XX and XX. Fruits or vegetables which are a food source (host material) for XXX fly maggots, must be processed after harvest, before the produce can leave your property. In addition, any host fruit plants homeowners are growing in the Ontario-Chino quarantine area may not be moved from your property, as the soil in the pots may contain one or more life stages of XX fruit flies.

A quarantine is being established at this time and fresh, unprocessed host material may not move from your property

Fresh fruits and vegetables that are backyard or homegrown may not move from any homeowner's property in the quarantine area, unless these items have been processed (i.e., baked, frozen, canned, pickled, chopped, sliced, completely dried or dehydrated, ground up, or liquefied, etc.).

Check first with XX Fruit Fly Project staff to determine if a particular method of fruit or vegetables processing satisfies the quarantine restrictions.

If no more flies are found after a period of time based on three life cycles of the XX fruit fly, the Project staff will officially notify you that these restrictions have ended.

Project staff is being assigned at this time. Growers may call the toll-free number, 1-866-777-PEST, if they have any questions. A local phone number will be available shortly.

Office location: Mailing address:

--- List Office and Mailing Address specifics ---

Cooperative _____ Fruit Fly Project
_____County/CDFA/USDA

_____/_____/ 200__

End of Quarantine Notice

This letter is to advise you that the Cooperative _____ Fruit Fly Quarantine has ended. Eradication of the _____ fruit fly has been declared and as of 12:00 midnight _____ __, 200_, all quarantine regulations have been lifted and are no longer being enforced.

This letter will serve to cancel all **compliance agreements**, **hold notices** and **cooperative agreements** between your establishment and the _____ Cooperative Fruit Fly Project, effective _____/_____/200__.

The detection, quarantine and eradication efforts have been a cooperative project between the _____ County Office of the Agricultural Commissioner, the California Department of Food and Agriculture, and the United States Department of Agriculture.

We sincerely appreciate the cooperation you have shown our agricultural inspectors, as they worked to prevent the spread of this potentially devastating agricultural pest.

If you have any further questions after _____/_____/200___, please contact the California Department of Food and Agriculture office at (___) _____ - _____.

_____	_____
First Name Last Name	First Name Last Name
CDFA/Project Supervisor	USDA/Project Supervisor

Section 5: Appendix E – Checklists

Project Truck Equipment Checklist	Field File Box Checklist
Cell Phone, Pager	Carbon Paper
Flashlight	Graph Paper
Large and Small Poly Bags	Notebook Paper
First Aid Kit	Ruler
Fire Extinguisher	Compass
Plastic Disposable Shoe Covers	Pencils, Pens (blue ink), Highlighters
Disposable Coveralls	Compliance Agreements (with Exhibits)
Latex Gloves	Fruit Fly Host List
Clean Wipes	Quarantine Boundary Map
Paper Towels	Quarantine General Information Document
Glass/Plastic Vials and Collection Tray	Treatment Schedule
Alcohol (Spray Bottle and Storage Bottle)	Grower Information Document
Water (1 gallon Container)	Checklist for each Type of Regulated Establishment
Fruit Cutting Knife	Pesticide Calculation Sheet
pH Meter and Beaker	Spray Interval Schedule
Host/Non-Host Material ID Charts/Booklet	Copies of Relevant SLNs and Section 18's
Wind Gauge	Pesticide Source List (Local Suppliers)
Hand Lens	List of Phone Numbers/Addresses for Local Hospitals
Paperwork Field File Box (separate list for contents)	List of Phone Numbers/Addresses for Local Law Enforcement
Dye Cards (size 18" X 24")	Project Contact Numbers (County, State and Federal)
Thomas Brothers Maps/Guidebook for area	
Eye Goggles	
Respirator/Mask	
Compass (Grove Mapping Aid)	
Clipboard	
GPS Unit	

Risk Assessment Concepts

The information below is offered to assist you in understanding the process by which relative FFHM pest risk is determined, by presenting the factors that lead to the imposition of a quarantine. **It is for instructional purposes only, and not intended for field use.**

For each pair of responses below (CIRCLE)

the one that best describes the situation you are currently investigating –

IS THE ESTABLISHMENT:

Q- *Within ½ mile of a Fly Find Core Area?*	Yes	or	No
Q- *2 to 3 miles from the Quarantine Boundary?*	Yes	or	No
Q- *One that potentially has/sells Homegrown FFHM?*	Yes	or	No
Q- *In a Residential (R) or Commercial (C) Area?*	R	or	C
Q- *A Wholesale (W) or Retail (R) Business?*	W	or	R
Q- *Doing Business during Time Period from June through November?*	Yes	or	No

Scoring:

The greater the number of "Yes" answers you get for the questions on the left, the greater the likelihood that a particular establishment you are evaluating presents some **potential**, if not actual, risk of spreading a fruit fly infestation.

For a more statistical method of risk assessment, regulatory biologists will multiply the numerical values they've developed for each of the four probabilities described below, and arrive at an overall calculated risk assessment of infested FFHM leaving the quarantine area:

Probability that an adult fly with eggs is in the area	**X**	Probability of FFHM being exposed to this fly	**X**	Probability of fly infesting this FFHM	**X**	Probability of FFHM leaving this area	**=**	**OVERALL RISK** (based on maximum of 100%)

Comments:
_____
_____
_____
_____

NURSERY INSPECTION CHECKLIST	
NURSERY NAME: _____ DATE:_____ NURSERY ADDRESS: _____ PROJECT INSPECTOR(S): _____	
	Circle Yes or No
A Compliance Agreement has been issued and understood?	Yes or No
Nursery grounds have been walked and checked for susceptible host material?	Yes or No
Nursery grounds have been mapped?	Yes or No
Have all drip lines been cleared of nursery stock?	Yes or No
Verify count and proper flagging and tagging of any (host material) nursery stock on **temporary** hold?	Yes or No
Verify count and proper flagging and tagging of any (host material) nursery stock on **permanent** hold?	Yes or No
Do nursery grounds require soil drench treatment?	Yes or No
Has contact person in charge been informed about host material nursery stock that requires fruit stripping?	Yes or No
Is any previously stripped host material ready for pick up and disposal?	Yes or No
Has any new, susceptible (host material) nursery stock arrived?	Yes or No
If answer to preceding question is yes, does nursery have receipts showing date of arrival?	Yes or No
Additional Comments:	

*** [protocol is, if (host material) nursery stock has been on property for 24 hours or less, host material only needs to be stripped. If more than 24 hours has passed, nursery stock needs to be placed on hold for a soil drench and susceptible host material stripped from nursery stock.]**

Supervisor's Checklist	
Inspection Date:	
Inspector's Name:	
Grower's Name:	Appointment Time:
Treatment Site Address:	
Did the Inspector arrive prior to treatment schedule time?	
Was the Inspector neat and presentable?	
Was the paperwork accurate and legible?	
Did the Inspector supervise mixing of chemicals?	
Was it necessary to update chemical amounts?	
If necessary, were the chemical amounts updated?	
Has the grove been inspected today?	
Interior/Exterior?	
If Grower/Grove Manager is available:	
Are the Inspectors punctual?	
Are the Inspectors courteous and helpful?	
Do you have any comments or concerns at this time?	

Cooperative _____ Fruit Fly Project
_____ Rd./Ave./Blvd.
_____, CA _____

Checklist for Packing Houses: Clearing Fruit Grown *within* a Quarantine Area and *outside* a Quarantine Area

Date: _____/_____/200__ **Inspector(s):_____**

Name of Packing House: _____	**Location of Packing House:** **Inside** □ **Outside** □
Street Address: _____ _____,CA _____	
Upon Arrival at Packing House:	
1. Is proof of ownership of the fruit readily available (i.e., field receipts, valid permits or certificates, etc.?) If proof provided, attach copies to this form.	**Yes** □ **No** □
2. Is fruit grown inside or outside the quarantine area(s)?	**Yes** □ **No** □
3. Weight shown on permit/certificate/field receipt? or, Number of field bins? or, Actual weight recorded at Packing House?	**_____ Lbs.** **_____ Bins** **_____ Lbs.**
4. Can the origin of the fruit be verified?	**Yes** □ **No** □
5. Does the load have a **valid** permit or certificate (attach a copy to this document)	**Yes** □ **No** □
6. Has the load been transported in a safeguarded condition? Safeguarding includes: covering the entire load with a tarp or other barrier, filling the field bins no closer than 12 inches from the top of the bin, transporting between sunset and sunrise, and/or shipping in an enclosed conveyance or vehicle.	**Yes** □ **No** □
7. Do you need to safeguard the load and place it on HOLD while further investigation takes place (i.e., Does the grower need to be contacted?)?	**Yes** □ **No** □
8. Did you need to seize and destroy all the fruit?	**Yes** □ **No** □
After Fruit is Unloaded:	
9. Did you need to seize and destroy all the fruit?	**Yes** □ **No** □
10. Was packed fruit grown inside the quarantine area kept segregated from fruit grown outside the quarantine area?	**Yes** □ **No** □
11. Did fruit packed inside the quarantine area receive an identifying mark or label (e.g., "diamond" stamp)?	**Yes** □ **No** □
12. Did fruit grown in quarantine area, and packed outside quarantine area, receive the identifying mark or label (e.g., a "diamond" stamp) on each box?	**Yes** □ **No** □
Please list any additional comments or explanations on the back of this form	

ESTABLISHMENT or FACILITY NAME: _____DATE: _____

ADDRESS: _____

INSPECTOR(S):_____

Yes or No

_____Has Inspector explained regulations and restrictions of the exotic fruit fly quarantine?

_____Was Compliance Agreement signed and understood?

_____ Is fruit fly host material from commercial and/or backyard sources?

_____Have valid receipts been presented by establishment/facility?

Origin of Host Material:
(Check Appropriate Box)

☐ From sources located outside of an exotic fruit fly quarantine area

☐ From sources located inside of an exotic fruit fly quarantine area

☐ If from inside of an exotic fruit fly quarantine area, fruit fly host material has been treated (i.e., undergone bait treatment or fumigation, etc.)

_____ Does the establishment/facility have a loading/unloading area (either of these activities must be completed within 1 hr. of arrival/departure of fruit fly host material)?

_____ Is the establishment/facility performing any packing and/or sorting of fruit fly host material?

_____ If yes, are these activities being done in an enclosed area and/or is the fruit fly host material being kept safeguarded from possible infestation?

Methods that demonstrate safeguarding compliance for fruit fly host material (check all that apply):

_____ Front and rear doors of establishment/facility kept closed
_____ Doorways are protected via air curtains, commercial fans, plastic strips or screens
_____ Fruit fly host material is refrigerated (maintained at 58^{o}F or below) and/or safeguarded by screening or plastic shrink wrapping
_____ Culls, discarded material, and refuse containing fruit fly host material is always kept stored in sealed plastic bags or in covered containers and/or dumpsters, prior to disposal.

YARD MAINTENANCE INSPECTIONS

NAME OF BUSINESS: _____
DATE:_____

INSPECTOR(S):_____

YES or NO

_____ Explained exotic fruit fly quarantine regulations and restrictions and determined they were understood?

_____ Signed Compliance Agreement, and issued all relevant information (i.e., host list, quarantine map and exotic fruit fly brochure)?

_____ Issued a sticker displaying the Compliance Agreement number (to be placed on the inside, lower left front windshield the vehicle)?

_____ Is FFHM being, or has it been recently, removed from premises/properties located with the exotic fruit fly quarantine boundaries?

_____ If yes, was it disposed of properly (i.e., bagged and transported by truck to a landfill or approved recycling/composting facility)?

_____ If no, then seize all FFHM not properly bagged or disposed of, explain regulatory violation(s), and warn that a Notice of Violation will be issued following the next incident.

_____ Does this business grow any plants themselves that are utilized for landscaping purposes?

_____ If yes, have them describe their operation and determine if it's within the quarantine boundaries, and whether it will require a separate compliance agreement for nursery stock.

Resource Guide

***Federal*: United States Department of Agriculture/Animal and Plant Health Inspection Service/ Plant Protection and Quarantine (USDA/APHIS/PPQ) Emergency Programs Planning and Coordination Staff (EPPC)**

Name	Program	Telephone #
Bill Abel	PPQ Officer, Shafter, CA	(661) 861-4131
Dan Hamon	PPQ, Port Director, Sacramento, CA	(916) 857-6260
Larry Hawkins	PPQ, State Plant Health Director's Office, Sacramento, CA	(916) 857-6241
Mike Hennessey	Supervisory PPQ Officer, Bell, CA	(323) 881-0040
Sandy Jordan	Regional Program Manager, Fort Collins, CO	(970) 494-2569
Terry McGovern	PPQ, Tampa, FL	(813) 228-2172
Mike Stephan,	EPPC, Riverdale, MD	(301) 734-8247
Bob Vlasik	PPQ, WIFF, Harlingen, TX	(956) 427-8527
Helene Wright	PPQ, State Plant Health Director, Sacramento, CA	(916) 857-6241

Federal Agency Web Sites	
USDA/APHIS/PPQ	http://www.aphis.usda.gov/ppq/
Title 7 Code of Federal Regulations –Subtitle B, Chapter 3 –APHIS/USDA Regulations	http://www.access.gpo.gov/nara/cfr/waisidx_98/7cfrv5_98.html
Carambola Fruit Fly	http://www.aphis.usda.gov/ppd/es/is/carambola.pdf

***State:* California Contact Numbers For Fruit Fly Quarantines**

Agency or Association	Phone	Fax
CDFA/ Public Affairs Office	(916) 654-0462	(916) 657-4240
CDFA/ Pest Exclusion Branch/ Interior Program	(916) 654-0312	(916) 654-0986
CDFA/Pest Detection/Emergency Projects	(916) 654-1211	(916) 654-0555
California Department of Pesticide Regulation,	(916) 445-4400	(916) 324-1719
California Agricultural Commissioners and Sealers Association	(530) 538-7381	(530) 538-7594
California Farm Bureau Federation	(916) 561-5500	(916) 561-5699
California Certified Organic Farmers	(831) 423-2263	(831) 423-4528
California Association of Nurserymen	(916) 928-3900	(916) 567-0505
California Grape and Tree Fruit League	(559) 226-6330	(559) 222-8326
California Tree Fruit Agreement	(559) 638-8260	(559) 638-8842
California Citrus Quality Council	(530) 885-1894	(530) 885-1546
California Avocado Commission	(714) 558-6761	(714) 641-7024

California Web Sites	
California Department of Food and Agriculture (CDFA) Homepage	**http://www.cdfa.ca.gov**
CDFA Fruit Fly Information	**http://www.cdfa.ca.gov/fruitfly**
CDFA's Pest Exclusion Branch Homepage	**http://www.cdfa.ca.gov/phpps/pe**
California Department of Pesticide Regulation	**http://www.cdpr.ca.gov/**
Current Section 18 Emergency Exemptions	**http://www.cdpr.ca.gov/docs/sec18/sect18s.htm**
CDFA/Pest Exclusion Plant Quarantine Manual	**http://www.cdfa.ca.gov/**
California Code of Regulations	**http://ccr.oal.ca.gov/**
California Food and Agricultural Code	**http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=fac**

Additional World Wide Web Sites	
Carambola Fruit Fly	**http://www.carambolafly.com/**
Pacific Fruit Fly Web	**http://www.pacifly.org/**
Exotic Fruit Fly Images	**http://www.agric.wa.gov.au:7000/Ento/Surveillance/Fruit%20fly.html#Appendix 4**
Medfly Host Lists	**http://gnv.ifas.ufl.edu/%7Eentweb/Host.htm**
Organic Materials Review Institute	**http://www.omri.org/**

GENERAL SUBJECT INDEX

Add Any Additional Subjects Below:

Comment Sheet: *Exotic* Fruit Fly Regulatory Response Manual

Description of problem(s) (errors, inconsistencies, missing, or insufficient information, etc.)

Description of improvements or recommended changes (add attachments if necessary)

Reasons for improvements or changes:

Date of Submission: _____
Name (optional): _____
Address: _____
_____
Phone/Fax: _____
E-mail: _____