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 Depending on an individual county's policy, if the grower currently has an out-of-date SLN or Section 18, it may be required that the most current SLN or Section 18 be issued.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 invasive 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 invasive 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 <u>all</u> 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 "Invasive 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 invasive 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 invasive 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 invasive 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

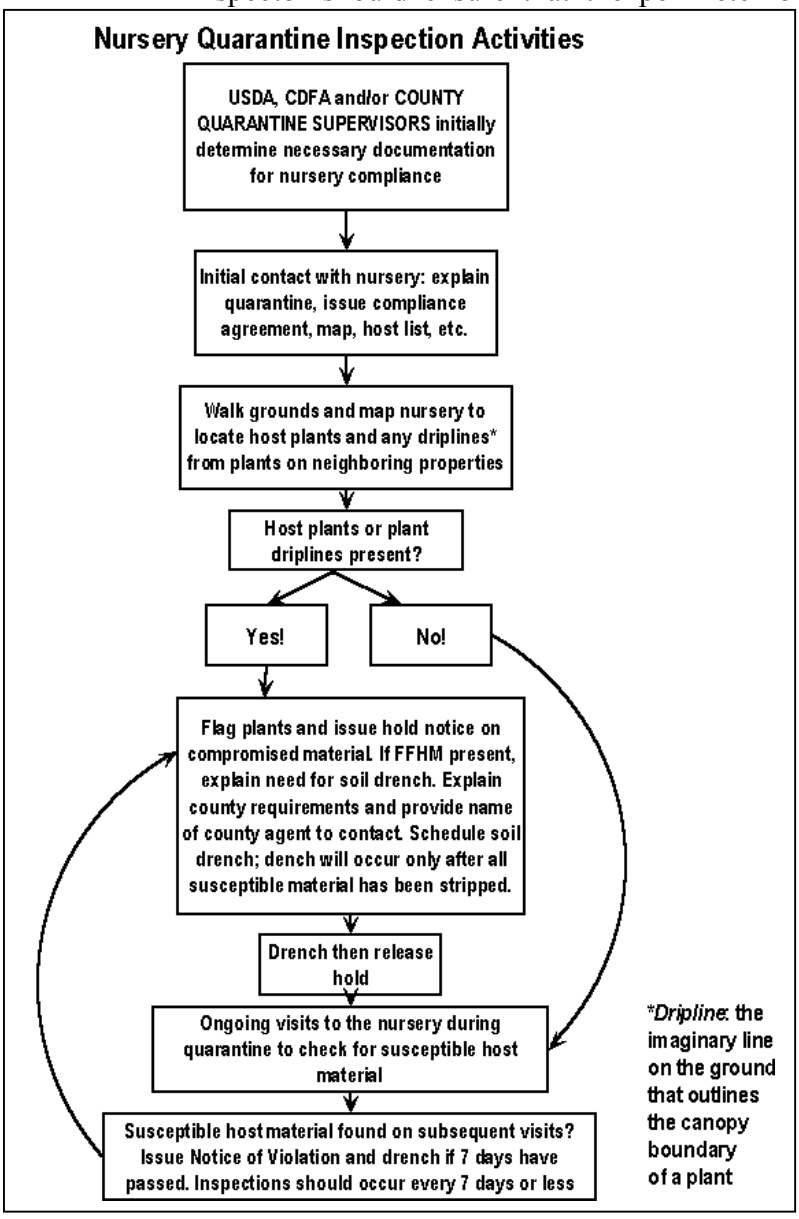
For regulatory purposes, a nursery is any wholesale or retail establishment that regularly offers potted plants, shrubs and trees, often bearing FFHM, for sale. Nurseries are regulated during an invasive fruit fly quarantine to prevent, both within and outside quarantine boundaries, the movement of eggs 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 invasive 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 invasive 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. Invasive 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 invasive 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 invasive 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)
- Invasive Fruit Fly Plant Quarantine Treatment Information (County Memo)
- Source List for malathion, NU-LURE and spinosad
- Host List
- Quarantine Map
- Invasive 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
    - Invasive 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

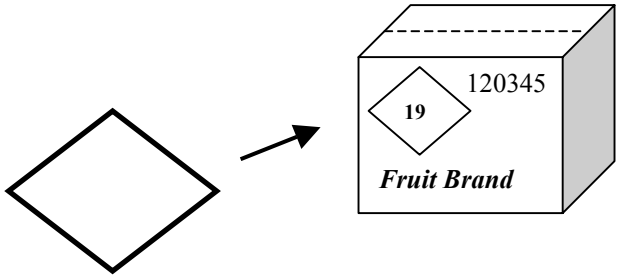
- Establish contact with management
- Spot check records to verify house not receiving from within quarantine.

Fruit Tracking System

This voluntary system can be implemented during invasive 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



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 invasive 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 invasive 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 invasive 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 invasive 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.

PASSED

SAMPLE

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AGRICULTURE

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 invasive 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 invasive fruit flies. To a fly these circumstances are ideal!

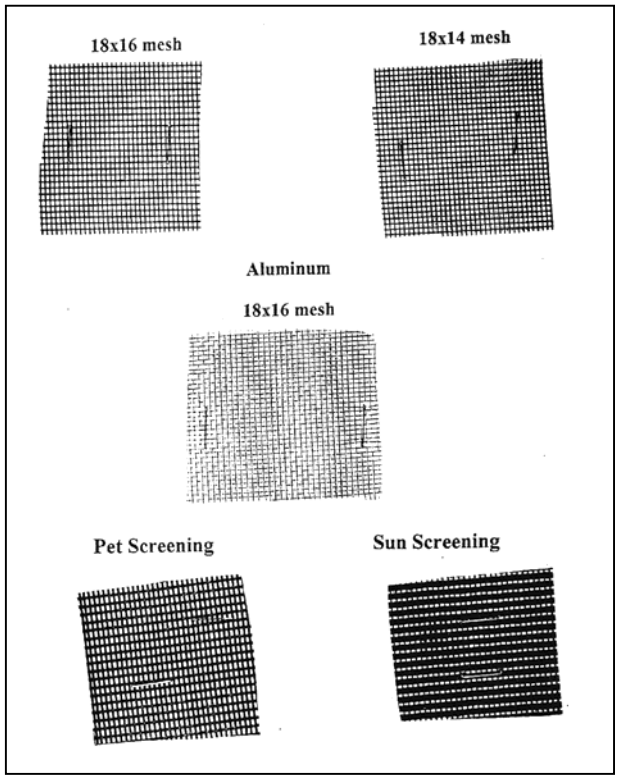
Having made these points, you should now understand that as a regulatory inspector, all such host material that an invasive fruit fly had access to becomes highly suspect as possibly infested. The adult fly does not necessarily have to alight directly on FFHM to infest it, more about this below when 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 invasive 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 invasive 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, invasive 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 invasive 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 invasive 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 invasive 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 invasive fruit fly infestations and serving the surrounding communities as an information resource.

Phytosanitary Invasive Fruit Fly Requirements and Export Summary

- All FFHM grown, produced or packed in any USDA/CDFA area under an invasive 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 invasive 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 invasive 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 invasive 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 invasive 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 invasive 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 invasive 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 invasive 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 invasive fruit fly project facility. A landfill under compliance can be utilized as the final destination for this FFHM waste and an invasive

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 invasive 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 invasive 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 invasive 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 invasive 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

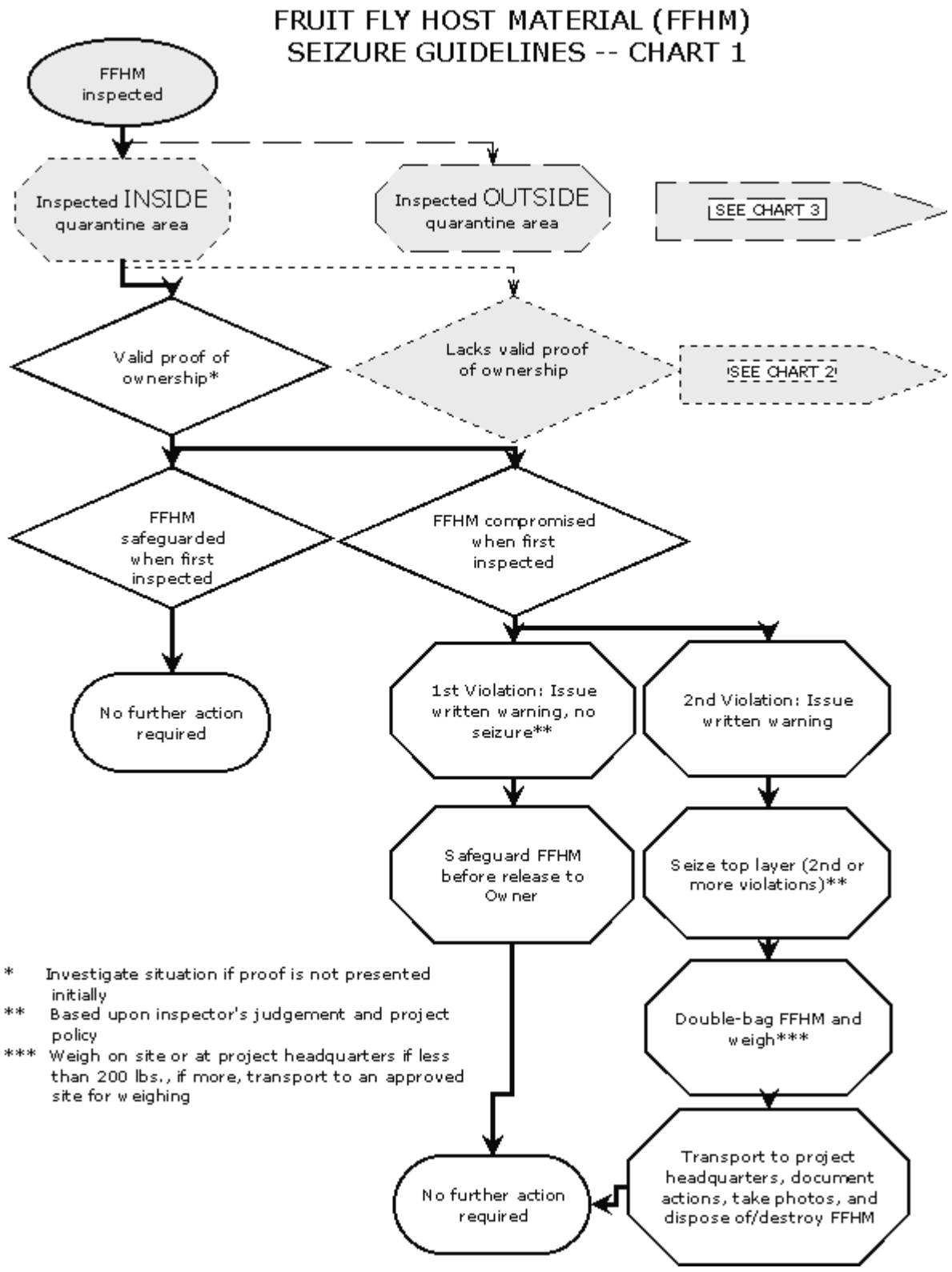
Table 2.1 Arrivals of Fruit at the Packing House

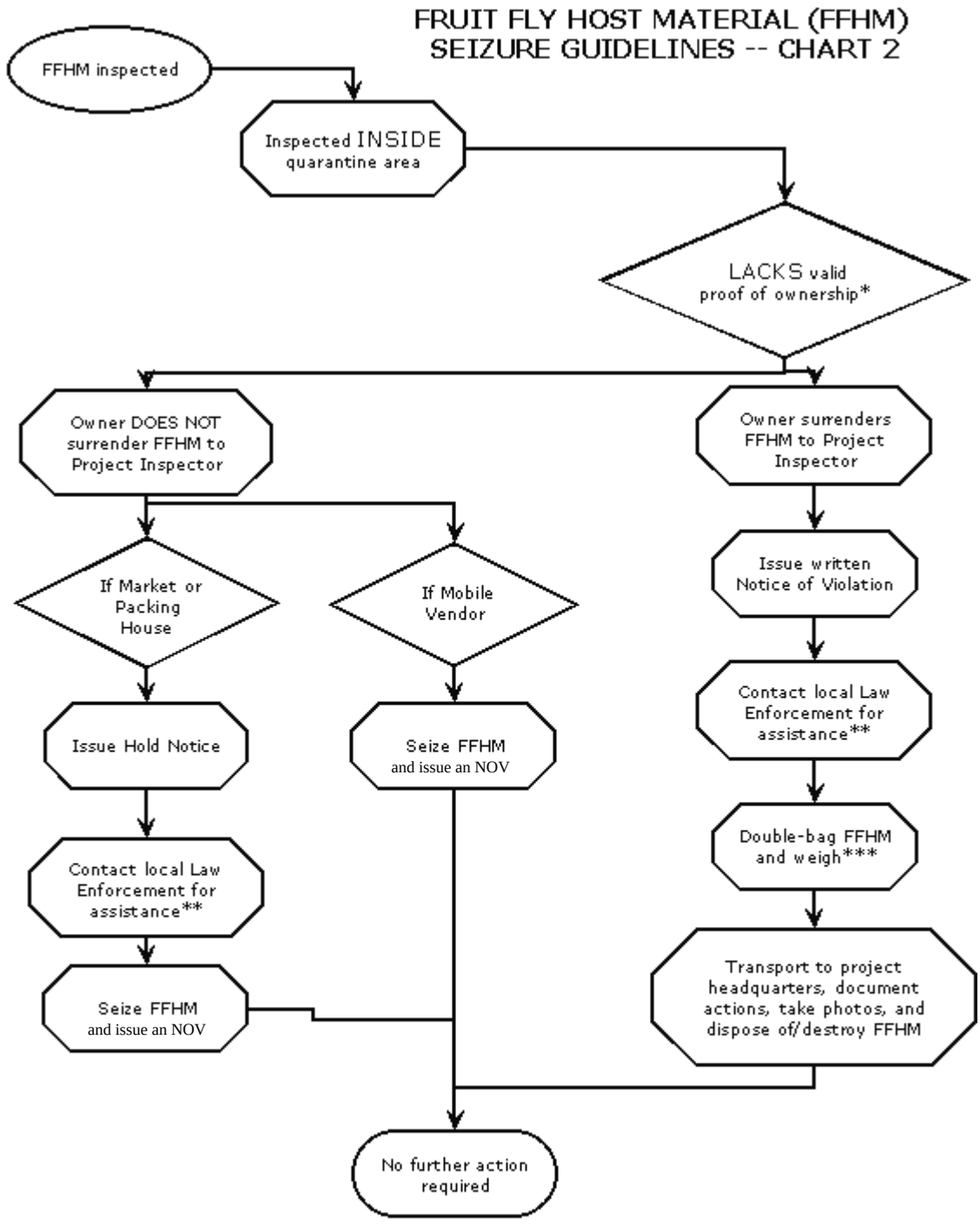
If the fruit originated from:	And:	And:	Then:	Authority:
Inside the quarantine area	There is a valid limited permit	Safeguard during transit occurred	Allow entry into the packing house	Cooperative fed/state eradication project
→	→	No safeguard during transit	Seize top layer and allow entry	
→	No valid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

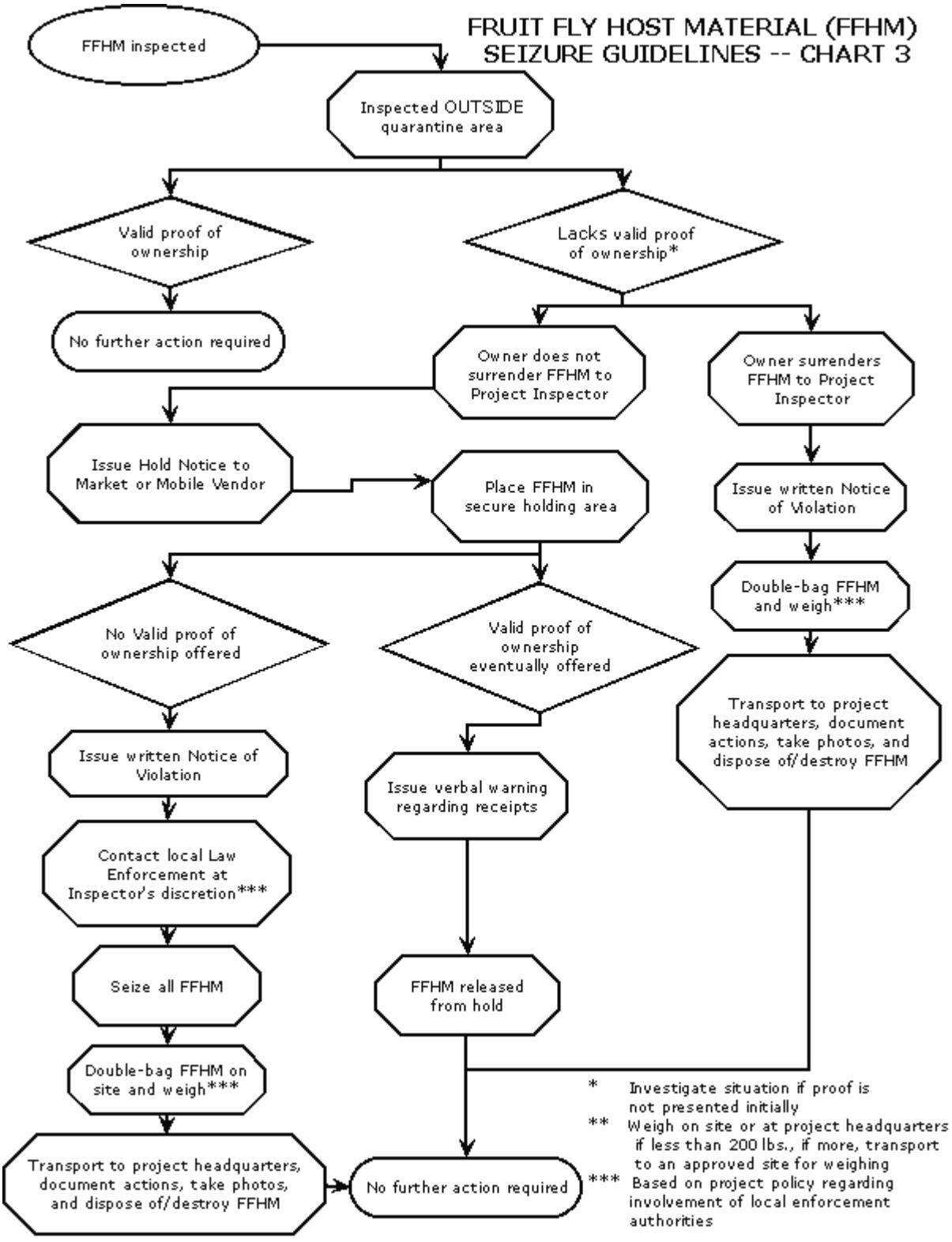
If packing house requests shipment outside the quarantine area:	And:	Then:	Authority:
⟶	Fruit was segregated during storage in the packing house	Use some type of county identification stamp (e.g., "diamond stamp") and ship	Cooperative fed/state eradication project
⟶	Fruit was commingled	Place hold on 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



* 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