

**SECTION III: INSPECTION PROCEDURES AND POLICIES**

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## 3.1 INTRODUCTION

Commodities are the basis of trade. It is the tendency of pests/diseases to associate with commodities as hitchhikers. Agricultural commodities are inspected to ensure that shipped commodities are free from unwanted pests and eligible for trade.

The “Terminal Inspection Act” of 1915, amended in 1936, allows states to inspect plants and plant products that are being shipped into their territories. The CDFA’s Pest Exclusion Program enforces state exterior and interior quarantines. The Program also enforces federal domestic, foreign, and territorial quarantines, and county restrictions. At air and maritime ports, agricultural officials from federal, state, and/or county inspect arriving aircraft, vessels, luggage and cargo following procedures outlined in a Memorandum of Understanding (MOU) between CDFA and the County Agricultural Commissioners. Shipments that are found to be in violation of quarantines and/or the Food and Agricultural Code are rejected, treated and released or destroyed.

Rapid transportation systems had made expediency be the norm. Agricultural commodities such as cut flowers and fruits, shipped from other states or countries that may be infested with exotic pests, can arrive fresh in California within hours. Such commodities are subject to agricultural quarantines. In order for the quarantine to be effective, the commodity must be held for agricultural inspection. A cooperative working relationship exists among federal (USDA), state (CDFA), and counties (CAC), working separate, complimentary or shared areas of responsibility. Generally, USDA focuses on foreign pests at international ports of entry, and foreign markets, while CDFA and CAC are more involved in interstate and intrastate exclusion activities/issues.

The CDFA’s pest exclusion and CAC network currently enforces 26 state exterior quarantines, 16 state interior quarantines, 23 federal domestic quarantines, as well as 8 county ordinances.

The CDFA Pest Exclusion Program is divided into Interior, Exterior, and Nursery/Seed Services Programs. The Interior Pest Exclusion Program enforces federal, foreign, and domestic plant pest quarantines as well as California state exterior and interior quarantines; and the county restrictions and ordinances. Exterior exclusion consists of 16 state border stations located at major highway points of entry throughout the state and inspect private and commercial vehicles. The Nursery and Seeds Services Program ensures high quality of planting material and fiber.

## 3.2 QUARANTINE PEST RATING SYSTEM

### 3.2.1 GENERAL PRINCIPLES (REVISED 7-21-10)

Section 403 of the California Food and Agricultural Code (FAC) mandates that “The department shall prevent the introduction and spread of injurious insect or animal pests, plant diseases, and noxious weeds.”

Section 5261 of the FAC requires that “The department shall develop and maintain a list of invasive pests that have a reasonable likelihood of entering California for which a detection, exclusion, eradication, control, or management action by the state might be appropriate. In developing the list, the department shall consider any invasive pests identified by the federal or state government for which a detection, exclusion, eradication, control, or management action might be undertaken”.

Section 6461 of the FAC states “It is unlawful to ship or transport any plant or any other thing into this state which is infested with any pest which has been listed, by the director, as detrimental to agriculture in this state. The director shall either establish and amend the list of pests by order, after notice and opportunity for written or oral comments, or through the adoption or amendment of quarantine regulations.”

Overall pest introduction risk and anticipated level of harm is the basis for determining what pest prevention activities are appropriate, at what level, and when and where those activities should be conducted. These statutory duties necessitate a pest policy which recognizes that organisms vary as to their probability for introduction, spread and the potential risk of harm these may pose to California's agriculture and environment.

1. Pest ratings are intended as aids to inform county agricultural commissioners and other interested persons as to a particular organism's environmental, agricultural and biological significance, as well as its importance to the wellbeing of the general public, as well as the action recommended by the Department to address it.
2. Each pest rating represents the Department's view of the statewide importance of the pest to the agricultural, horticultural, environmental, and public health interests of California. In some cases, local conditions may dictate more stringent action against the same pest in individual counties at the discretion of the county agricultural commissioner. Organisms that will not adversely impact these entities will not be rated.
3. It is the Department's policy to use the "Action Oriented Rating System." Pest ratings represent the Department's policy governing what action is to be taken consistent with existing statutes. This includes authority for:
  - a. Promulgation of quarantine, eradication, control, standards of cleanliness, and other regulations
  - b. Holding and inspection, establishing host-free, weed-free, and special pest control districts
  - c. Other regulatory activities
  - d.

### **3.2.2 ACTION ORIENTED RATING SYSTEM DEFINITIONS (REVISED 8-1-14)**

**"A"** A pest of known economic or environmental detriment and is either not known to be established in California or it is present in a limited distribution that allows for the possibility of eradication or successful containment.

A-rated pests are prohibited from entering the state because, by virtue of their rating, they have been placed on the Plant Health and Pest Prevention Services Director's list of organisms "detrimental to agriculture" in accordance with the FAC Sections 5261 and 6461. The only exception is for organisms accompanied by an approved CDFA or USDA live organism permit for contained exhibit or research purposes.

If found entering or established in the state, A-rated pests are subject to state (or commissioner when acting as a state agent) enforced action involving eradication, quarantine regulation, containment, rejection, or other holding action.

**"B"** A pest of known economic or environmental detriment and, if present in California, it is of limited distribution.

B-rated pests are eligible to enter the state if the receiving county has agreed to accept them. If found in the state, they are subject to state endorsed holding action and eradication only to provide for containment, as when found in a nursery. At the discretion of the individual county agricultural commissioner they are subject to eradication, containment, suppression, control, or other holding action.

**"C"** A pest of known economic or environmental detriment and, if present in California, it is usually widespread.

C-rated organisms are eligible to enter the state as long as the commodities with which they are associated conform to pest cleanliness standards when found in nursery stock shipments. If found in the state, they are subject to regulations designed to retard spread or to suppress at the discretion of the individual county agricultural commissioner. There is no state enforced action other than providing for pest cleanliness.

**“D”** An organism known to be of little or no economic or environmental detriment, to have an extremely low likelihood of weediness, or is known to be a parasite or predator. There is no state enforced action.

**“H”** A plant species found in a nursery that the identifier has reason to believe exhibits weedy characteristics.

H-rated organisms are subject to a hold notice being issued at the nursery, and any “Warning Hold Notices (008s) issued at an agricultural inspection station will include the rating. A state/county triage team will review the situation and propose a rating of A, B, C, or D within a 30 day time period after the identification has been made and an “H” has been assigned. An official “Pest Rating Advisory for Plants Sold as Nursery Stock” will be published. This rating will become permanent one year from the date of publication unless new information warrants a further review. For further details of this review process, see Pest Rating Advisory 1-2005.

**“N”** A sample received by the Plant Pest Diagnostics Laboratory which either (1) contains material of a non-biological nature or, (2) is composed of empty vials or other containers or, (3) contains non-target organisms found during a targeted survey or trapping program. There is no state enforced action other than resampling or additional survey at the discretion of the Director.

**“Q”** An organism or disorder suspected to be of economic or environmental detriment, but whose status is uncertain because of incomplete identification or inadequate information.

Temporary “A” action is required pending determination of a permanent rating. However, in the case of an established infestation and in the absence of evidence that the pest might qualify as A-rated, at the discretion of the Director the state may only be required to conduct surveys and to retard or prevent spread prior to assignment of a permanent rating of B, C, or D.

**“P”** Marked specimens which have been planted in trapping or survey programs by CDFA personnel for quality control purposes. There is no state enforced action.

**“S”** Sterile specimens that have been released and recovered as part of an eradication or suppression program using the sterile insect technique (SIT). There is no state enforced action.

**“T”** A sample whose damage is identified as being caused by abiotic factors, not a pest organism. Examples are (1) chemical damage or (2) mechanical damage or (3) environmental damage. There is no state enforced action.

**“U”** A sample which is suggestive of the presence of a pest organism, but which can not be definitively identified as such. Examples are (1) DNA is detected but the organism can not be cultured or (2) incomplete specimens that can not be ruled out as P- or S-rated specimens (e.g., fruit fly samples with only wings present or abdomens missing or damaged beyond identification. There is no state enforced action other than to conduct resampling or additional survey at the discretion of the Director.

**“W”** A species currently on the California Code of Regulations Section 4500 list of noxious weeds.

“Z” A previously unrated organism of known economic and/or environmental detriment but generally distributed in the state. This is a temporary rating and “C” action is required pending a permanent rating.

In the case of an established infestation, at the discretion of the Plant Health and Pest Prevention Services Director, the department may conduct surveys and may convene the Division’s Pest Study Team to determine a permanent rating.

### **3.2.3 PROCEDURE FOR ESTABLISHING NEW RATINGS**

1. A specimen/sample is received by CDFA’s Plant Pest Diagnostic Laboratory and an unrated organism is identified. The identifier, because of incomplete identification or insufficient information, may assign a “Q” rating if the organism is believed to be of economic importance, documenting the reason(s) for the rating.
2. If the organism is of no economic importance or beneficial, the identifier may assign a “D” rating. No further action is required.
3. To assign a permanent “A”, “B”, or “C” pest rating, the identifier presents supporting documentations to the appropriate primary state professional, and they reach an agreement on a proposed rating.
4. The Branch Chief of Plant Pest Diagnostic Laboratory is then notified in writing, by the primary state professional of the proposed rating and reasons why the rating was selected.
5. The Branch Chief of Plant Pest Diagnostic Laboratory notifies the Assistant Director of Plant Health and Pest Prevention Services and the Division’s Branch Chiefs of the proposed “A”, “B”, or “C” rating and the reasons supporting the proposed rating. If there are no valid objections within two weeks, the Branch Chief of Plant Pest Diagnostic Laboratory will assume concurrence and notify County Agricultural Commissioners of the proposed rating. The rating is established 30 days later if no adverse comments are received and there is no request for a formal meeting of the appropriate Division Pest Study Team.
6. Other state agencies, such as Fish and Game, Health and Forestry, will be consulted regarding their position on proposed ratings for those organisms involving their regulatory or public responsibilities.
7. If any adverse comment was received, the identifier and appropriate primary state professional will refer the comments to the Division’s Pest Study Team and/or the Assistant Director for resolution, if necessary. A request for a formal meeting of the Division Pest Study Team is to be accompanied by the reasons/supporting data for the request.
8. The Division Pest Study Team, if convened, will recommend a pest rating to the Assistant Director, Plant Health and Pest Prevention Services.
9. The Branch Chief of Plant Pest Diagnostic Laboratory will issue the “Important Notices” of the assigned rating.
10. The “Q”-rating of all pests known to be established in California are reviewed every March by the primary state professions to determine if the “Q” status should be continued or if a permanent rating should be proposed. A written report on each review will be prepared and sent to the Branch Chiefs and the Assistant Director. Any proposed permanent rating will be handled as outlined in steps 4 through 8.

11. If the Director determines that an unrated pest poses a major threat to California's agriculture or environment, the Director's Statement of Findings regarding that pest supersedes this document.

### 3.2.4 PROCEDURE FOR CHANGING ESTABLISHED RATINGS

1. Any interested person may recommend a change in an established rating by submitting a request to the Assistant Director, Plant Health and Pest Prevention Services. The Assistant Director will refer the request to the appropriate primary state professional.
2. To change an "A", "B", "C", or "D" pest rating, the person proposing the change presents supporting documentation to the appropriate primary state professional, and they reach agreement on the proposed rating change.
3. The Branch Chief of Plant Pest Diagnostic Laboratory is then notified in writing by the primary state professional, of the proposed rating change and reasons why new rating was selected.
4. The Branch Chief of Plant Pest Diagnostic Laboratory notifies the Assistant Director of Plant Health and Pest Prevention Services, and Division Branch Chiefs of the proposed rating change and reasons for it. If there are no valid objections within two weeks, the Branch Chief of Plant Pest Diagnostic Laboratory will assume concurrence and notify County Agricultural Commissioners of the rating change. The new rating is established 30 days later if no adverse comments are received and there is no request for a formal meeting of the appropriate Division Pest Study Team.
5. Other state agencies, such as Fish and Game, Health, and Forestry, will be consulted regarding their position on proposed rating changes for those organisms involving their regulatory or public responsibilities.
6. Adverse comments, if any, will be reviewed by the appropriate primary state professional. If necessary, the comments will be referred to the Division Pest Study Team and/or the Assistant Director for resolution. A request for a formal meeting of the Division Pest Study Team is to be accompanied by the reasons/supporting data for the request.
7. The Division Pest Study Team, if convened, will recommend a pest rating to the Assistant Director, Division of Plant Health and Pest Prevention Services.
8. The Branch Chief of Plant Pest Diagnostic Laboratory will issue the "Important Notice" of the new assigned rating.

### 3.2.5 CDFA PLANT PEST RATINGS

1. [Invertebrates](#)
2. Pathogens/Diseases
  - a. [Bacteria](#)
  - b. [Fungi](#)
  - c. [Nematodes](#)
  - d. [Viruses, virus-complexes](#)

3. [Vertebrates](#)
4. Weeds
  - a. [Noxious Weeds](#)
  - b. [Weed Policy](#)

#### **RELATED LINKS**

[Federal Noxious Weed List, USDA](#)

[Integrated Pest Control Branch, CDFA](#)

[Invasive Species Search](#)

### **3.3 PHYTOSANITARY CERTIFICATIONS**

The United States is a member of the International Plant Protection Convention (IPPC). This convention was designed to provide international cooperation in preventing the spread of plant pests and diseases across international boundaries. The convention prescribes a standard form for plant protection/phytosanitary certificates. Each contracting government also agrees, to the best of its ability, to make provision for the issuance of certificates only under conditions that make such certificates dependable documents. In a nutshell, the goal of this program is to insure that the pest cleanliness of the commodity meets the minimum standards of the importing country.

It is incumbent on the certifying inspector to ascertain the plant quarantine import requirements of the destination country for each shipment. This will include examination of the import permits, if available. Before issuing a phytosanitary certificate, s/he must determine that the shipment qualifies, and that it conforms to the wordings of the certificate.

#### **3.3.1 PHYTOSANITARY REQUIREMENTS**

Inspection for export certification is made to determine whether plants or unprocessed plant products intended for export comply with the phytosanitary import requirements of the destination country. Inspectors conducting the inspection should be fully informed as to the requirements of the destination country by reference in EXCERPT\* of that country's plant quarantine requirements or other available official information. Where import permits are required, the specific conditions of entry are usually stated on the permit.

For more detailed information please refer to the "Export Certification Manual" in your office.

Chronological or electronic records should be maintained for each certificate at the county office.

Referring to Sections 5201 through 5208 of the California Food and Agriculture Code, no fees shall be charged for a certification required by law. However, each county usually establishes a schedule, and charges for any service, work, travel, overtime or related service.

\*EXCERPT, is the acronym for Export Certification Project, is a computerized database containing the Phytosanitary certification requirements of many countries. EXCERPT is available online to subscribers or via dial-up modem. For more information about EXCERPT call (764) 494-4967.

### 3.3.1 CERTIFICATION OF SEEDS

#### 3.3.2.1 FIELD INSPECTION PROGRAM

Persons or firms desiring phytosanitary certification of seed to countries or states requiring field inspections during the growing crop should apply for the inspection through the California Department of Food and Agriculture, Pest Exclusion office. Upon acceptance, Pest Exclusion will issue a serial number to each application, and send copies of the application to the applicant and to the appropriate County Agricultural Commissioner's office.

Pest Exclusion staff will review the phytosanitary requirements of the receiving company. Applications for phytosanitary field inspections of seed may be denied if the receiving country has officially published any requirements for the commodity.

#### **Applicant Responsibility**

Applicant must comply with the following conditions when submitting applications:

1. Communication must be maintained with the County Agricultural Commissioner prior to submitting the application. Applicant shall work closely with the commissioner and with the grower regarding harvesting, seed separation, and pesticides. The grower or the seed company representative shall contact the commissioner and schedule dates for inspection. A field cannot be inspected if it is being irrigated, or if entry is prohibited because of pesticide treatments.
2. Application must be submitted to the Pest Exclusion office prior to or at time of planting. Failure to submit application on time may result in rejection of application. Plants may be too mature to inspect for diseases of concern or commissioner's office maybe unable to adjust workload to inspect on short notice.
3. Applicants should submit original and two copies of application for "Phytosanitary Field Inspection of Seed" [Form 66-085](#) to:

**Department of Food and Agriculture**

**PEST EXCLUSION BRANCH**

**1220 N Street, Suite A-372**

**SACRAMENTO, CA 95814**

It is recommended that the seed company send a copy of the application to their local representative.

4. When required by the county agricultural commissioner, the applicant must supply a satisfactory map locating the seed field, either on or with the application.
5. All problems relating to field inspection, including late applications, failure to notify county commissioners of time to inspect, inability of inspector to enter field due to irrigation or pesticides, etc., must be resolved by communications between the applicant and the county commissioners.
6. Pest Exclusion lists plant pathogens of phytosanitary concern based on the best information available from official agencies. The seed company should check this list to determine that includes all diseases of concern to their customer. If there are diseases of concern not on the list, the seed company must submit a copy of the import permit or regulations from the importing country verifying that inspection for or freedom from the disease is an official request from the regulatory agency of the importing country.

7. Applicants requesting field inspection for new disease to meet foreign seed company's requirement should confirm with the foreign regulatory agency prior to submitting inspection request to the state.
8. Upon receiving the copy of application, the applicant shall identify each field or plot to be inspected with a suitable stake or placard bearing the serial number assigned by Pest Exclusion. This identification shall be maintained during the growing season.

#### **Results of Field Inspection**

The record of field inspection will indicate all phytosanitary significant pathogens found that are listed by Pest Exclusion.

### **3.3.2.2 INSPECTIONS FOR SEED MOVEMENT**

#### **Responsibility of the Applicant**

The assigned serial number must be maintained on all containers during harvest, processing, and after placement into bags or containers.

Prior to moving any lot of seed for processing and/or from one location to another, including interstate, the applicant shall immediately notify the agricultural commissioner of the county from which the seed is to be moved.

#### **Responsibility of the County/State**

To maintain identity of seed when it is to be moved from one county to another, the agricultural commissioner at origin shall send copies of the record of field inspection to the consignor, consignee, and the agricultural commissioner at destination.

Seed bearing assigned serial numbers and meeting the requirements of the destination county are eligible for export certification by Plant Quarantine Officers.

### **3.3.2.3 CERTIFICATION OF SEEDS TO OTHER STATES OR COUNTRIES**

If requested, Form 66-088 "Inspection Report" may be issued as an addition to either the Federal or State Phytosanitary Certificate.

#### **Bean Seed to Idaho:**

Issue [Form 66-095](#) "Bean Field Inspection Report". One copy must accompany the shipment and one copy is to be given to the seed company.

#### **Identification Numbers Assigned to California Counties**

The county identification number will be used when assigning a serial number to the Phytosanitary Field Inspection application. The first two digits of the serial number will identify the county of origin. The next four digits will be the production year. The remaining digits will identify the order in which the number were assigned for that county that year.

Example: 012004001

County	#	County	#	County	#	County	#
Alameda	01	Kings	16	Placer	31	Sierra	46
Alpine	02	Lake	17	Plumas	32	Siskiyou	47
Amador	03	Lassen	18	Riverside	33	Solano	48
Butte	04	Los Angeles	19	Sacramento	34	Sonoma	49
Calaveras	05	Madera	20	San Benito	35	Stanislaus	50
Colusa	06	Marin	21	San Bernardino	36	Sutter	51
Contra Costa	07	Mariposa	22	San Diego	37	Tehama	52
Del Norte	08	Mendocino	23	San Francisco	38	Trinity	53
El Dorado	09	Merced	24	San Joaquin	39	Tulare	54
Fresno	10	Modoc	25	San Luis Obispo	40	Tuolumne	55
Glenn	11	Mono	26	San Mateo	41	Ventura	56
Humboldt	12	Monterey	27	Santa Barbara	42	Yolo	57
Imperial	13	Napa	28	Santa Clara	43	Yuba	58
Inyo	14	Nevada	29	Santa Cruz	44		
Kern	15	Orange	30	Shasta	45		

### 3.3.2.4 GUIDELINES FOR PHYTOSANITARY FIELD INSPECTIONS OF SEED

Guidelines for Phytosanitary Field Inspections of Seed are based on:

1. Scientific knowledge available
2. Professional experience
3. Official requirements of the receiving countries that have been made available to us

Food and Agricultural Code Section 5205 mandates certification meeting the requirements stated in the laws and/or official import permits of the importing country. The validity of the requirements of the importing country is based on the best judgment of the officials of the importing countries. The jurisdiction for changing these requirements lies with the importing country even though some of these requirements, in effect, place an embargo on California grown seed.

The finding of one or more diseases, listed below under each crop, does not prevent the writing of a valid phytosanitary certificate provided the seed is going to a country that does not restrict the specific disease(s). For example: only one country expresses concern over *Diaporthe phaseolorum* on mother plants in pepper seed fields.

To accommodate seed companies who list "all countries" for "the state or country of destination" thus enabling market expansion after seed has been harvested, the requirements placed on vegetable seed were compiled using: USDA Manual 353-A 'Summaries of Plant Quarantine Requirements of Foreign Countries', quarantine regulations of other states, and the official import permits that were made available to this office.

### **Important Note**

Should a seed company receive an official import permit listing either a disease or a crop other than those listed below, it is ***the responsibility of the seed company*** to forward these documents to the following address:

**California Department of Food and Agriculture**  
**PEST EXCLUSION BRANCH**  
**1220 N Street, Room A-372**  
**Sacramento, CA 95814**

Only the official notices of importing states or countries give this office legal authorization to expend the time and labor necessary to provide training and training aids needed by county inspectors. Applications for inspection of crops not officially requiring inspection will be returned.

Records of applications and field inspections are maintained for three years after seed has been harvested.

The ***inspection timing*** and the ***number of inspections*** suggested for each crop listed below is considered adequate. It will not be necessary to inspect more often than the recommended number of times unless an unseasonable rain occurs after routine inspections have been completed. In the event of rain the field should be reinspected ten (10) days after the rain to confirm cleanliness. The timing and frequency of inspections as listed is for furrow irrigated fields only.

### **3.3.2.5 FIELD INSPECTION POLICY AND PROCEDURES**

#### **Seasonal Employees**

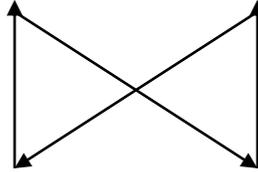
The use of seasonal employees for field inspections is acceptable to the USDA with the following provisions:

1. Seasonal employees are college graduates or are making satisfactory progress in major areas such as agronomy, botany, plant pathology or closely related areas.
2. The seasonal employees are required to have annual training prior to performing field inspections. Training should involve both classroom and field instruction by a qualified plant pathologist. If a qualified plant pathologist is not available with the county staff, please contact CDFA Pest Exclusion or Pest Detection District Pathologist. Seasonal staff should not be used until they demonstrate they can competently identify symptoms and diseases caused by significant quarantine pathogens in the field.
3. Field identifications need to be confirmed by a qualified plant pathology laboratory. Normally, the California Department of Food and Agriculture's Plant Pathology Laboratory in the Plant Pest Diagnostic Center in Sacramento will do the confirmation. Properly staffed and equipped county or Federal laboratories may also be used.
4. Seasonal employees must work under the supervision of a full-time, permanent county biologist.
5. Regular training in the detection of target pathogens is essential to maintain the quality of inspection regardless of the field pattern used. Annual employee refresher classes are encouraged. A pre-season class for seasonal employees is mandatory under USDA standards.

### **3.3.2.6 FIELD INSPECTION WALKING PATTERNS**

**1. Cereal Crops**

The pattern for walking cereal crops is similar to the letter X. Start in one corner of the field and inspect plants along one edge of the field. At the end of the field, diagonally cross through the center to the opposite corner. Then walk the edge of the field (opposite from where you started) to the corner. Finally, diagonally cross the field again to finish at the corner where you began.



Walking through the two edges of the field increases the probability of finding ergot along those edges that are adjacent to uncontrolled wild grasses and volunteer cereals during the third field inspection.

**2. Other Crops**

A statistical method is used to walk fields. The accuracy of this method is based on the number of plants observed compared to the number of plants in the field. This method provides a minimum of 95% confidence in detecting an infection of 0.1%. In most crops, the confidence level will be greater than 95%.

**3.3.2.7 STATISTICAL METHOD OF FIELD WALKING FOR NON CEREAL CROPS**

To determine how to conduct field inspections on crops other than cereals, inspectors must first know the number of acres in the field. This information is found on the application for phytosanitary field inspection of seed. Then, the inspector needs to determine the minimum number of passes required for each field using the chart below.

1. Select the minimum number of field passes from the table below based on the number of acres in the field. For example, a 30-acre field calls for a minimum of 17 passes according to our table.
2. Estimate the length of the field borderline. Figures should be close, but they do not need to be exact. (For this example, use 1,100 feet.)
3. Equally space the passes along a field borderline (1,100 feet/17 passes = 65 feet per pass.)
4. Walk the passes including the field borders at the end of the pass. If the last scheduled pass does not reach to the field border, continue to walk additional passes. When walking at the edge of the field, the inspector should walk approximately 10 feet inside the field to maximize the number of plants examined.

**Minimum number of field passes for each field.**

Minimum # of Acres in Field	Field Passes	Minimum # of Acres in Field	Field Passes
0-1.0	6	50.1-100.0	20
1.1-5.0	9	100.1-200.0	24
5.1-10.0	11	200.1-500.0	30
10.1-20.0	13	500.1-1000	36
20.1-50.0	17		

3.3.2.8 CROPS, DISEASES, AND INSPECTIONS

Follow the link below for current PQ field walk information:

<http://phpps.cdfa.ca.gov/PE/InteriorExclusion/pdf/CropsDiseases&Inspections.pdf>

3.4 CONVERSION OF BULK COMMODITIES TO UNITS

To obtain uniformity in reporting plant quarantine inspections for the monthly, annual and other reports and validations, Agricultural Commissioners should use the conversion chart below to convert bulk commodities into units.

COMMODITY	UNIT	POUNDS	COMMODITY	UNIT	POUNDS
Alfalfa meal	Sack	100	Peanuts (shelled)	Sack	120
Alfalfa seed	Sack	165	Oats	Car or Truck	
Apples (northwest)	Box	44	Onions (dry)	Sack	100
Bananas	Box	40	Pears (northwest)	Box	46
Barley	Car or Truck		Peas (green)	Bu	30
Beans (Castor)	Cwt	100	Peas (dry shelled)	Cwt	100
Beans (all dry)	Sack	100	Popcorn (shelled)	Cwt	100
Beans (green)	Bu	30	Potatoes	Sack	100
Broomcorn	Bale	333	Potatoes (seed pieces)	Cwt	100
Buckwheat	Cwt	100	Potatoes (sweet)	Crate	50
Cantaloupe	Crate	80	Rapeseed	Cwt	100
Celery	Crate	60	Redtop seed	Cwt	100
Corn (Kaffir)	Car or Truck		Rice (polished & rough)	Cwt	100
Corn (shelled)	Car or Truck		Rye	Sack	130
Cotton	Bale	500	Sorghum seed	Sack	125
Cottonseed	Cwt	100	Sudangrass seed	Cwt	100
Flaxseed	Cwt	100	Sweet Potatoes	Crate	50
Grapes (table)	Lug	28	Timothy seed	Cwt	100
Grapes (wine)	Car or Truck		Tomatoes	Lug	32
Hempseed	Cwt	100	Tomatoes (Mexican)	Box	21
Milo	Car or Truck		Vetch	Cwt	100
			Wheat	Car or Truck	

3.5 APPROVING QUARANTINE MATERIAL HANDLING LABORATORIES

Section 3154 of Title 3 of the California Administrative Code authorizes CDFA’s PHPPS Director to issue permits allowing movement into or within the State of articles and commodities otherwise prohibited by the Department’s plant quarantine regulations.

There is a continuing need by residue testing laboratories in California to be permitted to receive samples of plant material which is often restricted or prohibited entry into California by the Department’s plant quarantine regulations. Such material for the most part is used in research studies or scientific tests, which are beneficial to the agricultural industry in California as well as other states. Due to the numerous samples to be received by each laboratory it would not be practical to issue a permit for each sample.

The laboratories must meet certain requirements and agree in writing to abide by certain limitations, conditions and provisions in handling sample material that would otherwise be restricted or prohibited under California plant quarantine regulations.

A laboratory desiring a permit should apply through the County Agricultural Commissioner to CDFA's PHPPS/ Permits and Regulations Program. County Agricultural Commissioner and/or Pest Exclusion will inspect laboratory facilities and equipment. These permits automatically terminate after two years from the date issued, and are revocable at any time.

Applications for permit renewals should be made in writing and received by the CDFA's Permits Program at least 30 days prior to the expiration date of the existing permit.

Minimum requirements for issuing a permit to a laboratory are:

1. Availability of a satisfactory place within the laboratory for holding and inspecting incoming material.
2. Availability of equipment or facilities in laboratory for immediate treatment, or destruction if necessary, of pest contaminated material. Such facilities include but not limited to incinerator, steam sterilizer (autoclave), oven, large cooker, fumigation chamber, acid or caustic vat. A Waring blender, or similar type of equipment, may be approved as a treatment for material for insects.
3. Availability of a freezer capable of holding stored material at 20 degrees Fahrenheit or lower.
4. Proper maintenance of records, listing type of material, date received, and amount of each lot tested or disposed, until all sample has been accounted.

Each laboratory must sign a written compliance agreement with the County/Pest Exclusion to carry out the following requirements and safeguards

1. The laboratory employee requesting or arranging for shipments of material will consult County Agricultural Commissioner and/or Pest Exclusion to determine if material is subject to quarantine.
2. Collectors or persons gathering material for shipment are to select material carefully to exclude insects, diseases, weeds or weed seed and other pests.
3. All samples are to be free of soil, debris and roots, except root crops well washed before shipping. Laboratories interested in receiving soil or roots etc normally prohibited or restricted by quarantine may arrange for special permit(s) for individual samples. Such permits must be granted prior to shipment.
4. All samples of plant material must be contained in plastic bags securely tied or sealed and shipped in sturdy outer containers.
5. Samples must be shipped by commercial carrier or USPS and are not to be transported as baggage or personal belongings unless advance permission was obtained.
6. The County Agricultural Commissioner is to be notified after arrival of sample, and before unwrapping, and arrangements made for inspection of the sample.
7. Quarantine or infested material that presents pest hazard must be labeled and recorded. The record will be maintained until the entire sample has been utilized in the process of testing or is otherwise treated or destroyed by an approved method. The records must be made available to state/CDFA and/or County inspectors on request.
8. Permitted quarantine material received must be retained in storage, held in a freezer in plastic bags or other tight containers. Such material must be tagged with a yellow quarantine tag (Form 66-058) or other suitable tags as approved by the Agricultural Commissioner. CDFA or County agricultural inspector may destroy any improperly held or recorded material.

9. Plant material received by an approved laboratory shall be used for analysis or testing only. The material must never be used for propagation or removed from the laboratory for any purpose without treatment and prior permission from the Agricultural Commissioner or Pest Exclusion.
10. Quarantine and/or recorded pest material shall be treated or disposed of in an approved manner to the satisfaction of the agricultural inspector, unless the process of testing is determined by the inspector to be an adequate method to destroy or prevent escape of any pest which is or may be present.
11. Materials are to be limited to the minimum amount needed for testing.
12. Some special provisions for selecting and preparing certain quarantine material at origin for shipment are:
  - Corn plants (stalks, leaves, or ears). Chop stalks and leaves into small pieces approximately six inches long. Break ear or cob into at least three pieces. Examine for evidence of insects tunneling in stalks, ear or cob.
  - Sweet potatoes. Cut in approximately one-half-inch slices and inspect for evidence of sweet-potato weevil.
  - Cotton seed and cotton bolls: Time requests for material so that it may be processed or tested immediately on arrival. Only the amount that can be immediately tested is to be shipped. This material cannot be held in storage.
13. If the plant material to be received is also restricted movement by federal regulations, the permittee shall obtain any necessary USDA permit or certificate prior to shipment of the material.

[Approved Laboratories Agreement \(Form 66-105\)](#)

### 3.6 SOIL POLICY AND APPROVED SOIL LABORATORIES

For the purpose of quarantine handling, soil may be classified into five categories:

1. Soil From Areas Under Quarantine. Soil collected in and shipped from areas under quarantine in which soil is subject to the quarantine regulations in effect at origin.

Restrictions: Shipments accompanied by the appropriate certificates will be inspected and released if inspection findings are negative.
2. Soil Infested With Plant Pests. Soil known or believed to be infested with a plant pest, such as a nematode, fungus, broomrape, insect, etc., intended for scientific purposes, is subject to the regulations of the Federal Plant Pest Act if moved interstate and is subject to the restrictions of Section 6305, Food and Agricultural Code, if moved within the State. A permit is required in either case. This soil is also subject to the regulations of any quarantine in effect at origin.

Restrictions: Shipments accompanied by the required permit, and necessary certificates, will be sent to destination under a 66-008 if properly packaged.
3. Soil From Foreign Counties and U. S. Territories and Possessions is subject to the regulations of the Federal Plant Pest Act. A USDA permit is required (PPQ Form 525).

Restrictions: Shipments accompanied by the required USDA permit will be inspected and released.

4. Soil From Nonregulated Areas. Soil collected in and shipped from nonregulated areas in the continental United States is not restricted unless known or believed to be infested with plant pests as indicated in category 2 above. Soil should be inspected if suspected of carrying plant pests.

Restrictions: Shipments will be inspected and released unconditionally, if no pests are found. If pests are found, it becomes subject to the restrictions of category 2 above.

5. Rock, Industrial Sand, Mined Clay, Gravel, etc., which may be way-billed, manifested, or invoiced as a "soil sample" is not restricted unless the article is covered by a specific quarantine or the sample is contaminated with or contains an admixture of soil.

Restrictions: Shipments will be released. If it contains soil as a contaminant or an admixture, it shall be accorded the same status as soil from the same origin and handled accordingly.

Shipments not meeting the above requirements should be refused entry. If requested, shipments may be held at the station under proper safeguards while permit and any other necessary arrangements are made.

#### SOIL LABORATORIES; COMPLIANCE AGREEMENTS

1. When a California soil laboratory is interested in applying for a USDA Compliance Agreement to receive soil samples from anywhere in the United States or foreign countries (except certain portions of Canada), representatives of the County Agricultural Commissioner, Pest Exclusion (if available), and USDA, APHIS, PPQ should make the initial inspection of the laboratory. With all representatives present, all questions concerning regulations, quarantines, and handling (interstate, intrastate and federal foreign procedures) can be answered.
2. USDA, APHIS, PPQ will complete the Compliance Agreement (PPQ Form 119) by having the responsible laboratory official sign the agreement and the county agricultural inspector will sign for both the County and the State (Pest Exclusion does not sign the agreement).
3. After the Compliance Agreement is completed, the original will be given to the laboratory with copies to the County Agricultural Commissioner and the USDA District Plant Protection Inspector.
4. In the interest of minimizing duplication of effort after the initial inspection and approval, we recommend that the county inspector monitor the laboratory in a routine manner at 6-month intervals. These inspections should be reported to the USDA District Plant Protection Inspector.

#### STIPULATIONS FOR HANDLING SOIL SAMPLES

Soil samples of any size may be received for processing provided the following requirements are met:

##### Shipping Containers

Soil samples must be shipped in sturdy, leak-proof containers, and marked "Contents - Soil Samples." These containers must be disposed of by burning or other approved methods. In event they are to be re-used they must be decontaminated by one of the approved heat treatment schedules.

##### Residue

Residue includes all unused soil from the shipment as well as screenings from filtrations and soil used in ph tests. All residue must be disposed of using one of the following methods:

- A. Dry Heat

<u>Temperature</u>	<u>Exposed Period</u>
230 - 249 ° F	16 hrs.
250 - 309 ° F	2 hrs.
310 - 379 ° F	30 min.
380 - 429 ° F	4 min.
430 - 450 ° F	2 min.

Do not start counting time until entire mass has reached the required temperature.

- B. Steam Heat 15 lbs. pressure for 30 minutes. Individual packages of 5 pounds or less or, if in trays, the soil residues should not exceed 2 inches in depth.

Do not start counting time until pressure reaches 15 lbs.

- C. Fumigation with methyl bromide at 10 lbs. of methyl bromide per 1,000 cubic feet for 24 hours, atmospheric pressure, Soil shall be dried to friable condition prior to fumigation.

- D. Any other procedure approved by the Director(s).

#### Water Used to Process Sample

Whenever water is utilized in processing a soil sample, including initial rinse water of contaminated equipment, the used water shall be treated by one of the following methods before discarding:

- A. Boiling for one minute; or
- B. Placing in holding container and treating with one part DD (dichloropropane-dichloropropene), and one part Triton X-100, or a dishwashing detergent, to 98 parts of water in a holding container. Hold the treated water at 70 ° F. for 30 minutes before discarding; or
- C. Filtering through a 100-mesh screen or suitable paper filter. The residues left in the filter should be burned. This method is approved only for domestic soil samples; effluent from foreign soil samples should not be filtered but must be handled as in A or B above.

#### Reshipment

Soil samples will not be reshipped to other laboratories unless such laboratory has a valid USDA permit and compliance agreement for imported soil, or a valid compliance agreement for domestic soil.

#### USDA Soil Permit

Requests for permits for soil from Hawaii, U.S. Territories and Possessions, and foreign countries will be directed to the Permit Unit, USDA, APHIS, PPQ, 6505 Belcrest Road, Room 638, Federal Building Hyattsville, Maryland 20782.

#### Sampling Equipment

When the laboratory has control over the collection of soil samples, they will inform the collectors that equipment used for collecting soil samples in areas subject to Federal and/or State cooperative domestic plant quarantines will be thoroughly cleaned of all soil residues at the collection site.

Adhere to all State of California quarantines dealing with soil. If there are any questions on this, contact the County Agricultural Commissioner.

SOIL LAB INSPECTION CHECK LIST

1. Do you have a Federal Soil Compliance Agreement?
2. If yes, when was it issued? Date \_\_\_\_\_ What is the number? \_\_\_\_\_
3. Are you now or will you be receiving soil samples from foreign countries, territorial U.S., Hawaii, or Alaska? \_\_\_\_\_
4. If yes, do you have a permit to receive such soil samples?
5. If yes, when does it expire: Date \_\_\_\_\_ What is the number? \_\_\_\_\_
6. Do you have any other permits issued by the CDFA or USDA? \_\_\_\_\_
7. Are any soil samples reshipped? \_\_\_\_\_
8. If yes, is soil reshipped to an approved laboratory only? \_\_\_\_\_
9. Are you aware that foreign soil may not be reshipped? \_\_\_\_\_
10. Are shipping containers of soil samples marked "SOIL SAMPLES"? \_\_\_\_\_
11. Are the containers leak-proof? \_\_\_\_\_
12. Are the used shipping containers decontaminated before reuse or disposal? \_\_\_\_\_
13. If yes, Burning \_\_\_\_\_ (for disposal)  
Dry Heat: Temp. \_\_\_\_\_ Time: \_\_\_\_\_  
Steam Heat: Temp. \_\_\_\_\_ Time: \_\_\_\_\_  
Ch3Br fumigation: Lbs./1000 cu. Ft. \_\_\_\_\_ Time: \_\_\_\_\_
14. By what other method are used shipping containers decontaminated? \_\_\_\_\_
15. Is soil residue disposed of by:  
Dry Heat: Temp. \_\_\_\_\_ Time: \_\_\_\_\_  
Steam Heat: Temp. \_\_\_\_\_ Time: \_\_\_\_\_  
Ch3Br fumigation: Lbs./1000 cu. Ft. \_\_\_\_\_ Time: \_\_\_\_\_
16. What other method is used to dispose of soil? \_\_\_\_\_
17. Is the oven scaled so that no pest could escape? \_\_\_\_\_
18. Whenever water is used to process a sample, including rinsing contaminated equipment, is it disposed of by: Boiling:  
\_\_\_\_\_ Time: \_\_\_\_\_  
Chemically treating: Chemical \_\_\_\_\_  
H2O Temp: \_\_\_\_\_ Time: \_\_\_\_\_  
Filtering: 100 mesh screen \_\_\_\_\_ Paper \_\_\_\_\_  
(Effluent from foreign soil samples should be boiled or chemically treated)
19. If stored soil is untreated, is it enclosed in sturdy, leak-proof containers?
20. Is a log book maintained stating (a) Date soil received, (b) Origin, (c) Disposition date?

## 3.7 POSTENTRY QUARANTINE PROCEDURES

Postentry quarantine was initiated by the USDA to allow the importation of plant material(s) that may have diseases which are not readily apparent. The program provides that “restricted” materials be held by a permittee for a two-year period, six months for *Chrysanthemum spp.*, one year for *Dianthus spp.* Such plant material is subject to inspections by the USDA or CDFA plant pathologist.

### 3.7.1 PERMIT PROCESS

Applicants should apply for a PPQ Form 546 through the USDA’s electronic permitting system (Epermits).

[Link to PPQ Form 546 information and application](#)

CDFA will then be notified by the USDA. CDFA staff will perform a site inspection of the growing grounds to ensure the applicant can meet quarantine requirements.

If the site is approved, CDFA will forward the completed Forms 546 to the USDA, who will issue the permit. It can take over a month to receive a permit. If a permit is issued, the permittee may go forward with the importation of restricted plant material.

Once the restricted plant material is shipped, it will be forwarded to the nearest USDA Inspection Station upon arrival, where it will be inspected.

After inspection, the USDA personnel will fill out PPQ Form 236, (Notice of Shipment and Report of Inspection of Imported Plants -Grown Under Postentry Quarantine) which gives the following information:

- Permittee
- Growing ground site address
- When the plant material arrived at the Inspection Station
- When the plant material was released from the Inspection Station
- Quantity or amount
- Type(s) of plant material

This form includes an Inspection Station Reference Number. This number allows the proper tracking of the plant material throughout the two-year quarantine period.

Thereafter, the plant material is shipped to the permittee and will begin its quarantine. CDFA pathologists inspect the material at least twice during the quarantine period, complete the PPQ Form 236, and submit these to the USDA. The USDA issues the final release of the material.

### 3.7.2 MOVEMENT OF RESTRICTED MATERIAL DURING THE QUARANTINE PERIOD

An individual wishing to receive plant material during the quarantine period is required to get a postentry quarantine permit. They need to fill out Forms 546 as required above.

Once a permit is issued, the individual wishing to ship the plant material is required to obtain written permission from the USDA or CDFA, Permits and Regulations Program to move the plant material. The request must contain the following information.

- Permittee name and address (shipper)

- Number of plant material to be moved
- Inspection Station Reference Number under which the plants were imported
- Receiver's name and address
- When the plants will be moved

Note: For more detailed information on this program, refer to the "[Postentry Quarantine Manual for State Inspectors – Procedural Manual for State Inspectors Conducting Postentry Quarantine Duties.](#)"

## 3.8 SPECIMEN COLLECTION AND SUBMISSION GUIDELINES

A Pest Damage Report (PDR) must also be completed online at (password is needed):

<http://phpps.cdfa.ca.gov/user/frmLogon2.asp>

A printed copy of the PDR labeled with a PDR sticker must accompany the shipment sent to the lab. All vials must also label with PDR stickers. PDR stickers may be requested by emailing [pdrstickers@cdfa.ca.gov](mailto:pdrstickers@cdfa.ca.gov).

### 3.8.1 DISEASE PATHOGEN, NEMATODE, AND INSECT SAMPES

#### A. DISEASE PATHOGENS

A sample should be collected any time that an intercept plant material(s) is suspected of infection or may be infested with quarantine or pest-rated plant pathogens. The sample should be submitted to:

**California Department of Food and Agriculture  
Plant Pest Diagnostics Laboratory  
Plant Pathology Section  
3294 Meadowview Road  
Sacramento, CA 95832-1448  
Phone: 916-262-1100**

The guidelines for submitting such samples are:

1. Collect as many portions of the symptomatic diseased plants as possible: roots, branches, stems, leaves, and fruit; entire plants may be submitted if small. Mark suspected symptom areas with tape, string, or waterproof pen, directly on the specimen. Include specimens that exhibit margins of healthy and diseased tissues. These margin areas facilitate testing and disease determination.  
  
Virology specimens should include "green" (i.e., fresh) plant tissue associated with the symptomatic tissues (areas). Dry, necrotic or rotting "brown" areas are impossible to test for viruses. Mycology and bacteriology specimens should include the margin areas (healthy and diseased tissues), but submit entire fruits and leaves when possible. These areas are where the fungus or bacteria is still alive and active, facilitating isolation and identification.
2. Packaging of samples is dependent on the material you wish to send:
  - Leaves – Place in plastic bag with dry paper towels.
  - Stems – Cut to size and place in small plastic bag with crumpled paper towels. Moisten towels if dry conditions occur.

- Roots – Wash free of soil and send like stems.
  - Whole plants – May also be sent like stems. Specimens submitted in plastic bags should have holes punched in the bags; this will allow specimen to “breathe” and not kill the organism – unless highly contagious diseases are suspected, then specimens should be double-bagged (see citrus canker guidelines below). Do not enclose the PDR document inside the bag.
3. When filling out the Pest Damage ([Form 65-020](#)) be sure to fill in all pertinent information in the spaces provided. Under the space marked “remarks,” note what you suspect, what you want them to identify, and anything else that may help with the diagnosis. Include FAX and phone numbers where necessary on the PDR for immediate reply, etc.
  4. Samples should be refrigerated and submitted as soon as possible. Samples collected in the field should be stored in an ice cooler with blue ice. Keep specimens at 50-55°F.
  5. Specimens should be mailed early in the week (e.g., Monday through Wednesday) to avoid layovers during the weekend, which may cause sample spoilage. Do not send specimens by commercial bus lines (e.g., Greyhound) as notification may be slow and CDFA personnel may not be available to pick up the sample immediately. Commercial parcel services (e.g., UPS and FedEx) are good shipping alternatives.
  6. Citrus Canker: Because the disease is easily transmitted through handling or movement of infected material, it is necessary to observe the following procedures when inspecting, sampling, or disposing of any contaminated host materials:
    - **Inspection and Sampling Canker:**
      - Use disposable gloves when handling fruit or any other host material for inspection. After samples are collected, place gloves in the bag with the sample.
      - If gloves are not worn, be sure hands are dry. Bacteria can be transmitted easily through moisture.
      - Collect at least three to four fruits or other plant parts (leaves, stems, etc.) exhibiting the best symptoms of the disease. Do not submit rotten, or partially rotten, fruit.
      - Submit whole fruit or leaves for identification. Do not cut lesions out of fruit or leaves.
      - Each fruit should be separated from the other fruits to avoid cross contamination. Wrap each sample in dry newsprint or a paper towel, and place each wrapped sample in a sealed plastic bag. If submitting stems or leaves, all samples may be placed in the same bag.
      - Place all sealed individual bags inside another plastic bag and seal. If gloves have not been worn, wash hands thoroughly with soap and water after handling samples and before handling outer bag.
      - Place remaining fruit, plants, or plant parts in plastic bag and seal. Again, wash hands thoroughly with soap and warm water, then double-bag and seal. Place plants on hold pending identification of samples. Make sure all held shipments are properly safeguarded.
      - Rinse any tools that were used in the inspection process and wipe all surfaces coming into contact with the samples with 70% isopropyl rubbing alcohol.
    - **Submitting Canker Samples to Lab:**
      - When filling out the PDR, be sure to include a phone number, fax number, and the name of the person to contact.
      - Place double-bagged samples in a cushioned box for mailing.
      - Use overnight mail if possible.
      - If unable to mail right away, refrigerate samples until you are able to ship them.

- **Disposal of Canker Samples:**

- Any items of clothing that came into contact with contaminated or possibly contaminated fruit should be washed as soon as possible.
- If citrus canker is confirmed on any of the samples, properly dispose of the entire shipment by either autoclaving (best option) or steam sterilizing at a certified facility. Contact the Pest Exclusion District Biologist to help facilitate proper disposal.
- Please note that it is not necessary to submit samples from any host material that is prohibited under Federal Foreign Quarantine 319.19 or 319.28. This includes all genera, species, and varieties of the family Rutaceae, including Szechwan pepper, citrus nursery stock, and untreated citrus peel. Material covered under a Federal Foreign Quarantine should be rejected and disposed of following the same guidelines as above, regardless of the presence or absence of any pest or disease symptoms.

7. **Sudden Oak Death (SOD), *Phytophthora ramorum*** samples:

**Oaks and Tanoaks:** Symptoms on tanoaks (*Lithocarpus densiflorus*) may include drooping or wilting of new growth prior to the appearance of bleeding cankers. On oaks (*Quercus spp.*), such wilting does not occur. Instead, reddish-brown bleeding from cankers is the first visible symptom. Removal of the outer bark reveals a zone of necrotic tissue delimited from healthy tissue by a dark zone line. Foliage changes occur in the advanced stages of decline. Leaves may cling to branches for up to one year after tree death.

Due to the difficulty in confirming the SOD pathogen from wood from suspect trees, you are strongly encouraged to also survey around any suspect trees and submit other symptomatic material from nearby hosts. It is often useful to look for blackened leaf tips, a symptom on California Bay trees.

To confirm that a symptomatic tree has the SOD *Phytophthora*, the pathogen has to be cultured on a special agar medium from a sample of the inner bark of the tree. Sampled bark pieces are placed in petri dishes containing pimarinic-ampicillin-rifampicin-PCNB agar (PARP), a selective media for *Phytophthora* species. To obtain the PARP medium, contact the Plant Pest Diagnostic Branch (PPDB) or your local UC Cooperative Extension office.

**Equipment needs:** *Ensure all tools are sterilized prior to sampling and between taking samples.*

Axe or hatchet

Sterilizing agent such as 70% ethanol, Lysol or 10% commercial bleach

Pens for labeling samples

Scalpel or sharp knife

Forceps

PARP selective media in petri dishes

Tape to seal petri dishes

Paper bags and/or box for sending samples to the lab

- Shave away the outer bark above or to the side of a seeping area and examine the lesion area until a canker margin (zone line) is evident.
- Use the knife and forceps to excise small pieces (approx. 1/8" x 1/8" or smaller) of the phloem including both healthy and necrotic bark tissue on both sides of the zone line.
- Place each phloem piece on the medium and push down until it is covered by the medium.
- When you have 6 to 8 pieces of phloem inserted in the medium, seal the plate with the tape and label it, including the date, location and species of the tree sampled. Repeat the same process on another plate (sample each tree using two plates).

- Mail plates for incubation and identification of the fungus to:
- California Department of Food and Agriculture
- Plant Pest Diagnostic Laboratory
- 3294 Meadowview Road
- Sacramento, CA 95832-1448

**Rhododendron (*Rhododendron sp.*):** Symptoms of *P. ramorum* on Rhododendron, include twig dieback and leaf spotting, usually not mortality. Look for brown spots on leaves that have diffuse, fuzzy margins, rather than sharp margins indicative of sunburn injury, and generally do not involve the midrib of the leaf. Also, look for blackened shoots with or without foliage still attached.

**California or Evergreen Huckleberry, (*Vaccinium ovatum*):** The symptoms include twig dieback and, in advanced stages, will kill canes down to the ground, killing all the above ground portions of the plant. Look for small, blackened twig cankers that are girdling the twigs. Tissue beyond the twig cankers may be dried and/or wilted. Cut the twigs below the cankered regions (well into the healthy tissue).

**California Bay Laurel (*Umbellularia californica*):** The symptoms of *P. ramorum* on California bay laurel have been confined to leaf spotting, often surrounded by a chlorotic halo. Leaf spots are often at the leaf tip and may or may not have a blackened line at the border. Anthracnose may also cause this symptom.

**Madrone (*Arbutus menziesii*):** Symptoms include leaf spotting and cankers on small branches. At advanced stages, the entire leaf and shoot turns black.

**California Buckeye (*Aesculus californica*):** The symptoms of *P. ramorum* on California buckeye include leaf spots and cankers on petioles and small twigs. The leaf spots appear to be more distinct around the margins of the leaf.

## B. NEMATODE SAMPLES

Damage to plants caused by plant parasitic nematodes cannot be diagnosed on the basis of plant symptoms. Plants affected by nematodes may show no symptoms of damage, or manifestation with general symptoms of an impaired root system commonly produced by several biotic and/or abiotic conditions. In order to detect the presence of plant parasitic nematodes associated with plants, samples are collected appropriate to the biology and feeding behavior of nematodes. Most nematodes of quarantine significance e.g., burrowing nematode, reniform nematode, sting nematode, European dagger nematode and soybean cyst nematode, feed on plant root tissue. Others, such as the strawberry summer dwarf nematode, feed on above ground plant parts. The following guidelines concern the collection, preservation and shipment of quarantine samples for nematode assay:

1. Collect up to one quart of roots and soil from plant when possible or a composite sample of at least one quart of roots and soil from several plants. If shipment is less than one quart then collect one cup full of roots and soil. If the shipment is less than one cup then collect as much of a representative sample as possible.
2. Collect roots and soil from several plants (sub-samples) in large shipments. Mix sub-samples into a composite sample. Soil/root sub-samples from the same plant variety may be combined to form a composite sample.
3. When sample comprises a few roots without soil, and no processing facility exists in the county laboratory, put roots in a nematode sample vial with one or two drops of water and send by the quickest mail to CDFA's Nematology Laboratory. More than one vial per sample may be used as long as proper and complete origin/sample identity

information is given. When the root sample is large, put roots with one or two drops of water in a plastic bag. Avoid large air spaces by sealing/tying the bag close to the enclosed sample.

4. Do not moisten sample by enclosing a moist paper towel in sample bag.
5. Put sample in durable plastic bag only. Use two bags if necessary. Dry seed samples may also be put in durable plastic bags. Raw vegetable and aboveground plant parts should be put in plastic bags.
6. Label sample bag. Do not enclose label tag in bag. For shipment to laboratory, place all written material in box, not within sample bag.
7. Keep samples cool (50-55 degrees F) after collection. During collection, put samples in an insulated cooler. If necessary, use blue ice packets but wrap ice packs in paper to prevent freezer burn of sample through direct contact. Do not freeze the sample. Do not place samples in direct sunlight or in car trunk.

### **C. INSECT SPECIMENS**

The following is a basic overview of collecting, preserving and shipping techniques, which will assist field personnel in submitting insect specimens to the CDFA Plant Pest Diagnostics Branch in Sacramento:

1. All samples should be mailed in boxes. CDFA often provide such boxes. Do not submit samples in envelopes, even the padded ones. The samples invariably arrive crushed.
2. Alcohol (70-75% isopropyl) in small vials, sometimes supplied by CDFA. These vials should be used for most general collecting work. Larger collection containers will have to be supplied by the collector. Any jar or vial with a tight fitting lid is adequate, and these can be filled with common rubbing alcohol. For specimens, like larval forms that require boiling water, a microwave oven is useful. Do not microwave the specimen, just the water!
3. Killing bottles can be used for some groups of insects, especially adult Lepidoptera. Cyanide is no longer recommended, but ethyl acetate or fingernail polish remover, few drops on absorbent paper can be used for this purpose. Alternatively, placing the specimen in a jar and freezing is an option, especially for medium to large Lepidoptera. Samples should be thawed prior to shipment.
4. Some specimens, especially the relatively non-mobile insects such as scale insects, whiteflies and adult Lepidoptera, are best sent dry, either in perfectly dry vials or in paper or plastic bags. If the sample is in bags, some amount of paradichlorobenzene (PDB), mothballs or flakes, should be included in the container to kill anything that might be alive. The PDB must be wrapped and sealed in paper toweling or facial tissue to keep it from mixing throughout the sample.
5. Collect an adequate number of specimens. Variability is a common problem in some species groups, and a large series facilitates the taxonomist's ability to give correct determinations. Also, a series may assure that the proper life stage necessary for identification is present, especially in the case of insects that have an incomplete metamorphosis.
6. Whenever possible, the sample should include host plant material. Write the scientific or common names of the host(s) on the accompanying PDR. Small arthropods such as scales, whiteflies, aphids, mites, thrips and the like are easily damaged if collected individually. Parts of the plants with the specimens attached are often best collected by placing the infested plant parts directly into alcohol. However, be careful not to take whole leaves and roll them too tightly in order to get them into a small vial. The leaves turn brittle and will shatter when removed from the vial. The specimens may also be crushed.

### **RECOMMENDATIONS APPLYING TO INDIVIDUAL ARTHROPOD OR OTHER GROUPS**

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1. **ACARI (mites)** are best collected fresh, into alcohol, along with infested parts of the leaf or other plant parts. Identifications, particularly of the tetranychid mites, require the male mite. Collecting a good sample on infested plant parts improves the chances that a male will be present in the sample. Samples can be collected in bags if the sample is mailed as soon as possible after collection. Waiting too long will result in dried out or moldy samples and at times lost specimens.
2. **COLEOPTERA (beetles and weevils)** may be killed in either alcohol or a killing bottle. Immature stages should be dropped in boiling water for 1-2 minutes and then transferred to 70-75% alcohol. If it is not possible to kill them in boiling water, specimens may be placed in the vial of alcohol. If beetles in any stage have been killed in alcohol, they may be preserved and shipped in the same material. If killed by other methods, adults may be transferred to alcohol or layered between soft material such as tissue paper or paper napkins - do not use cotton as its fibers can become tangled around the insect's appendages and removal could break them off. Broken and missing tarsal or antennal segments hamper identification.
3. **DIPTERA (true flies) and HYMENOPTERA (ants, wasps, and bees):** Adults of all Diptera and Hymenoptera are most easily handled for identification if sent to the laboratory preserved fresh in 70-75% alcohol. Most of the specimens may be killed and preserved directly in alcohol. Specimens that are dead when found should be carefully placed in hot water for 10 minutes before being transferred to alcohol. This softens the tissues and prevents breakage. Larvae of Diptera and Hymenoptera should be submitted for identification in 70-75% alcohol. They are best preserved if fixed before preservation. Fixing may be accomplished by dropping the living larvae in boiling water for 1-2 minutes. Larvae of Diptera and Hymenoptera are usually much more difficult to identify than the adults, so if at all possible, adults should be associated with larvae. If not possible to collect adults, a sample of the damage caused by the larvae should be submitted.
4. **GASTROPODA (snails and slugs)** should be killed by submersion in water, usually 12-24 hours and then preserved in alcohol, allowing for approximately 10 times the specimen body size with the alcohol.
5. **HETEROPTERA-"HEMIPTERA" (true bugs)** should be collected directly into alcohol.
6. **HETEROPTERA -"HOMOPTERA" (Scales, mealybugs, whiteflies, aphids, psyllids, and leafhoppers)** are collected in a number of ways depending on the group. Scale insects and immature whiteflies can be submitted on pieces of plant in alcohol, but it is preferable if they are sent on the host plant in plastic bags. Adult whiteflies should be collected in alcohol. Also, in the case of whiteflies for positive identification, it is usually necessary to have the last stage nymph or pupa in the sample. Mealybugs can be with part of the host if convenient. Most mealybugs are mobile throughout life; if collected into a bag, they will often get into the corners of the collection bag and become crushed. Collecting into alcohol will prevent this. While mealybug wax patterns can be used for tentative field identification and local county entomologist may use these as diagnostic characters, the wax patterns are not used in CDFA's Plant Pest Diagnostic Lab for identification. Therefore it is not important if the wax comes off the specimen in alcohol. Also, mealybugs usually must be slide mounted using a process that takes several hours, so the turnaround time in this group is generally longer than for the rest of the scale insects, which often do not require this same preparation. Aphids and psyllids should be collected in alcohol and should never be preserved dry. For aphids, select the largest individuals of both winged and wingless forms, if present. Alcohol is preferable for the leafhopper, cicada, and treehopper groups, but dry or pinned material is adequate.
7. **LEPIDOPTERA (moths, skippers and butterflies)** adults should be submitted in alcohol only as a last resort. Wing color patterns may be critical for identification and these are often destroyed in alcohol. After killing in a kill jar or by freezing, adult Lepidoptera should be placed in a container lined with soft paper towels or facial tissue such that the specimens will not shift around during shipment. Where numerous specimens are to be sent, several layers of insects and paper may be placed in a shipping box. Larvae of the Lepidoptera should be killed in boiling water and transferred after 1-2 minutes into 70-75% alcohol. If boiling water is not available, place the specimens in alcohol as described under Coleoptera.
8. **ODONATA (dragonflies and damselflies), NEUROPTERA (lacewings, antlions, and dobsonflies), DERMAPTERA (earwigs)** and other miscellaneous orders not covered above can be sent dry or in alcohol. If sent dry, they should be carefully layered in tissue paper and packed so as not to break apart during shipping.

9. **ORTHOPTERA (grasshoppers, crickets, locusts, cockroaches, walkingsticks, and mantids)** are best collected into alcohol, either using a large vial or inserting into a small vial posterior end first. Grasshoppers and katydids inserted into a vial headfirst often cannot be extracted without breaking off the rear appendages.
10. **THYSANOPTERA (thrips)** must be shipped in alcohol. They are best collected by beating the host over a light and/or dark paper or cloth sheet and capturing with a wetted camel hairbrush from the beat sheet into alcohol. If the host is not a valuable one, the camel hair brush can be used to collect thrips directly from the host into the vial. If the host is a valuable specimen, the beat sheet should be used because the alcohol adhering to the brush may cause damage to the host. Try to collect adults specimens with wings, as identification of larvae is often impossible.

### **GYPSY MOTH SAMPLES**

Submit a lab sample when evidence of any life stage is found. Use the following procedures when submitting egg masses for confirmation:

- When removing egg masses, use a solution made up of ¼ cup of laundry detergent (Tide, etc.) to one quart of water. This solution will not assure 100% mortality, but it will reduce the hazard of viable eggs falling from the egg mass during removal and prevent scattering of eggs.
- Place the egg mass in a container filled with alcohol. Do not use the detergent solution. Write on the PDR under "REMARKS" if the eggs were examined and were found filled with fluid. All specimens submitted in the manner described above will be identified as viable or non-viable by the lab.
- Fill out a PDR on all gypsy moth specimens whether or not they appear to be alive. Before submitting specimens, assure that all life stages are dead. In the "REMARKS" section of the PDR include the following information:
  - If egg mass, whether they were examined and filled with fluid
  - County or border station name
  - Number of the Gypsy Moth Rejection Warning Notice ([Form 66-008A](#))
  - If out-door household articles (OHA) document was present or absent

Affix the gummed number label from the PDR slip to the copy of the 66-008A that is mailed to Sacramento.

### **3.8.2 WEED SAMPLES**

Plant specimens in plastic bags or bottles always run the risk of arriving at the laboratory decomposed or "cooked" beyond recognition. The preferred way to send a plant specimen to the Botany (Weed) Laboratory is to place the specimen between sheets of folded newspaper. Don't use tape or staples; they aren't needed and only get in the way.

Put the specimen in a manila envelope, or a flat box. A very good shipping container can be made from two pieces of corrugated cardboard. Place the specimen and the PDR slips between the two pieces of cardboard and then seal with shipping tape around the edges. The mailing label is placed on the outside and it's ready for mailing. Several counties have used this method for years with excellent results.

Even very delicate aquatic plants such as hydrilla or elodea should be sent this way. If the newspaper becomes soggy, you should change the paper, perhaps several times, to remove the excess moisture before sending the specimen. This will help to dry it out and keep it from rotting while in transit.

**Reminder:** A weed specimen can never become too dry. Dry plant material can always be examined and identified by a plant taxonomist, but nothing can be done with a soggy, moldy and decomposing specimen.

### 3.8.3 SEED SAMPLES

#### A. NOXIOUS WEED SEEDS

Seeds for quarantine purposes should be collected and submitted in the same manner as regulatory seed samples. The California Seed Law lists the appropriate amount of seed necessary for an exam.

Seed that is treated (includes those treated with pesticides, fertilized, pelletized, coated, or dyed) **shall be placed in plastic bags**. If samples are not in plastic, the sample may not be processed.

If the sample is a seed mixture, a copy of the seed label with the percentages of the components shall be submitted.

A sample submitted as a quarantine/regulatory sample must have both an Inspector's Description of Sample (Official Sample Form) and a PDR with the following:

- One PDR per sample.
- Note the origin of the seed (as well as where it was shipped from and the destination).
- Remember to fill the shipment size of the lot shipped/received. Also, include the size of the container (e.g., 20/50 #, or 1,000 #/50 # - not 20 sacks)
- Host/Crop section - enter the type of crop (e.g., tall fescue, not "grass seed")
- In the REMARK section of PDR, enter Lot Number, Type of treatment, etc., Signal words-Noxious Weed Exam, Rush and Fax or Phone number of County contact (not the seed company).
- Mark the PDR number clearly on the outside of the sample container. Do not place paper work inside the sample container.

#### B. MILL APPROVAL

Samples are best submitted in brown paper bags (double-bagged if necessary). Mark the PDR number clearly on the outside of the sample container. Write one PDR with the following "Remarks:"

- If sample is processed (cracked, ground, rolled, pelletized, heat treated, etc.), use the words - Mill Approval, check for viable weed seeds.
- If sample is unprocessed, use the words - Mill Approval, check for noxious weeds.

Do not place paper work inside the sample container.

#### C. INDIVIDUAL SEED FOR IDENTIFICATION

Seed samples may be submitted in any appropriate seed container. Do not place the samples in alcohol. Provide sample origin information on the PDR. Mark the PDR number clearly on the outside of the sample container.

### 3.8.4 SOIL RESIDUE SAMPLES

1. Take 10 one-quart samples from each shipper. If 10 one-quart samples cannot be taken, take as many one-quart samples from each shipper as possible (up to 10 quarts).
2. Samples should be taken from larger pots (> 1gallon).
3. Gather soil from one pot for each sample in order to test uniformity of treatment procedures over different pots. Pull root balls from the container and shave off soil from the bottom and sides of root ball area. Replace the plants and add potting media to refill the container to its original level.

4. Place soil samples in foil bags for analysis. If you run out of foil bags, use glass containers. Do not use plastic as this can interfere with results. As well, be aware that light and heat degrade some elements/chemicals. Keep samples cool, covered, and submit them ASAP or keep them in a refrigerator or freezer.
5. Use one laboratory form ([Form 11-002](#)) for each sample. Label samples with the name of collection site e.g. production nursery and an identifying number (e.g., XYZ Nursery, #1 of 10). A permanent ink marker (e.g., Sharpie pen) will write on the foil bags, however, you may use any kind of adequate tape or paper label. For maintaining identity, be sure that the number of the sample corresponds to the sample number written on the lab form that accompanies it.
6. Record all information that may be useful in properly identifying the sample.
7. Use one form for each soil sample. Samples may be driven to the lab or sent via expedited delivery.

### 3.8.5 DOCUMENTATION AND GENERAL LABORATORY GUIDES

#### FILLING PEST AND DAMAGE RECORD

The Pest and Damage Record (PDR) must be entered into the database [online](#).

- Enter county number, activity code and situation. Leave remainder blank if quarantine shipment.
- If a Botany sample, include range, township and section.
- Check correct box at top for routing to the appropriate specialist.

Insects: if two kinds of specimens in one vial, state that in remarks section. If more than two, use another vial and fill out another PDR.

Disease Pathogen Or Nematode Specimens-refrigerate to keep fresh.

Weed specimens-send best possible specimen. If seeds are present, send to seed lab.

- Complete name, address, date, collector's name and section as accurately as possible.
- Always indicate the host for an insect specimen. This is especially important when found on an unexpected host. Include the botanical name and variety of host plant if known, for nematode samples.
- If sending to plant pathology, check off appropriate symptoms. If an insect, check condition and stage when found. Appropriate symptoms are useful for insect samples also. Write in pertinent information in remarks section (never write in "determination" section if holding a shipment pending I.D., write "RUSH-QUARANTINE" to expedite).
- Write in county name.
- Attach I.D. # to specimen.

#### Plant Pest and Damage Record (PDR) Internet Access:

Inquiries regarding the status of a PDR for plant diseases may be accessed online. The Pest and Damage Record information is acquired by entering the PDR number in the search section.

#### Some General Notes on Filling Out PDR Slips

- The city should be the location of the collected specimen. Do not abbreviate city names
- If the specimen was collected during a quarantine inspection, we need the quarantine origin
- Always state the host from which the specimen was collected. This may not always be plant material; it may be a building or a home

- A PDR filled out as completely as possible increases the accuracy of record keeping. Slips appropriately marked "RUSH" are handled expeditiously.
- Enter your first and last name on PDR. This helps the lab to credit the collector in publications dealing with new or otherwise important collections.
- Use correct activity codes:
  - Quarantine inspections use codes beginning with "0"
  - Nursery inspections use codes beginning with "7"
  - Detection surveys use code "12"
  - General situations use code "10."
  - (These usually involve "walk-ins" by members of the public)

#### **Things to Be Aware Of When Submitting Insect Specimens to the Lab:**

- Nothing should be sent to the lab alive unless first approved by the entomologist involved.
- There should be enough alcohol in the vial to cover the specimen and then some (See Gastropoda above). If not properly preserved the specimen can degrade/rot by the time it is received and unidentifiable. It can also become very smelly!
- When submitting insects collected in sticky traps, cut out a small piece of the trap (e.g., with a razor blade) containing the suspect insect. Submit that piece in a small vial. The piece of the insert should be cut to a size that will minimize movement inside the vial during mailing. DO NOT submit entire large trap inserts, these are cumbersome, messy, and confusing as to what needs to be identified. Submit ONLY the small piece with the specimen to be identified. However, there are some exceptions in rare survey projects where an entire trap must be inspected.
- Please make sure each vial or trap has a corresponding PDR # attached to it.
- Please submit specimens in clear vials or bottles and make sure the corresponding PDR number is attached lengthwise to that vial or bottle. This facilitates viewing of the specimen.

#### **Links to recent Pest Exclusion Advisories (PEA)**

[PEA 24-2005](#)

[PEA 35-2004](#)

[PEA 31-2003](#)

[PEA 24-2003](#)

## **3.9 EXAMPLES OF CERTIFICATES**

### **3.9.1 FEDERAL DOMESTIC QUARANTINE CERTIFICATES AND PERMITS**

Various certificates and permits are used in federal domestic plant quarantine for the control or eradication of a pest in a state. Below are select certificates and permits that should be accepted by all State/County Regulatory Officers as notification of meeting the quarantine requirements in effect at point of origin.

1. Individual shield-type package certificates are in several forms, including a 2" x 3" paper certificate, a rubber stamp, a postage meter certificate, or may be printed on receipts, cartons or shipping labels when authorized. Printing dyes may be furnished by the Department on loan to approved shippers and returned when a printing order is completed.

2. Master certificate is used for car or truck lot shipments and will accompany the bill of lading or other shipping documents. This certificate will describe the contents and quantity of the shipment.
3. Limited permit authorizes movement of non-certified regulated articles without diversion to specified destinations for
  - Limited handling, processing or treating
  - Safe utilization or consumption

The above certificates are uniform for most federal domestic quarantines and cover large percentage of regulated movement. However, there may be special purpose certificates for specific programs such as barberry nursery, the gypsy moth, stone and quarry, scientific purpose certificates. The use of the later forms are usually not frequent.

### 3.9.2 MATERIAL ORIGINATING IN FEDERAL DOMESTIC QUARANTINE AREAS

The USDA/APHIS/PPQ advises it is safe to assume commercial shipments of plant material moving from a federal domestic quarantined area to a non-quarantined area for packaging and mailing have met the federal quarantine certification requirements.

Uncertified commercial shipments of plant material mailed from a non-regulated area, even though material originated in a regulated area, may be admitted if inspection findings are negative.

Material covered under a California quarantine would be required to meet conditions of the California quarantine, if the material originated in Florida and was reshipped from New York, it would need a Florida certificate.

Plant material shipped directly from a federally regulated area would require federal certification;

Examples of commercial shipments of material not requiring federal certification:

- Okra originating in Imperial County being reshipped from Los Angeles County
- Plants originating in Georgia being reshipped from Illinois

### 3.9.3 CERTIFICATION - VERIFICATION BY ONE STATE FOR ANOTHER STATE

Mail-order houses, and some nurseries, purchase plant material from many states and then transship to California. For quarantine purposes it is important to know the origin of the material. The following examples may be used as guides in processing plant material in regards to origin:

1. Minnesota officially certified *Anthurium* originated in Florida. Burrowing nematode certificate accompanied shipment from Florida, acceptable.
2. Minnesota shipper stated maple tree originated in Pulaski County, Arkansas. Maple is acceptable, as no California exterior quarantine involved.
3. Minnesota shipper stated maple tree originated in Arkansas, not acceptable. California exterior quarantine indicates portion of state is under quarantine.

4. Minnesota official certified maple tree originated in Arkansas and an ozonium root rot certificate accompanied shipment from Arkansas, acceptable.
5. Permission has been given to some states to certify materials coming into CA. Such certificate must bear "Meets the requirements of California quarantine Sections ...". This statement will be on the certificate from the origin state.

#### **3.9.4 COMMUNICATIONS WITH OTHER STATES**

Correspondence with nurseries, individuals and officials of other states, relating to the rejection or certification of plant materials, signed as "Agricultural Commissioner" may cause confusion.

To write to persons in other states relative to rejection or certification of plant materials or other plant quarantine matters, letters should be signed as "State Plant Quarantine Officer", which is the designation in the Agricultural Code. Only those person holding plant quarantine certificates may legally sign rejection notices, State phytosanitary certificates or certificates of quarantine compliance.

Matters pertaining to policy or rulings on controversial points relative to plant quarantine matters should always be referred to CDFA Pest Exclusion for reply.

Correspondence relative to rejections or policies already in effect need not be referred to this office for reply, but copies should be forwarded for information purposes.

#### **3.9.5 CERTIFICATE OF QUARANTINE COMPLIANCE (ORIGIN OR TREATMENT)**

Certificate of Quarantine Compliance (CQC) is issued to agricultural commodities and/ or products requiring treatments as a condition of entry into the destination state. This certificate should be used to certify material to any state or territory that may have an existing quarantine against a pest from California, e.g. brown garden snail quarantine by FL. Some destination states/territories at times specifically request that they want a state phytosanitary certificate instead of CQC. State phytosanitary certificate should be issued to shipments to states that do NOT have an existing quarantine against a pest in California and made no specific request that requires issuance of CQC, in their regulations.

The California Department of Food and Agriculture and County Agricultural commissioners may enter into an agreement with a person or persons who meet prescribed qualifications, authorizing said person to treat said articles and issue a "Statement of treatment" as required in the agreement. Such treatments must:

1. Be done in a state approved treatment facility
2. Comply with all federal, state and county regulations and meet destination state/county requirements.
3. Follow recommended schedules prescribed for the commodity, as to material, exposure time, temperature, and humidity (if applicable). Necessary safety equipment must be available.

#### **3.9.6 NOTICE OF REJECTION**

Please see the advisory linked below on information regarding NOR's

[http://www.cdfa.ca.gov/countyag/postings/files/PEA\\_03-2013\\_New\\_1.pdf](http://www.cdfa.ca.gov/countyag/postings/files/PEA_03-2013_New_1.pdf)

### 3.9.7 MONTHLY REPORT 4/4A INSTRUCTIONS

#### [Report 4 Instructions and Definitions](#)

Submit Monthly - Original to Pest Exclusion, Sacramento

#### [Report 4a Instructions and Descriptions](#)

## 3.10 CONTRABAND DISPOSAL

The risk of spreading pest infestations continues up to and including the final disposition of the contraband. This can include but is not limited to spoiled, discarded, or confiscated fruit fly hosts and fruit processing wastes; infested soil, potting material, and nursery stock; ballast, dunnage, shipping crates or other packing materials; and any organic or inorganic products deemed infested.

Contraband disposal can be accomplished by:

- Autoclaving/sterilization
- Burying (on site or in an approved landfill)
- Burning
- Freezing
- Fumigation
- Grinding
- Irradiation

## 3.11 COMMODITY TREATMENT

Specific commodity treatment needs are outlined in CDFA's [Commodity Treatment Manual](#) (*login Access required!*). It is complementary to the [USDA/ APHIS/ PPQ Treatment Manual](#).