

NIPM Item# 6

Regulations for Nursery Stock Nematode Certification

The following is a reprinting of the regulations for the certification of nursery stock for cleanliness with respect to nematodes, found in California Code of Regulations, Title 3, Division 4, Chapter 3, Subchapter 2: Nursery Stock, Article 10: Nursery Stock Nematode Certification.

3055. Disclaimer of Warranties and Financial Responsibility.

The provisions of Section 3069 shall apply to this article.

Note: Authority cited: Sections 407 and 5823, Food and Agricultural Code.
Reference: Sections 5821 and 5822, Food and Agricultural Code.

3055.1. Definitions.

- (a) "Approved treatment" means any soil preparation, treatment, and post-treatment recontamination preventative measures that are approved, documented, and supervised by the Department as a means of producing nursery stock free of nematodes.
- (b) "Soil" includes, but is not limited to, what is generally known as soil, mixtures of soil and horticultural soil amendments, and horticultural soil amendments alone, as blends, or as mixtures, used as a plant growing medium.
- (c) "Approved laboratory methods" means any soil sampling plans; growing plot or sample identification methods; sample protection, transportation, and processing methods; nematode extraction methods; and nematode diagnostic procedures approved by the Department to test soil and plants for the presence of nematodes.
- (d) "Free of nematodes" means free of nematodes consistent with the capacity of the approved treatment and approved laboratory methods prescribed in this article respectively to yield nursery stock free of nematodes or to detect low level nursery stock nematode infestations. It does not mean complete freedom and nematodes may be present consistent with the limitations inherent to the prescribed approved treatment and approved laboratory methods.
- (e) "Nematode" means nematode species that the Department determines to be economically important.
- (f) "Participant" means any person for whom the Department has approved an application for nursery stock nematode certification.
- (g) "Program" means the nursery stock nematode certification program administered by the Department pursuant to these regulations.
- (h) "Department" means the California Department of Food and Agriculture, the Secretary of Food and Agriculture, and its agents, employees, or representatives.

Note: Authority: Sections 407 and 5823, Food and Agricultural Code.
Reference: Sections 5821 and 5822, Food and Agricultural Code.

3055.2. General Provisions.

- (a) California grown nursery stock may be certified to nematode cleanliness when grown and handled in accordance with the procedures outlined in this article.
- (b) Participation in this program is voluntary and may be withdrawn at the option of the applicant.

(c) Approvals, inspections, tests, supervision, determinations, and certifications shall be conducted by the Department or its authorized agents.

(d) Refusal, Suspension, or Termination of Certification.

The Department reserves the right to refuse certification services to anyone and may refuse, suspend, or terminate certification for part or all of a planting if:

- (1) The requirements of this article have not been met; or,
- (2) Participant responsibilities specified in this article are not met; or,
- (3) Any condition which hinders or prevents proper treatment, approval, field or plant sampling, or laboratory nematode diagnostics; or,
- (4) A planting or part of a planting is found to be nematode infested; or,
- (5) The identity of the stock becomes uncertain or has not been properly maintained; or,
- (6) Indicia of certification are misused or stock is misrepresented.

Note: Authority: Sections 407 and 5823, Food and Agricultural Code.
Reference: Sections 5821 and 5822, Food and Agricultural Code.

3055.3. Participant Responsibilities.

All participant responsibilities specified in this article shall be performed at the expense of the participant. The participant shall be responsible for:

- (a) Application for nursery stock nematode certification.
- (b) Selection of planting location(s).
- (c) Soil treatments.
- (d) Post-treatment cultural and sanitation practices necessary to help prevent nematode recontamination.
- (e) Notifying the Department of the date of all pest control treatments in plantings for which inspections are scheduled, the product used, dosage and any re-entry or worker safety requirements which apply. This notification is required to assure that approvals and inspections may be made properly and in accordance with state law governing worker health and safety for pesticide exposure. Such notification need not be made at times when inspections are not scheduled.
- (f) Proper use of all official indicia of certification provided by the Department.
- (g) Compliance with the requirements of this article and with all other applicable laws and regulations.

Note: Authority: Sections 407 and 5823, Food and Agricultural Code.
Reference: Sections 5821 and 5822, Food and Agricultural Code.

3055.4. Eligibility.

Any clearly identified block or lot of nursery stock being grown in soil which, at the time of application, can be determined to be free of nematodes may be entered for certification of nematode freedom at the time of harvest and/or sale. Nursery stock meeting the requirements of this article shall be eligible for certification using official indicia of certification for a period of not more than two growing seasons after

approved soil treatment and planting; or, 12 months after the nursery stock has been determined to be free of nematodes based on approved laboratory methods. In either of the foregoing cases, eligibility will be invalidated if, after harvest, nursery stock is stored in untreated soil or otherwise exposed to nematodes.

Note: Authority: Sections 407 and 5823, Food and Agricultural Code.
Reference: Sections 5821 and 5822, Food and Agricultural Code.

3055.5. Certification.

The Department will issue and authorize the use of official tags, seals or other indicia of certification on nursery stock which meets the requirements of this article. Nursery stock may be certified for nematode freedom in accordance with subsection (a) or (b) below.

(a) Certification Based on Approved Treatment.

Certification based on approved treatment involves the planting of nursery stock (including seed, unrooted cuttings, rooted cuttings, plantlets or seedlings) in approved treated soil and protecting it against nematode contamination until harvest and sale. Rooted planting stock must be determined to be free of nematodes using approved laboratory methods prior to planting in approved treated soil. Prescribed soil preparation requirements must be documented and approved chemical treatments must be both supervised and documented by the Department. All documentation and required supervision may be performed at the time of treatment.

(1) Field Treatment.

(A) Pre-Treatment Soil Preparation.

1. Trash Removal.

Plant material must be removed and the planting site shall be disced to reduce the size of trash remaining so that the treatment will be effective. Both trash removal and discing shall be performed to the satisfaction of the Department.

2. Waiting Period.

A clean-fallow period shall be maintained, after trash removal and before treatment, as follows:

- a. Not less than 24 months following removal of an orchard or vineyard that has been in place for more than one year.
- b. Not less than nine months following removal of a previous woody nursery crop which has been in place for more than one year.
- c. Not less than six months following removal of a nematode host crop which has been in place for less than one year.
- d. No waiting period is required after the removal of an annual vegetable plant crop.

3. Soil shall be worked to a depth of two to three feet to break up hardpan or plowsole. Soil moisture and cultivation shall be adequate to render the soil in seed bed condition.

(B) Treatment.

All applications of pesticides must be made in compliance with the applicable laws and regulations.

1. Soil temperature at depth of injection shall be between 40°F and 80°F. If the soil temperature is above 80°F, but 85°F or less, the dosage of methyl bromide should be increased by 5% over the minimum specified by the Department.

2. Materials and Schedules of Dosages.

The rate per acre for the fumigant used shall not be less than the minimum prescribed by the Department. Treatments for soils containing more than 30% clay may not be approved.

3. Treatments in accordance with these procedures shall be good for 18 months from the date of treatment to planting date provided that the treated area is clean-fallowed and otherwise not exposed to nematode reinfestation.

4. Application methods include dual application, tarping (solid and strip), or any other suitable method as approved by the Department. The tarp used in a methyl bromide fumigation shall remain in place for 48 hours.

5. Any lot of rooted nursery stock which has not been approved in the nematode control program must be sampled using approved laboratory methods, and found to be free of nematodes, prior to planting in approved treated soil.

6. Nursery stock produced in accordance with these approved procedures shall be stored, healed-in, or calloused in media, beds, or storage areas approved by the Department. Treatments may be required to protect against nematode infestation.

(2) Container, Flat, and Frame Grown Nursery Stock.

All soil, containers, flats, and soil within frames shall be treated prior to planting. Following treatment, the soil and containers shall be protected from reinfestation by nematodes. The following are approved treatments:

(A) Aerated steam in a closed chamber until all soil reaches a temperature of not less than 140°F and is maintained for not less than 30 minutes; or,

(B) Steamed in a closed chamber until temperature of all soil reaches 180°F; or,

(C) Fumigated under a plastic tarpaulin or in a gas-tight chamber for 24 hours using two pounds of methyl bromide per 100 cubic feet. Soil temperature shall not be lower than 50°F at start of treatment.

(b) Certification Based on Approved Laboratory Methods.

The following, or other, laboratory methods approved by the Department shall be used to determine nematode freedom. Any sample in which nematode is detected shall be considered infested and not eligible for certification under the provisions of this article unless there is a Department-approved eradication treatment and the participant so treats the nursery stock.

(1) Field Grown Nursery Stock, Generally.

Collect samples on a 40 foot x 40 foot grid interval throughout the planting. Samples may be composited on an acre or nursery stock variety basis. Alternatively, at the discretion of the Department, samples may be collected on an 80 foot x 80 foot grid interval and composited on a two-acre basis when either of the following conditions have been met:

(A) The planting site has been treated at the product labeled rate for the kind of nursery stock being produced.

(B) No nematodes have been found by laboratory methods in the previous two successive nursery crops on the growing site.

(2) Container, Flat, and Frame Grown Nursery Stock.

A composite sample is to be obtained from every 100 square feet of bench or frame space. Each sample should be kept to a logical and practical size as determined by the Department.

(3) Delimitation.

When an original sample is positive for nematodes, delimitation sampling may be performed on a 20 foot x 20 foot grid interval with samples composited on a 1/4-acre basis. All delimitation shall be done at the Department's discretion. Any nursery stock represented by a delimitation sample in which a nematode is detected is considered infested. Any nursery stock represented by a delimitation sample that is free of nematodes shall be eligible for certification.

(4) Bare root sampling may be performed using procedures approved by the Department.

Note: Authority cited: Sections 407 and 5823, Food and Agricultural Code.
Reference: Sections 5821 and 5822, Food and Agricultural Code.

3055.6. Application and Fees.

(a) Application.

The applicant shall furnish any information requested regarding the planting and shall consent to the taking of samples by the Department for inspection or testing purposes. The required fees shall accompany each application submitted.

(1) An application for approval of a soil treatment shall be submitted with the Department 15 days prior to the planned start of treatment to allow for scheduling of inspections and to verify stock eligibility.

(2) An application for testing using approved laboratory methods shall be submitted to the Department by not less than 15 days prior to the month in which sampling must be performed to allow for workload scheduling.

(3) A late application may be accepted as workload, scheduling, and staffing permit. If workload, scheduling, or staffing do not allow for required testing using approved laboratory methods, a late application will be refused.

(b) Fees.

Fees established by this article are payable in advance of the work to be done and are for the sole purpose of defraying expenses incurred in the approval, inspection, sampling, and determination procedures and are not to obtain any right or privilege.

(1) The Department shall establish a schedule of fees for the services provided in this article based upon the approximate cost of the services rendered.

(2) The Department may charge additional fees when due to conditions, total acreage entered, or number of samples and/or determinations made, the fees established will not cover the cost of the service.

(3) The Department may establish a late fee for applications.

(4) Fees paid for services that are not rendered shall be refunded to the applicant provided, however, that amounts refunded may be prorated based on the amount of work actually performed by the Department in the administration of the requirements of this article.

(c) Fee Schedule.

(1) The Secretary of Food and Agriculture, pursuant to Section 5822 of the Food and Agricultural Code, hereby establishes fees for inspections, including sampling and testing, and special treatments for the nursery stock nematode certification program. The fees shall be:

(A) Supervision of Soil Treatments.

1. \$45.00 per hour per site when the application is postmarked a minimum of fifteen (15) days prior to initiation of the treatment.
2. \$100.00 late fee plus \$45.00 per hour per site when the application is postmarked less than fifteen (15) days prior to initiation of the treatment.

(B) Sampling. \$45.00 per hour.

(C) Testing. \$40.00 per sample submitted.

(D) Supervision of Commodity Treatments.

1. \$45.00 per hour when application is postmarked a minimum of fifteen (15) days prior to initiation of the treatment.
2. \$100.00 late fee plus \$45.00 per hour when application is postmarked less than fifteen (15) days prior to initiation of the treatment.

(2) When calculating service charges, the hourly rate shall be applied to travel time (portal to portal), field time, and documentation time.

Note: Authority cited: Sections 407 and 5823, Food and Agricultural Code.
Reference: Section 5822, Food and Agricultural Code.