

(1) *Fumigation and aeration.* The approved fumigation shall consist of fumigation with methyl bromide at 70° F. or above at normal atmospheric pressure in a fumigation chamber that has been approved for that purpose by the Plant Protection and Quarantine Programs. The fumigation may also be accomplished under tarpaulins, in a manner satisfactory to the inspector, that will insure adequate air circulation and proper volatilization, distribution, and concentration of the fumigant. The fruit may be packed in field boxes, slatted crates, or well-perforated, unwaxed cardboard cartons with approved packing material such as wood excelsior or cardboard dividers. The fruit may be individually wrapped with conventional tissue which is gas permeable. When stacking the fruit for fumigation, spacing must be provided to insure adequate gas circulation. The load shall not exceed 80 percent of the volume of the area under fumigation. Following the fumigation, an aeration period of 2 hours is required.

(2) *Precooling and refrigeration period.* At the conclusion of the aeration period, the fruit shall be precooled and refrigerated in approved facilities for any one of the periods designated in the table in this section. Cooling shall begin as soon as possible after the aeration period, but in no event may the time lapse between the termination of fumigation and the beginning of the precooling exceed 24 hours. Cooling to the required refrigeration temperature shall be effected as soon as possible. The refrigeration period shall not commence until the fruit pulp temperatures indicate the prescribed temperature range has been reached.

(c) *Supervision of treatment and subsequent handling.* The treatment approved in this section and the subsequent handling of the fruit so treated must be conducted under the supervision of an inspector of the Plant Protection and Quarantine Programs. If any part of the treatment is conducted in the country of origin, the organization requesting the service must enter into a formal agreement with this Plant Protection and Quarantine Programs to secure the services of an inspector.

(d) *Costs.* All costs of treatment, required safeguards, and supervision of treatments by the inspector shall be borne by the owner of the fruit, or his representative, when the treatment is given in foreign countries. There is no charge for supervision of treatments given at authorized U.S. ports of entry during regularly scheduled hours of duty.

(e) *Department not responsible for damage.* The treatment prescribed in paragraph (b) of this section is judged from limited experimental tests to be safe for use with fruits likely to be infested with the Mediterranean fruit fly or the oriental fruit fly, or with the grape vine moth or other pests of grapes or other fruits from Chile. However, the Department assumes no responsibility for any damage sustained through or in the course of the treatment. There has not been an opportunity to test the treatment on all varieties of fruits that may be offered for entry from various countries. It is recommended that the phytotoxicity of the treatment to the variety to be shipped shall be tested by exporters in the country of origin or by means of test shipments sent to this country.

[35 FR 283, Jan. 8, 1970, as amended at 36 FR 24917, Dec. 24, 1971. Redesignated at 50 FR 9788, Mar. 12, 1985; 50 FR 10750, Mar. 18, 1985]

§ 319.56-2o Administrative instructions prescribing method of treatment of avocados for the Mediterranean fruit fly, the melon fly, and the oriental fruit fly.

Fumigation with methyl bromide at normal atmospheric pressure followed by refrigerated storage in accordance with the procedures described in this section is effective against the Mediterranean fruit fly, the melon fly, and the oriental fruit fly in avocados but is not effective against other dangerous pests of this fruit. Accordingly, this treatment will be approved for treatment of avocados in connection with the issuance of permits under § 319.56-4 for the importation of avocados from any country when it is determined that the pest risk involved in the proposed importation is such that it will be eliminated by this treatment.

(a) *Ports of entry.* Avocados offered for entry will be regulated by one of the following provisions:

(1) Avocados certified as having received the combined fumigation-refrigeration treatment in the country of origin immediately prior to shipment are enterable at all ports under permit.

(2) Avocados certified as having been fumigated in the country of origin and which are receiving the refrigeration storage on board approved transiting vessels are enterable at the U.S. ports named in the permit upon completion of the refrigerated storage period.

(3) Avocados which have not been treated are enterable at the ports named in the permit for treatment upon arrival.

(b) *Approved treatment.* The phases of the combination treatment shall consist of fumigation and aeration; and a precooling and refrigeration period.

(1) The fumigant shall be methyl bromide applied at normal atmospheric pressure in an enclosure which has been approved for that purpose by the Plant Protection and Quarantine Programs. The dosage shall be two pounds per 1,000 cubic feet for 2½ hours at 70° F. or above. At the conclusion of the 2½-hour exposure period, the avocados shall be aerated for minimum of 30 minutes. Avocados to be fumigated shall be restricted to fruit at the mature green stage of development and be arranged in ventilated wooden boxes, without packing material or wrappings. Fumigation chambers should not be loaded to more than two-thirds of their capacity. Tarpaulin enclosures should not be loaded to more than 80 percent of their capacity. The 2½-hour exposure period shall begin when all the fumigant has been volatilized and introduced into the enclosure. Forced circulation above and below the load, and between individual containers, shall be provided as soon as the avocados are loaded in the chamber and shall continue during the full period of fumigation and until the avocados have been removed to a well ventilated location.

(2) The refrigerated phase of the treatment shall consist of refrigeration for 7 days at 45° F. or below. Cooling of the fruit must begin within 24 hours following the fumigation. The refrigerated storage shall consist of 7 days at fruit pulp temperature of 45° F. or below. The time required to cool the pulp temperature to 45° F. or below may be included in the 7-day period provided the cooling is accomplished in 24 hours or less. Temperature sensors inserted in the avocados will determine when pulp temperatures have reached 45° F. or below.

(c) *Supervision of treatments and subsequent handling.* The treatment approved in this section and the subsequent handling of the avocados so treated must be conducted under the supervision of an Inspector of the Plant Protection and Quarantine Programs. If any part of the treatment is conducted in the country of origin, the organization requesting the service must enter into a formal agreement with this Plant Protection and Quarantine Programs to secure the services of an inspector.

(d) *Costs.* All costs of treatment, required safeguards, and supervision of treatments by the inspector shall be borne by the owner of the avocados or his representative when the treatment is given in foreign countries. There is no charge for supervision of treatments given at authorized U.S. ports of entry during regularly scheduled hours of duty.

(e) *Department not responsible for damage.* The treatment prescribed in paragraph (b) of this section is judged from experimental tests to be safe for use on avocados at the mature green stage of development. However, the Department of Agriculture assumes no responsibility for any damage sustained through or in the course of treatment. There has not been an opportunity to test the treatment on all varieties of avocados that may be offered for entry from various countries. It is recommended that the phytotoxicity of the treatment to the variety to be shipped shall be tested by exporters in the country of origin or by means of test shipments sent to this country.

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