

1970 Insecticide Recommendations

EXTENSION DIVISION
VIRGINIA POLYTECHNIC INSTITUTE

PESTS OF GREENHOUSE TOMATOES

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CULTURAL PRACTICES: However effective new insecticides may be, good cultural practices, sanitation, and soil sterilization are essential for reducing or eliminating diseases, as well as insect pests, and for preventing their continued damage to succeeding crops of greenhouse tomatoes. A good sanitation program is important. Keep weeds under control and maintain clipped lawns in the immediate area of the greenhouse. Inside the greenhouse, collect and dispose of trash, including plant debris, to eliminate breeding or hiding places for slugs and sowbugs. To destroy insects and other pests, nematodes, and pathogenic organisms, sterilize the soil by heating it with steam at 180 degrees F. for 4 hours. Sterilize tools, pots, flats, and small lots of soil. Take precaution to avoid reinfestation of sterilized soil by means of dirty, and contaminated hands, tools, and shoes. A well-planned control program can frequently prevent development of damaging populations of insects and other pests in succeeding crops of greenhouse tomatoes. After harvesting the crop, destroy pests on the old tomato plants with a recommended insecticide.

* **APHIDS, MEALYBUGS, AND WHITEFLIES**

MALATHION: Use 10% malathion aerosol at the rate of 1 lb. aerosol to 50,000 cu. ft. in large greenhouses. Apply, as needed, in the closed greenhouse in the air above plants, when the temperature is 70 degrees to 85 degrees F. Keep ventilators closed for at least 2 hours.

OR

In small greenhouses, treat foliage as needed, with a spray prepared by mixing 2 tsp. of 57% malathion emulsion concentrate to 1 gal. of water.

SAFETY PRECAUTIONS: See "Keys to Proper Use of Pesticides."

RESIDUE TOLERANCE: 8 ppm.

WAITING PERIOD: Fifteen hours when aerosol is used and one day when spray is used, from last application to harvest.

* Insecticides other than those recommended here, have label approval for use in control of this pest; use them according to label directions.

LEAF MINER

****ENDOSULFAN (Thiodan):** Use 10% endosulfan aerosol at the rate of 1 lb. aerosol to 50,000 cu. ft. in large greenhouses. Apply as needed, in tightly closed greenhouse, in the air above plants, where the temperature is 70° to 80° F. Leave the greenhouse tightly closed for at least 2 hours.

Proportionately smaller amounts of endosulfan should be applied in the same manner in smaller greenhouses.

SAFETY PRECAUTIONS: See "Keys to Proper Use of Pesticides."

RESIDUE TOLERANCE: 2 ppm.

WAITING PERIOD: 15 hours from interval applications to harvest.

MITES, THRIPS

MALATHION: Use 10% malathion aerosol at the rate of 1 lb. aerosol to 50,000 cu. ft. in large greenhouses. Apply, as needed, in the closed greenhouse in the air above plants, when the temperature is 70 degrees to 85 degrees F. Keep ventilators closed for at least 2 hours.

OR

In small greenhouses, treat foliage as needed, with a spray prepared by mixing 2 tsp. of 57% malathion emulsion concentrate to 1 gal. of water.

(In areas where mites appear to be resistant to malathion, substitute one of the other miticides with label approval for this purpose.)

SAFETY PRECAUTIONS: See "Keys to Proper Use of Pesticides."

RESIDUE TOLERANCE: 8 ppm.

WAITING PERIOD: Fifteen hours when aerosol is used and one day when spray is used, from last application to harvest.

* Insecticides other than those recommended here, have label approval for use in control of this pest; use them according to label directions.

** EXTREMELY POISONOUS. If you become ill while or after using, call a physician immediately.

Control Series 26
Cooperative Extension Service
January 1970

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U. S. Department of Agriculture. W. E. Skelton, Dean, Extension Division, Cooperative Extension Service, Virginia Polytechnic Institute, Blacksburg, Virginia 24061.

TOMATO FRUITWORM, CLIMBING CUTWORMS

MALATHION: Use 10% malathion aerosol at the rate of 1 lb. aerosol to 50,000 cu. ft. in large greenhouses. Apply, as needed, in the closed greenhouse in the air above plants, when the temperature is 70° to 85° F. Keep ventilators closed for at least 2 hours.

OR

In small greenhouses, treat foliage as needed, with a spray prepared by mixing 2 tsp. of 57% malathion emulsion concentrate to 1 gal. of water.

SAFETY PRECAUTIONS: See "Keys to Proper Use of Pesticides."

RESIDUE TOLERANCE: 8 ppm.

WAITING PERIOD: Fifteen hours when aerosol is used and one day when spray is used, from last application to harvest.

CUTWORMS IN THE SOIL

MALATHION: Apply 4% or 5% malathion dust on surface of soil especially around tomato transplants. (A total of $\frac{1}{2}$ lb. of the 4% or 5% dust per 1,000 sq. ft. is adequate coverage.)

SAFETY PRECAUTIONS: See "Keys to Proper Use of Pesticides."

RESIDUE TOLERANCE: 8 ppm.

WAITING PERIOD: 1 day from last application to harvest.

GARDEN SYMPHYLAN

Garden symphillids are seldom a problem in greenhouse tomatoes in this state. These pests can be eliminated by sterilizing the greenhouse soil and following the recommendations mentioned under CULTURAL PRACTICES, page 1, of this publication.

*** SLUGS AND SNAILS**

**METALDEHYDE: Use a ready-prepared (commercial) metaldehyde bait, strictly according to manufacturer's label directions. Brand-name metaldehyde baits are readily available where insecticides are sold. (Usually 1/2 lb. of the prepared bait is adequate for 1,000 sq. ft. of surface.)

SAFETY PRECAUTIONS: Keep metaldehyde bait off tomato plants. See "Keys to Proper Use of Pesticides."

RESIDUE TOLERANCE: None established.

WAITING PERIOD: None established.

* Insecticides other than those recommended here, have label approval for use in control of this pest; use them according to label directions.

** EXTREMELY POISONOUS. If you become ill while or after using, call a physician immediately.

Trade and brand names are used only for the purpose of information and the Virginia Cooperative Extension Service does not guarantee nor warrant the standard of the product, nor does it imply approval of the product to the exclusion of others which may also be suitable.

KEYS TO PROPER USE OF PESTICIDES

1. Read the label on each pesticide container before each use. Follow instructions to the letter; heed all cautions and warnings, and note precautions about residues.
2. Keep pesticides in the containers in which you bought them. Put them where children or animals cannot get to them, preferably under lock and away from food, feed, seed, or other material that may become harmful if contaminated.
3. Dispose of empty containers in the manner specified on the label. If disposal instructions are not printed on the label, burn the containers where smoke will not be a hazard, or bury them at least 18" deep in a place where water supplies will not be contaminated.

SEE YOUR DOCTOR IF SYMPTOMS OF ILLNESS OCCUR DURING OR AFTER USE OF PESTICIDES.