

PESTS OF FLOWERS

Published By

THE NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

North Carolina State College of Agriculture and Engineering of the University of North Carolina and the U. S. Department of Agriculture, Cooperating. State College Station, Raleigh, N. C., D. S. Weaver, Director. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

> Reprinted From 1955 Pesticide Handbook

PESTS OF FLOWERS - 1955

H. E. SCOTT

Entomology

PLANT	PEST	CONTROL
ASTER	Aphid	Dust using 1% lindane. Spray using either $1\frac{1}{2}$ teaspoon- fuls 40% nicotine sulphate, 2 tablespoonfuls scap to 1 gal- lon of water or 1 tablesponful of 25% lindane wet- table powder to 1 gallon of water or malathion - $1\frac{1}{2}$ tablesponfuls per gallon of water.
	Tarnished Plant Bug Thrips	Use 5% DDT dust or spray with 50% DDT wettable pow- der at a rate of 1½ tablespoonfuls per gallon of water. Several applications may be necessary to protect valuable plants from these pests. See Gladious for field treatment.
CALENDULA	Aphids Leafhopper	See Aster. Dust or spray with DDT as for tarnished plant bug.
CHRYSANTHEMUM	Aphids Greenhouse Leaf Tier Tarnished Plant Bug Thrips Corn Earworm	See Aster. Spray or dust with DDT as for tarnished plant bug on Asters. See Aster. See Gladiolus for field treatment. Dust or spray using DDT
COLEUS	Mealy bugs	Malathion - 11/2 tablespoonfuls of 25% W. P. per gallon.
COLUMBINE	Borer	Cut out and burn as much of the infested plant as possi- ble. Probing with a flexible wire may kill some of the borers.
	Leaf miner	Spray with a nicotine sulphate and soap solution as for four-lined plant bug on Zinnia. The infestation may be reduced by picking and burning infested leaves.
DAHLIA	Four-lined Plant Bug Stalk Borer Tarnished Plant Bug	See Zinnia. Split stem and remove borer. See Aster.
GLADIOLUS	Fall Armyworm	Treat with either DDT or Toxaphene sprays or dusts. Aldrin or dieldrin is also effective.
	Thrips	On Corms - Infested corms can be freed of thrips by placing them in paper bags or covered boxes and dusting with 5% DDT at a rate of 1% oz. per bushel of corms.
		In the field - Use lindane 1% dust or a spray containing 1 tablespoonful of 25% lindane W.P. or 1½% dieldrin dust or a spray containing 2 teaspoonfuls of 50% dieldrin W.P. in 1 gallon of water.
HOLLYHOCK	Borer	A small amount of DDT solution may be injected into the tunnel opening and kill the borer. Otherwise splitting the stem and removing the borer is the only control measure.
IRIS	Borer	The young caterpillars at first feed on the leaves as minore causing terrehaped lesions. They here near the holy of the plant where the severe damage occurs. Spray as soon as damage to leaves is noted with either lead arsenate at 3 tablespoorfuls or DDT at 1½ tablespoorfuls of the 60% wettable powder per gallon of water. If the borers reach the roots, lift the plants after they bloom and re- move borers and all the damaged area.
LARKSPUR	Leaf miner	Remove and burn all infested leaves. Treat with sprays containing either nicotine subhate 40% at a rate of 1% teaspoonfuls per gallon of water or pyrethrum. Clean up around the base of the plants in the fall.
MARIGOLD	Greenhouse Leaf Tier	See Chrysanthemum.
	Blister Beetle	Dust with 70% cryolite.
	Red Spiders	Dusting sulphur gives good control of these pests. Ara- mite, parathion and malathion are also effective.

PLANT	PEST	CONTROL
MORNING GLORY	Golden Tortoise Beetle	Spray or dust with DDT as for tarnished plant bug on Aster.
NARCISSUS	Bulb Fly	Cull out infested bulbs at time of harvest. Furnigate in- fested bulbs with cyanide, using 16 ounces of granular calcium cyanide to 100 cubic feet of space. Calcium cya- nide is a deadly gas, therefore, follow the manufacturers directions. The hot water treatment may also be used. That is, emersing the bulbs in water of 110+11.5° F for $1\frac{1}{2}$ hours soon after they are lifted.
NASTURTIUM	Aphids Cabbage Worms	See Aster. Dust or spray using DDT as for the control of tarnished plant bug on Aster. Toxaphene or rotenone may also be used.
PANSY	Aphids	See Aster.
PEONY	Rose Chafer	Spray or dust with DDT or lead arsenate as for the borer on Iris. Toxaphene and pyrethrum treatments may also be used.
PETUNIA	Red Spider	See Marigold.
SALVIA	Whiteflies	Spray or dust with DDT as for rose budworm on Snap- dragon.
SNAPDRAGON	Black Stinkbug Rose Budworm Red Spider	See Tarnished plant bug on Aster. Remove infested buds, Dust with 5% DDT or lead arsenate or spray using 1% tablespoonfuls of 50% wettable powder or 3 tablespoonfuls of lead arsenate per gallon of water. See Marigold.
VERBENA	Garden Webworm	Spray or dust plants with DDT or lead arsenate as for rose budworm or snapdragon. Treat at first signs of injury.
VIOLETS	Aphids Mealy bugs	These insects may be controlled using micritic subplate 40% at a rate of $1%$ tensponnful plus 1 tablespontul of sonn flakes per gallon of water. Demeton* and mala- thion as for mealphuges may also be used effectively. Demeton* 25% emulsion at a rate of 1% tenspoonfuls per gallon of water and applied as a soil drench gives good control. It will be absorbed by the plants thus poisoning used to control these peaks.
ZINNIA	Four-lined plant bug	These pests are very active and difficult to control. 2-3% nicotine sulphate dusts or sprays containing 1½ teaspoon- fuls of 40% nicotine sulphate per gallon of water are helpful. Rotenone sprays or dusts may also check infes- tations. Several applications may be necessary.

Pests of Flowers - 1955-(continued)

* CAUTION: Demeton is extremely poisonous to humans; therefore take all precautions listed by the manufacturer. Remove treated plants from the home for 7 days after treatment.

