

CONTROLLING BEDDING PLANT DISEASES

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The control of bedding plant diseases is more critical this year than at any time in the past. With rising costs, the death of even a few plants may mean the difference between profit and loss.

Sanitation is the starting point in any disease control program. Clean greenhouses thoroughly before placing plants in them. This means removing all weeds, debris, flats, pots and containers. The greenhouse floor should be raked clean and leveled. Do this well in advance of placing a crop in the house to further reduce disease inoculum. In seedling houses, the benches should be cleaned with LF-10 (1:50) or clorox (1:9).

Soil mixes should be steamed, gassed or treated in some manner to eliminate disease problems. Artificial mixes, while somewhat expensive, are relatively free from disease-causing agents. Guard carefully against contamination.

After plants are placed in the greenhouse, environmental control will reduce the incidence of disease. Water in the morning or early afternoon to allow the plants and soil surface to dry before night-fall. Fans will help, especially HAF (see page 17 in this newsletter). Ventilate daily to reduce the humidity, especially in plastic greenhouses. This can be done late in the afternoon just before the sun goes down.

Plants should be kept off the ground so the soil mix will drain properly. This will also allow for air circulation around the plants.

If diseases should appear, a fungicide should be used immediately. Letting a disease become established may be costly and control is made more difficult.

While some growers are applying wettable powder fungicides as dusts weekly (4-8 oz/1000 sq. ft.) in a preventative program, this usage is not labelled and is done at the growers own risk.

See the following table for disease control suggestions.

DAMPING-OFF AND RELATED SOIL DISEASES

Caused by species of Pythium, Phytophthora, Rhizoctonia, Sclerotinia and Fusarium.

<u>Fungicide</u>	<u>Rate and Area Treated as a Drench</u> (1 pint/square foot) 100 gals. (800 square feet)**
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Benomyl 50W	1 lb.
Captan 50W*	2 lbs.
Dexon 30W	1 lb.
Ferbam 76W	2 lbs.
Terraclor 76W	1/2 lb.
Truban 30W	1/2 lb.

*Only one labeled for vegetable crops.

**8 oz/100 gals. = 1/12 oz/gal/8 sq. ft.

1 lb/100 gals. = 1/6 oz/gal/8 sq. ft.

2 lb/100 gals. = 1/3 oz/gal/8 sq. ft.

Combinations may be more effective, especially if the causal organism is not known. Try benomyl-dexon, benomyl-truban or dexon-terraclor.

BOTRYTIS

<u>Fungicide</u>	<u>Rate--Spray to run-off</u>
Benomyl 50W	1/2 lb/100 gals.
Daconil 2787 75W	1 1/2 lb/100 gals.
Termil or Exotherm	Follow manufacturer's directions.

FUNGAL LEAF SPOTS

<u>Fungicide</u>	<u>Rate--Spray to run-off</u>
Captan 50W	2 lbs/100 gals.
Daconil 2787 75W	1 1/2 lbs/100 gals.
Dithane M-45* 80W	1 1/2 lbs/100 gals.
Maneb 80W	1 1/2 lbs/100 gals.
Thiram 65W	1 1/2 lbs/100 gals.
Zineb 75W	1 1/2 lbs/100 gals.

*Has injured marigolds in some instances.