

BOTRYTIS ON TULIPS

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Botrytis blight (Botrytis tulipae) or "fire," as it is commonly called, is a problem that occurs on tulips almost every year. This fungus can attack the bulbs, leaves, stems and flowers.

Bulbs: Deep-yellow or brown circular lesions may be visible after the outer scales are removed. The lesions are usually on the sides of the bulbs but may occur at the nose or at the base. Occasionally small black bodies, about the size of a pinhead, can be seen on the outer scales. These are called sclerotia and are the resting structures of the fungus.

Leaves: The fungus infection first appears as minute, yellowish spots, usually elongated in the direction of the veins. The spots are surrounded by a darker, water-soaked area. The spots are slightly sunken and give the leaf a speckled appearance. The spots enlarge and turn to a whitish-gray color. An infection at the leaf margin may cause the leaf to wrinkle and bend to one side.

Lesions on the stalks are similar to those on the leaves but may be longer and more depressed. In fact, the lesions may extend through the stem causing it to break.

Flowers: Lesions on the flowers begin as minute spots that are whitish to light brown. The spots enlarge, turning a deeper brown, and may affect the entire flower.

Control: If Botrytis is anticipated during bulb storage, a spray of Benomyl 50W (8 oz./100 gal.) should be applied when the tulips are 2" tall and repeated at 2-week intervals.

If Botrytis is observed in the greenhouse, spray with Benomyl or treat with Termil according to the manufacturer's directions immediately, since the disease spreads very rapidly.

CORRECTION

In the article "What Size Greenhouse Heater?" (Connecticut Greenhouse Newsletter No. 49, November 1972) there is an error in the calculation for heat loss on page 11. Following is the corrected section.

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EXAMPLE: Calculate the heater size for a 25' wide (40' over) by 100' long double film pipe arch greenhouse with a crop of greenhouse tomatoes requiring a minimum night-time temperature of 60°F.

SURFACE AREA = 40' x 100' + 500 sq. ft. (end wall area) = 4500 sq. ft.

HEAT LOSS = .80 x 4500 x 60 = 216,000 Btu/Hr.
Add 10% for winter ventilation 21,600 Btu/Hr.
Add 10% for windy location 21,600 Btu/Hr.
Total **HEAT LOSS** = 259,200 Btu/Hr.