

Botrytis Bud Rot of Carnations

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Within the past two months a number of specimens of bud rot of carnations have been called to our attention. Most of these have been caused by a fungus known as Botrytis cinerea. This type of bud rot is recognized by the fact that it starts on some of the outer petals and works inward to the center of the bud. The outer petals become brown and dry and on the surface a powdery greyish mass of spores of the fungus is often evident. The inner petals also become brown but may remain moist for a long time. Botrytis bud rot is differentiated from the common Fusarium bud rot by the fact that the Fusarium disease starts within the bud and later grows to the outer petals, the Fusarium spores being carried into the buds by grass mites.

Spores of the Botrytis fungus, in contrast to those of Fusarium, are readily carried by air currents. Furthermore, since the fungus commonly develops and sporulates on most any decaying vegetable matter, the spores are apt to be present in the air in most any greenhouse a good deal of the time. One may wonder, then, why Botrytis bud rot is not even more common and destructive. Fortunately, the fungus is not an aggressive parasite and appears to require the presence of moisture on the petals for some time before germination and infection can occur. Nearly all cases of this disease can be found to be correlated with drips from the roof, careless splashing during watering operations, or poor ventilating practices which favor condensation and retention of water on the petals.

A spray program is neither necessary nor desirable for controlling Botrytis bud rot, since it can usually be eliminated by removing the factors which favor it. Sanitation is obviously important as a means of reducing the spore population in the atmosphere. Buds showing signs of the disease should be removed from the greenhouse as soon as detected. Dead leaves and other plant parts should never be allowed to accumulate on the benches, in the aisles, or elsewhere in the greenhouse. Leaks in the roof should not be left unrepaired and drip grooves in the sash bars should be kept cleaned out so that they will function properly. Splashing of water should never be permitted.

A very important control measure lies in the proper regulation of heat and ventilation. Usually it is advisable to maintain a slight crack of air most of the time, using additional heat in the pipes to keep the temperature up. Closing the houses tightly and allowing rather sharp temperature drops are sure to raise the relative humidity, cause condensation, and provide an open invitation to Botrytis bud rot.

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Your editor,

Kenneth Post