

Common Diseases of Florist Crops

Botrytis Blight

The common gray mold fungus, *Botrytis cinerea*, attacks a wide variety of ornamental plants, probably causing more losses than any other single pathogen. The fungus causes a brown rotting and blighting of affected tissues. It commonly attacks the stems of geranium stock plants and wounds on cuttings. As a result of *Botrytis* infection, very small seedlings can be rotted; stems of poinsettia, snapdragon, zinnia, exacum, or lisianthus can be girdled; and petal tissues of many plants, including carnations, chrysanthemums, roses, azaleas, and geraniums, can be spotted and ruined. The fungus is usually identified by the development of fuzzy grayish spore masses over the surface of the rotted tissues, although such sporulation will not develop under dry conditions.

Spores of *Botrytis* are produced on distinctive dark-colored, hairlike sporophores and are readily dislodged and carried by air currents to new plant surfaces. The spores will not germinate and produce new infections, however, except when in contact with water, whether from splashing, condensation, or exudation. Only tender tissues (seedlings, petals), weakened tissues (stubs left in taking cuttings, tissues infected by powdery mildew), injured tissues (bases of cuttings), or old and dead tissues are attacked on most crops. Active, healthy tissues, other than petals, are seldom invaded. Petals shed from crops in hanging baskets may encourage *Botrytis* leaf infections on the crops listed below.

Bioenvironmental Control

Because high humidity is required for spore production and actual condensation is necessary for spore germination and infection, *Botrytis* can usually be controlled under glass by avoiding splashing and by heating and ventilating to prevent any condensation on the plant surfaces. Because the fungus readily attacks old or dead tissues and produces tremendous quantities of airborne spores, the importance of strict sanitation cannot be overemphasized. All old blossoms and dead leaves should be removed, and all fallen leaves and plant debris on or under the benches should be gathered and burned.

Chemical Control

Fungicides may be required under some greenhouse conditions, especially with highly susceptible crops such as exacum, geranium, poinsettia, and fuchsia. Fungicide resistance is reported for *Botrytis*. The fungus is commonly resistant to thiophanate-methyl (3336, 6672 and Fungo) and is often partially resistant to dicarboximides (Chipco 26019, Vorlan). Use effective fungicides in rotation for optimum *Botrytis* management that will slow the development of resistance.