

Diseases of Specific Florist Crops

Keeping florist crops free of disease requires constant care and planning. Prevention is the basis of freedom from disease and should be an integral part of the general cultural program. The symptoms of the diseases of major florist crops are described individually by crop in a series of fact sheets.

Rose (*Rosa hybrida*)

- Powdery mildew: White fuzzy patches of mycelial growth and sporulation on leaves, stems, and flowers.
- Nematodes: Stunted growth or symptoms of nutrient deficiency or swollen, knobby areas on the root systems. Because roses for cut flowers are still grown in ground beds, they are one of the few crops in New York that may be troubled by nematode infestations.
- Cankers (*Coniothyrium fuckelii* and other fungi): Brown discolored sections of canes often die back from a pruning cut or may be centered on a wound, sometimes around the graft union. Cankers generally bear sporulation of the causal fungus. Prune out the cankers, sanitize shears between cuts, and avoid both water stress and overhead watering of freshly pruned plants to minimize the chance of new infections.
- Black spot: Large black leaf spots with a fringed margin, especially concentrated along veins. Extensive spotting leads to leaf yellowing and leaf drop. Shoots may also be infected. This problem is generally not severe in greenhouses where overhead watering of the foliage can be avoided by subirrigation techniques; outdoors it is a major problem.
- Verticillium wilt: Wilting of leaves at shoot tips and yellowing or interveinal scorching of lower leaves; dieback. Vascular discoloration is usually not obvious within the stem, but some sparse black flecking may be observed. Symptoms appear when the plant is under stress, such as that caused by drought.
- Downy mildew: Angular dark patches between the leaf veins, usually surrounded by yellow areas. Defoliation may be extensive. Spots frequently resemble spray injury. Under high relative humidity, sporulation will be produced on the underside of the leaf lesions. Incubation in a moist chamber may be necessary to encourage this growth.
- *Botrytis*: May cause petal spotting or infection of young shoots leading to significant cankering.