

Gladiolus

Diseases

Botrytis Soft Rot (*Botrytis gladiolorum*) :

The disease occurs in the cold storage when the temperature stays below 13^o-15^o C. The disease is characterized by the formation of white-molded, soft, spongy corms. At early stage, the infection may be confined to surface only, but later on, it travels to the core as well. At high temperature, corms seal off infection, escaping further rotting.

In the field, infection is characterized by circular brown leaf spots. The smallest spots are visible only on the upper surface of leaf.

Control : Leaf infection can be controlled by spraying the plants with 0.25% Dithane M-45, twice a week and by dusting healthy corms with Dithane M-45, during storage.

Fusarium Corm Rot (*Fusarium oxysporum* f. sp. *gladioli*) :

The fungus is carried in corms /cormels, and the soil. Latent infection in corms may develop into active rotting of corms/cormels during storage and also during plant growth. Extra losses occur when plant growth is checked by poor soil aeration, flooding or hot weather. Addition of excess nitrogen in the form of cow dung manure results in additional casualties.

The disease is characterized by rot of corms, stunted plant growth, late blooming or blind plants, greener and smaller buds and poor opening. The most serious loss is the reduction in number and quality of flower spikes due to the infection.

Control : Fusarium corm rot is difficult to prevent but can be controlled to some extent by growing disease tolerant cultivars and by various control measures. Hot water treatment of corm /cormels at a temperature of 50^oC for 30 minutes before planting, use of clean soil or fumigated soil, and treatment of corms /cormels with fungicide prevent/ control the disease. The most effective treatment is soaking the corms in Benlate/ Bavistin 0.02% solution for half an hour before planting and soil application of Furadan/ Thimet 10G @ 3g/square metre at the time of planting is very helpful in preventing the incidence of this dreaded disease.

Penicillium Rot (*Penicillium gladioli*) :

This is commonly known as green mold. The disease occurs when the corms are stored in heaps after having been dug in the cold weather. Large reddish brown lesions on the sides of the corm characterize the disease. Sometimes lesions may be covered with bluish green masses of fungal spores. Hot humid conditions favour the disease.

Control : The corms during storage should be examined periodically and diseased corms should be sorted out and discarded. Storing of the healthy corms may prevent the occurrence of the disease. Dusting of corms with Dithane M-45 is helpful in preventing this disease during storage.

Tip Burn :

This disease manifests itself in the form of necrosis of the leaf tips and is due to the damage done to the roots by excessive watering or by fluorides present in the soil at low pH or in air.