

# Gladiolus

## Pests

### **Thrips (*Taeniothrips simplex*)**

This is one of the most serious pests of gladiolus. Yellow coloured nymphs and black adults damage leaves and spikes. Affected leaves and spikes develop silver streaks, turn brown, get deformed and dry if damage is severe. Attack on young plants reduces flower production. The pest also attacks corms under storage. Infected corms become sticky, shrivel and produce weak plants when planted.

**Control:** Spraying of Methyl Demeton 25EC or Dimethoate 30EC @2ml/litre of water at 10 days interval provides significant control of thrips. Storing of infested corms at 2°C for 6 weeks and later treating them with hot water at 46°C completely kills the thrips on gladiolus corms.

### **Cut Worms (*Agrotis segetum*)**

The pest attacks mainly the newly planted gladiolus plants. Female moth lays eggs near ground on plant parts. Hatched larvae feed during nights on emerging shoots. Grown up larvae, which are clay coloured, cut the plants at ground level. Plants are vulnerable to attack upto 3rd leaf stage. They also damage underground corms and developing spikes.

**Control:** Ploughing during summer exposes the pupae to predators. Poison bait consisting of Carbaryl or Malathion @ 0.1%, wheat bran and molasses scattered in the field effectively controls the larvae. Sprays of Methyl Parathion @0.05% or Quinalphos @0.05% provides protection to foliage from cutworms

### **Leaf Eating Caterpillar (*Spodoptera litura*)**

This caterpillar mainly damages foliage of gladiolus plants. Female moth lays ash coloured eggs in groups on lower side of leaves. The young larvae feed on lower surface of leaves by scraping while greenish-brown mature larvae feed voraciously during nights on these leaves.

**Control:** Collection and destruction of egg masses and leaves infested with young larvae reduce pest build up. Setting up of light traps attracts adult moths and helps in monitoring pest population. Deep ploughing in summer exposes pupae to predators. Spraying of Quinalphos @0.05% or Carbaryl @0.1% or Chlorpyrifos @0.05% gives protection to foliage from the leaf-eating caterpillar.

### **Mites (*Tetranychus equatorius*)**

Attack by the mite begins at an early stage when plants are young. Green coloured nymphs with lateral specks and reddish-brown coloured adults colonize on leaves and suck the sap causing discolouration and wilting. The affected leaves fall off.

**Control:** Methyl Parathion 0.05, Fluvalinate 0.012% and Diazinon at 0.4% offer significant control of mites.

### **Mealy Bug (*Ferrisia virgata*)**

Damage by mealy bug begins in the field on underground corms during dry conditions and carries on to the storage. Nymphs and adults damage corms by sucking the sap causing shriveling and drying of affected corms.

**Control:** Prompt collection and destruction of infested parts reduces spread of the pest. Crawling of ants on plants is the sign of beginning of mealybug infestation. Spraying should be taken up at this stage. Sprays of Methyl Parathion 0.04% or Dimethoate 0.04% or Acephate 0.1 % at 15 days interval effectively contains mealybug infestation

### **Root-knot Nematode (*Meloidogyne* sp).**

The symptoms of the attack are in the form of stunted growth, yellowing of leaves, heavy galling on roots.

**Control:** Use nematode-free planting material is the best method to avoid the nematode infestation. Hot water treatment of corms at 57.8°C for 30 minutes helps to control the nematode population. Inter-cropping or crop rotation with marigold reduces the severity of attack in the field. Application of Carbofuran/Phorate @ 1g a.i./m<sup>2</sup> is found effective.

### **Rodents:**

Rodents cause a considerable damage to gladiolus corms in the fields as well as during storage, by eating them away. The damage during storage can be prevented by dusting the corms with 5% Cythion and storing them in perforated trays. Poison bait is quite helpful in checking rodent menace in the field as well as during storage.