

# Marigold

## Diseases

### **Wilt and Stem Rot (*Phytophthora cryptogea*) :**

The fungus affects the collar portions of the plants. In nursery the infection results in damping-off and is aggravated by soil moisture. In the field the infected plants show wilting. French marigold and dwarf varieties are less susceptible whereas the African types are highly susceptible to the disease.

**Control:** The disease may be controlled by soil treatment with Captan, Mancozeb, Metalaxyl and Fosetyl-Al.

### **Collar Rot (*Phytophthora sp.*; *Pythium sp.*) :**

The symptoms are in the form of black lesions developed on the main stem. Rotting at the collar regions causes death of the plant. Soil sterilization and controlled watering help in reducing the disease incidence.

### **Leaf Spot and Blight (*Alternaria*, *Cercospora* and *Septoria sp.*) :**

Brown necrotic spots develop on leaves, which get enlarged at the later stage of infection. The entire foliage gets damaged and results in poor vegetative growth. Spraying of fungicides is helpful in controlling the disease.

### **Powdery Mildew (*Oidium sp.*; *Leveillula taurica*) :**

The symptoms are in the form of whitish powdery growth on the aerial parts of the plant.

**Control:** Spraying Sulfex (3g/litre of water) can effectively control the disease.

### **Flower Bud Rot (*Alternaria dianthi*) :**

The fungus infects the young flower buds. The infected buds shrivel and become dark brown in colour. The pathogen also infects leaves causing blight. The infection is visible in the form of brown necrotic spots on margins and tips of older leaves.

**Control:** Spraying of Mancozeb (2g/litre of water) effectively controls the flower bud and leaf infections.

### **Damping Off (*Pythium sp.*) :**

The disease is most prevalent at the seedling stage. Necrotic spots and rings develop on the young seedlings causing collapse of the seedlings. Considerable loss is sustained if seedlings are not properly looked after.

**Control:** Soil sterilization by Formalin @ 2% before sowing and spraying of Dithane Z-78 @ 2g/ litre of water are effective in controlling the disease.