

# Cauliflower

## Diseases

### **Stalk Rot** (*Sclerotinia sclerotiorum*):

This fungus can cause serious losses in the field, in storage, and under transit and market conditions. Generally, damp weather favours the occurrence of the disease.

Infections may occur on the stem at the ground level, on the leaves at their bases, or where the foliage comes in contact with the soil. The infections begin as water-soaked, circular areas, which soon become covered by white, cottony fungal growth. The affected tissue becomes soft and watery as the disease progresses. The fungus eventually colonizes the entire cabbage head and produces large, black, seedlike structures called sclerotia on the diseased tissue.

**Control:** The disease can be managed most successfully by combining cultural practices that discourage disease development. Planting cabbage in fields that are surrounded by dense woods will restrict air circulation and subsequently delay drying. Rows should be planted in the direction of the prevailing winds to promote free flow of air movement within the plants.

Fields with a history of white mold should be planted with non-susceptible crops such as grains (corn, rye, wheat, etc.). Cabbage and other susceptible crops (cauliflower, beans, peas, etc.) should not be planted in fields where white mold has become a problem because continuous cropping of susceptible crops will result in a buildup of the fungus in the soil and increased disease incidence.

Mechanical injuries to cabbage heads during harvesting operations should be avoided.

### **Black Rot** (*Xanthomonas campestris* pv. *campestris*):

This bacterial disease is common in areas having a warm and wet climate.

Plants can be infected during any growth stage and the symptoms resemble nutritional deficiencies. Infected seedlings become yellow, drop lower leaves, and may die.

Leaves may be affected on only one side of a seedling. Plants infected because of contaminated seed may not develop symptoms for many weeks. The classic symptom of black rot is caused by local infection that results when bacteria enter leaves through natural openings of leaf margins. The infected tissue turns pale green-yellow and then turns brown and dies. Affected areas are usually wedge- or V-shaped. These areas enlarge as the disease progresses, and severely affected leaves may drop off. The veins in infected leaves, stems, and roots sometimes become black. The heads of the infected plants remains small and its quality is reduced making it unfit for marketing.

**Control:** An integrated approach is needed to manage black rot successfully. Use of black rot tolerant varieties is the best method to control the disease. Considerable reduction in disease has been observed when seeds are treated with Agrimycin-100 (100ppm) or Streptocycline (100 ppm). Planting should be done on raised beds to facilitate drainage. Cultivation in the fields where crucifers have been continuously grown during last 2 years should be avoided. Plants should be thoroughly inspected for black rot symptoms and the affected plants should be removed and destroyed.