

# Cauliflower

## Disorders

### **Browning :**

Browning is caused due to boron deficiency. Generally, the deficiency symptoms of boron are externally visible on plants after the curd formation. In early stage, the water soaked areas appear on the stem and curd surface. As the plant grows, the stem becomes hollow with water soaked tissue covering the internal walls of the cavity. In advanced stage of deficiency, brown or pink coloured areas are seen on curd surface and therefore, it is also called brown rot or red rot or browning of the curd. Sometimes the stem may become hollow even without brown areas on the curd. The affected curds are bitter in taste.

The foliage colour first changes to dull green and then greenish yellow at the apical margin of the older leaves. When there is severe deficiency of boron, then leaves are under developed and smaller. The growing point may die in young stage of plant itself.

**Control:** The deficiency of boron may be corrected by applying borax. The quantity of borax depends on soil type, soil pH and the extent of deficiency. In acid soil, 10- 15 kg borax/ha is sufficient while larger quantity may be required as natural and alkaline soils.

### **Whiptail :**

Whiptail disorder is caused due to deficiency of molybdenum. In young plants the deficiency symptoms are chlorosis of leaf margins and the whole leaves may turn white. The leaf blades do not develop properly. When the deficiency is severe, only the midribs develop. This condition is commonly known as 'Whiptail'. The growing point of the plant is also deformed which prevents the curd development. The deficiency of molybdenum generally occurs in acid soils when the soil pH is below 5.5.

**Control:** Lime application in acidic soils is done to increase the availability of molybdenum. The quantity of lime is determined by initially measuring the pH of the soil. Alternately, soil application of Sodium Molybdate (10-15 kg/ha) effectively controls the deficiency symptoms.

### **Buttoning :**

The development of small premature curds or buttons while the plants are young is known as buttoning. The button heads are exposed and the plants showing this condition have usually small poorly developed leaves. Several factors like poor nitrogen supply, planting of over-age seedlings, unfavorable climatic conditions and improper time of planting are reported to cause buttoning.

**Control:** Adequate supply of nitrogen and moisture for rapid vegetative growth of plant is considered important for preventing the occurrence of button plants.