Chrysanthemum Diseases

**Wilt** (*Fusarium oxysporum f.sp. chrysanthemi*):
Initial symptoms are in the form of yellowing and browning of leaves. Affected leaves die from the base of the plant upward. Infected plants are stunted and often fail to produce flower. Wilting may cause rotting of root or the base of the stem.

**Control**: Since the disease is a soil borne it is difficult to control with chemicals alone. Drenching the soil with Dexon or Carbendazim is very effective. Before planting dipping the rooted cuttings in a solution of Thiram @1.5g/litre of water. Since the disease spreads mostly through cuttings, it is important to use disease free planting material. Disease can further be minimised by following strict sanitation; periodical monitoring; crop rotation and roughing of infected plants.

**Rust** (*Puccinia crysanthemi*):
Rust is a serious disease especially in the early spring. The disease symptoms are in the form of brown blister-like swellings, which appear on the undersides of leaves. These burst open releasing masses of brown, powdery spores. Severely infected plants become very weak and fail to bloom properly.

**Control**: Early removal of infected leaves/plants helps to prevent the further spread of the disease. Spraying the plants with Karathane @0.025% or dusting with Wettable Sulphur @0.2% is effective in controlling the disease.

**Septoria Leaf Spot** (*Sepotria chrysanthemella*):
Leaf spots occur during cool-wet periods of the rainy season. Since the pathogens are spread through rain splashes the lowermost leaves get infected first. Serious infection may result in premature withering of the leaves; the dead leaves hang to the stem for some time. When flowering starts the infection occurs on flower buds, which rot completely.

**Control**: These disease can be controlled by spraying Bavistin @0.05% six times at 15 days intervals from the end of July or spraying Benomyl (0.1%) followed by Captafol (0.2%) and Carbendazim (0.1%). Destruction of disease debris and avoiding excessive irrigation is recommended.

**Stem Rot** (*Fusarium solani*):
The disease is noticed in cuttings, stock plants and flowering plants. It is serious during rainy weather. The affected plants show different symptoms such as leaf chlorosis, necrosis, decay and discoloration of internal portion of the stem. When the flower buds are about to open, small dark streaks are seen at the base of the stem. Root decay is noticed only in advanced stages of infection. In many cases the infection is devoid of any external symptoms and roots also look healthy. In some cases stem and root rot are confined to one side of the stem, the other side remaining healthy.
**Control** : Cuttings should be taken from healthy plants. Following strict field sanitation, roughing of infected plants and crop rotation helps to minimize the disease incidence. Spraying with Bavistin (0.1%) or Bordeaux mixture (1%) and avoiding excessive moisture in beds help in checking the disease.

**Powdery Mildew (Oidium chrysanthemi)** :
Infection is more severe in older plants under humid conditions. The growth of the fungus on the leaves appears as powdery coating. Infected leaves turn yellow and dry out. Infected plants remains stunted and fail to flower.

**Control** : Disease can be effectively controlled with Sulphur fungicides or Captan (0.2%). Good ventilation and proper spacing for free circulation of air is recommended.