



# **Grow the Crop**

## **Handout 8**

### **List of Fungal Diseases**

## List of plant diseases caused by Fungi

**Alternaria** – a disease in annual crops causing leaf-spots and blights may also cause damping off, collar-, fruit- and tuber rot. Common on older plant tissues under nutrient stress. Numerous dark leaf-spots usually occur on affected plants. Survive on debris and seed.

**Cercospora** – small, separate leaf-spots, circular to triangular. Found on broadleaf and grass species. Under humid conditions grey mould lesions are visible. Spores are airborne with the disease in most severe under warmer conditions.

**Septoria** – small leaf-spots that may join to form blights. Leaves become chlorotic. The infection starts on the lower, older parts and gradually progresses upwards.

**Helminthosporium**– major disease in grass crops, causing leaf-spots and blight as well as crown and root rot.

**Stem and twig canker** – starts where the branch or twig is injured, or at the joint of a dead branch or twig. Cankers can kill branches and twigs; the infection is counter acted by the callus formation.

**Anthracnose** – dark spots or sunken lesions on the leaves, stems, shoots and fruit. Survive on plant debris.

**Ergot** – common on grass species, produce honey dew in infected florets, which is replaced by hard purple black fungal masses called sclerotia. These are toxic to animals and humans.

**Botrytis** – common in glasshouse grown crops, causing blossom blight and fruit rot. Grey to brown mould surviving on debris.

**Vascular wilt** – fungi grow in the vascular systems of the plant, blocking the water transportation, leads to wilting of plant tissues. Fusarium and Verticillium are soil borne fungi, which are difficult to control.

**Post-harvest decay of fruit and vegetable products** occurs after harvest. Wounding of produce and high temperatures and humidity increases decay.

**Post-harvest decay of stored grain** – is often initiated in the field and causes decay and discoloration of grains decreasing marketability. Some species produce mycotoxins.

**Rust** – attack many hosts but causes the highest losses in staple crops damaging mainly leaves and stems. Rust to yellow coloured pustules form with gall formation. Rusts are parasitic and generally not systemic.

**Smut** – mostly affect the ovaries of grain crops, but also attack leaves and stems. May become systemic that can cause stunting. Survive on debris and seed.

**Rhizoctonia** – root and stem disease, which is soil borne and difficult to control. Survives in soil or in plant material. Symptoms include damping-off, wire-stem, cankers, root lesions, rot and potato black scurf.

**Sclerotium** – common in wet areas, causes damping-off, stem canker, crown blight and rot, fruit rot and wilt.