

## **Symptoms of Plant Diseases**

**Pathogen:** Pathogen is a living entity or any microorganism which is capable of causing disease such as virus, bacterium, fungus, MLOs and nematode etc.

**Disease:** Any malfunctioning of host cells and tissues that results from continuous irritation by a pathogenic agent or environmental factor and leads to development of symptoms.

**Symptom:** The external or internal reactions or alteration of a plant as a result of a disease is called symptom. These symptoms are collectively called as syndrome.

**Albication:** Albication is the complete repression of color caused by viruses, bacteria, fungi, and iron deficiency leading to albinism or whitening of leaf tissue.

**Blight:** A disease characterized by general and rapid killing of leaves flowers and stems.

**Blotch:** A disease characterized by large and irregular in shape, spots or blots on leaves, shoots and stems.

**Canker:** A necrotic often sunken lesion on a stem, branch or twig of a plant.

**Chlorosis:** Yellowing of normally green tissue due to chlorophyll destruction or failure of chlorophyll formation.

**Damping-off:** Destruction of seeds in the soil, or seedlings near the soil line, resulting in reduced stand, or the seedling falling over on the ground.

**Decline:** Progressive, gradual weakening and death of a plant or population of plants.

**Dieback:** Progressive death of shoots, branches and roots generally starting at the tip.

**Fleck:** a minute spot.

**Galls:** Abnormal, localized swellings or tumors on stem or root tissue.

**Gum:** Complex of polysaccharide substances formed by cells in reaction to wounding or infection.

**Gummosis:** Production of gum by or in a plant tissue.

**Leaf spot:** A self-limiting lesion on a leaf.

**Lesion:** A localized area of discolored, diseased tissue.

**Mildew:** A plant disease in which the pathogen is seen as a growth on the surface of the host; e.g., downy mildew, powdery mildew, caused by different fungi, but both having the name Mildew.

**Mosaic:** Symptom of certain viral diseases of plants characterized by intermingling patches of normal green and light green or yellowish colors.

**Mottle:** An irregular pattern of indistinct light and dark green areas.

**Mummy:** A dried shriveled fruit.

**Necrosis:** Necrosis is localized or the general death/degeneration of plant tissue (protoplast). It includes leaf spots, blight, rots etc.

**Necrotic:** Dead or discolored and brown to black.

**Ooze:** A mass of bacterial cells usually embedded in a slimy matrix appearing on the diseased plant surface, often as a droplet; or, a flux, a viscid mass of juices composed of host and parasite substances occasionally found exuding from a diseased plant.

**Ring spot:** A circular area of chlorosis with a green center; a symptom of many virus diseases.

**Rot:** The softening, discoloration, and disintegration of succulent plant tissue as a result of fungal or bacterial infection.

**Rosette:** Short, bunchy habit of plant growth.

**Root knots:** Root knots are the formation of galls on the roots which is caused as a result of nematode infection.

**Russet:** Browning roughened areas on skin of fruit as a result of cork formation.

**Rust:** A disease giving a rusty appearance to a plant and caused by one of the Uredinales (rust fungi).

**Scab:** A roughened crust-like diseased area on the surface of a plant organ; a disease in which such areas form.

**Scorch:** Burning of leaf margins as a result of infection or unfavorable environmental conditions.

**Shot-hole:** A symptom in which small diseased fragments of leaves fall off and leave small holes in their place.

**Smut:** A disease caused by the smut fungi (Ustilaginales), it is characterized by masses of dark, powdery and sometimes odorous spores.

**Spots:** Circular or irregular lesions on above ground tissue.

**Soft rot:** A rot of a fleshy fruit, vegetables or ornamental in which the tissue becomes macerated by the enzymes of the pathogens.

**Streak:** Narrow, elongated, somewhat superficial necrotic lesions, with irregular margins, on stems or leaf veins such as virus streak.

**Stripe:** Narrow, elongated, parallel, necrotic lesions especially in leaf diseases of cereals and grasses.

**Vein banding:** Retention of bands of green tissue along the veins while the tissue between veins has become chlorotic.

**Vein clearing:** Destruction of chlorophyll adjacent or in the vein tissue as a result of infection by a virus or other pathogen.

**Wilt:** Loss of rigidity and drooping of plant parts generally caused by insufficient water in the plant.

**Witches' broom:** Broom-like growth or massed proliferation caused by the dense clustering of branches in woody plants.

**Yellows:** A plant disease characterized by yellowing and stunting of the host plant.