

Fungal Infections of Cacti

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Cactus Anthracnose (fungus – *Colletotrichum (Gleosporium) spp*): This disease affects several kinds of cacti, cereus, echinocactus, mammillaria, and particularly, opuntia (prickly pear). Infection results in a rather moist light brown rot that shows many light pink pustules on the surface. Spots are small at first, later enlarge, and become covered by the small spore-producing pustules. Large areas may be affected, sometimes destroying entire plants. No satisfactory control is available, other than removing and destroying diseased cladodes as soon as noticed. In the greenhouse, soil from infected plants should be removed and benches disinfected. Spraying with a copper fungicide may help in checking this disease.

Dry Rot (fungi – *Phyllosticta concave* and *Mycosphaerella spp.*): Small black circular spots develop first, which later increase in size until they reach a diameter of one or two inches. Further advance is checked by the development of callus tissue. Minute fruiting structures are seen in the infected tissue. The disease is in part physiological, influenced chiefly by soil moisture. Remove and destroy diseased specimens.

Scorch or Sunscald (fungus – *Henersonia opuntiae*): This disease is common and serious on prickly pear cactus (opuntia). Spots at first are distinctly zoned, later enlarging until entire cladodes turn a reddish-brown and finally die. The center of the disease area is grayish-brown and cracked. Other fungi may be present in the diseased area. No practical control has been developed.

Cotton Root Rot (fungus – *Phymatotrichum omnivorum*): Several members of the cactus family are susceptible to attack by the cotton root rot fungus. Infected plants die. When pulled from the soil the brown strands of the fungus can be found growing on the root surface. No control practice is available.

Soft Rot (bacterium – *Erwinia carotovora*): The bacterium enters tissue through natural openings and wounds. Under conditions of high humidity, the bacteria reproduce quickly, spreading to healthy parts of the plant. Diseased tissue is watery, soft, black and deteriorates rapidly. If the environmental conditions turn dry, the development of the disease may be checked. The best control is to avoid wounds, treat broken surfaces right away with a copper fungicide, and avoid having plants in places where humidity is high.

Nematodes (*Meloidogyne spp.*): Most of the cacti and succulents are susceptible to infection by root knot nematodes. Infected roots show small galls that are typical of the disease and serve to identify it when clean, washed roots are observed. Fumigate or sterilize soil before potting.

Other Diseases (fungi): Other fungi known to cause disease on cacti are *Fusarium oxysporum* (Fusarium rot), *Macrophomina phaseolina* (charcoal rot), *Septoria spp.*, *Helminthosporium cactivorum*, and *Aspergillus alliaceus* (stem and branch rot).

Scab (physiological): Particularly common on prickly pear cactus. Rusty colored, corky areas appear on the stems. Scab is thought to be a form of edema, resulting from over watering and poor ventilation. Increase light and decrease humidity for control.

Stem Rot of Cacti (fungus – *Drechslera cactivorum*): Basal or top rot of seedling cacti that turns cactus into a shrunken mummy covered with brown spores. First symptoms are yellow spots. It can completely rot a plant in four days. The fungicide Captan should give some control.

The following is a web link with the same information:
plantpathology.tamu.edu/Textlab/Flowers/cacti.html