

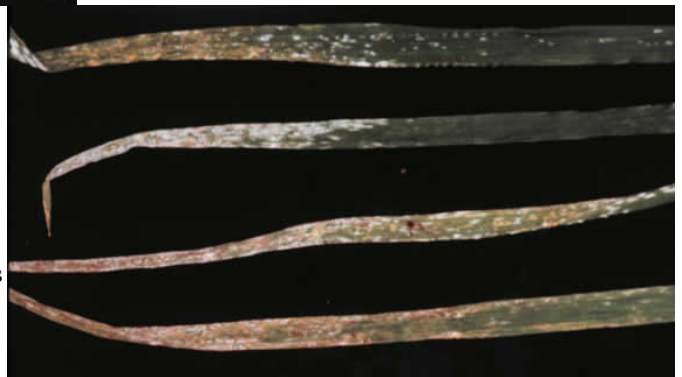
Powdery Mildew

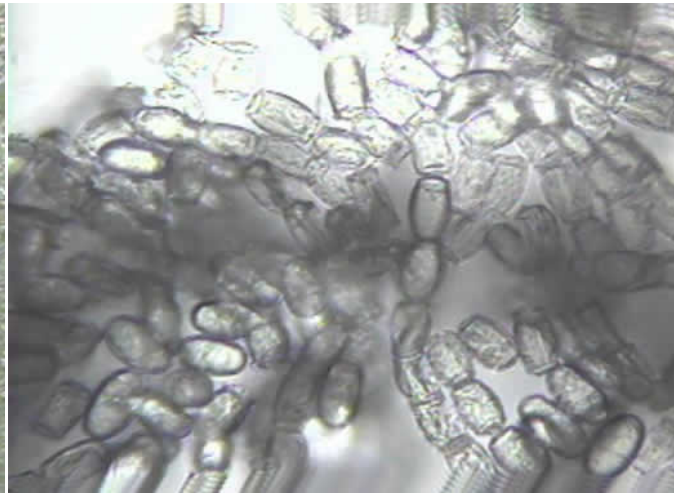
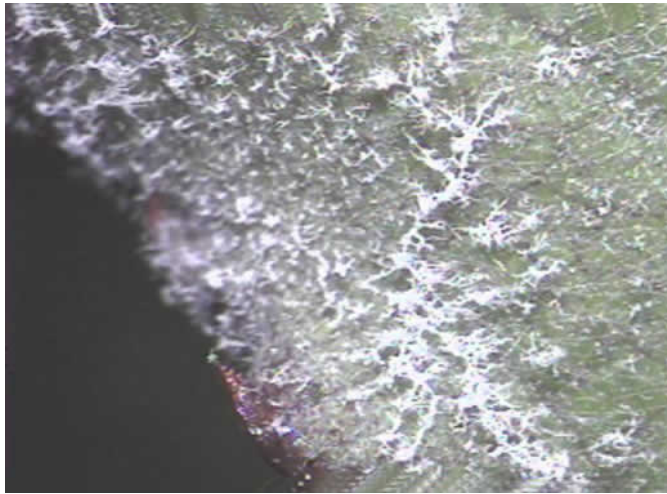
Important diseases: Powdery mildew of numerous plants.

Powdery mildew is a common disease name caused by several different fungi. Sexual states of the fungi are Ascomycetes meaning that their spores are produced within asci (sac-like structures). Important powdery mildew genera include *Erysiphe*, *Sphaerotheca*, *Phyllactinia*, *Microsphaera*, *Podosphaera*, and *Uncinula*. Genera are distinguished by the appendages attached to the cleistothecia (fruiting structure) and the number of asci produced. The most commonly seen stage of powdery mildew is the imperfect or conidial stage which is most commonly the genus *Oidium*.

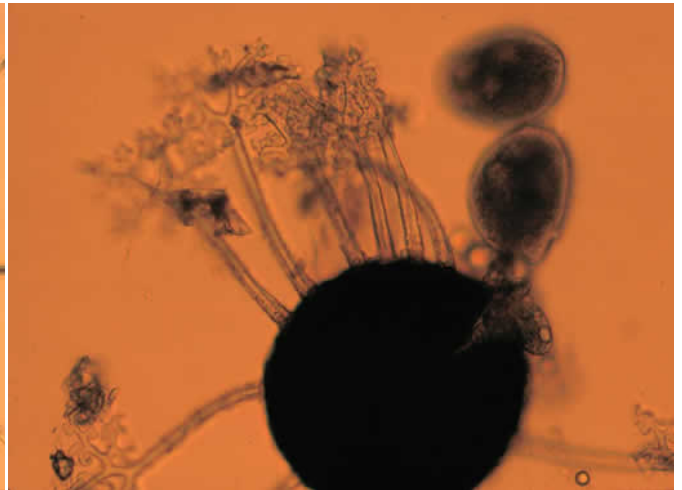
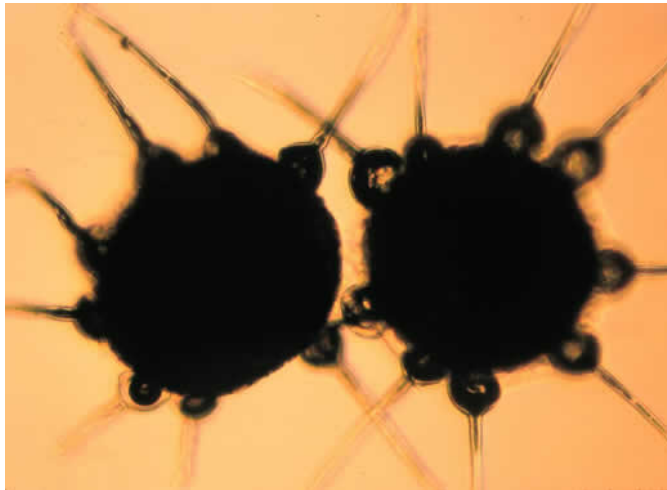


Regardless which fungus is causing powdery mildew disease on a particular host, the symptoms are almost always the same. White to gray powdery patches are seen on affected plant tissues. Powdery mildew infects leaves, flowers, stems and fruits of numerous vegetables, fruits, trees, flowers, cereals, and other field crops. Infected leaves may have yellowish or purple spots during hot weather when the fungus is not producing spores on the leaf surface. As infected tissues age they tend to dry and shrivel.





Conidia of powdery mildew are produced in chains on upright, simple conidiophores. Mycelium and conidiophores are produced on the plant surface and can be seen with a hand lens or magnifying glass. Conidia are cylindrical, single-celled, and clear.



Cleistothecia (fruiting structures) of the Ascomycete stage of powdery mildew may be present on some tissue. Cleistothecia are small, pinhead-sized, spherical structures that are initially white and later turn black with age. Spores are produced within asci (sac-like structures). Appendage shape and number of asci produced within each cleistothecia identifies powdery mildew fungi.