

POWDERY MILDEW OF ROSE

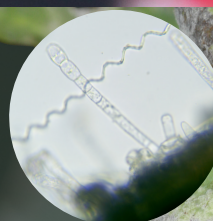
What is Rose Powdery Mildew?

Powdery mildew caused by *Podosphaera pannosa*, is one of the most serious fungal disease of roses grown in poly houses and field. This pathogen is an obligate parasite, which means it relies on its host for survival without causing its immediate death. However, it does extract nutrients from the host plant, leading to reduced photosynthesis result in yield reductions ranging from 20% to 40%, contingent upon the favorable environmental conditions.

Symptoms and Signs

The symptoms appear as a powdery, whitish growth, which includes the mycelium, conidiophores, and spores of the fungus on various parts of the plant, including leaves, shoots, buds, thorns, peduncles (flower stalks), and flowers. When plants are heavily infected early in the growing season, they can become severely stunted. Additionally, the mildew growth on stems, especially around thorns, and on flower stalks is often thicker and more like a mat compared to what's seen on the leaves. As the mildew ages, it may also turn brownish in color.

Microscopic view of
conidia borne on
conidiophore



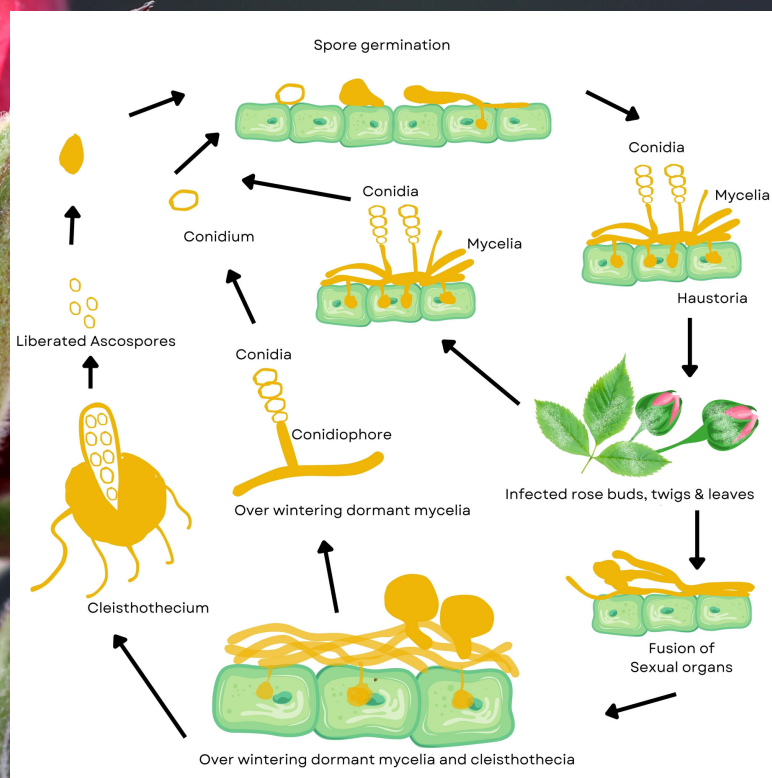
White powdery patches on leaves



White thick mycelial mat on flower stalk

How does it spread?

Rose powdery mildew spreads through microscopic, airborne spores (conidia and ascospores) produced on the powdery growth or from overwintering propagules. Unlike many other fungal diseases, it doesn't require extended periods of leaf wetness for spore germination. However, high humidity favours spore production and infection, making powdery mildew a common problem during dry spells. Overwintering rose mildew persists as fungal growth (mycelium or cleistothecium) on the stems or within some dormant buds. When these buds resume growth in spring, the shoots quickly become covered with mildew. The fungus then spreads from these infected shoots to the rest of the plant.



Disease cycle of Rose Powdery mildew

How do I protect my farm from Powdery mildew?

Space plants to allow good air movement in the canopy

Prune out and destroy infected parts at end of season to prevent overwintering of disease.

Regularly inspect your roses for any signs of powdery mildew to take immediate action to prevent the spread of the disease

If powdery mildew is a recurring problem, spray Carbendazim @ 0.5g/lit or Dinocap 48% EC @ 2ml/lit

Did you know?

Rose powdery mildew fungus mycelium grows superficially on surfaces of epidermal cells which can easily be washed off during rains.

Compiled By

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