2026 PDDC Plant Disease Talks

Orchid Diseases

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Orchid Diseases Black Rot

- Pathogens
 - Phytophthora cactorum
 - Pythium ultimum
- Favorable environment
 - Excessive moisture
 - Cool temperatures



Orchid Diseases Black Rot

- Control
 - Avoid symptomatic plants
 - Isolate new plants from established plants
 - Decontaminate pots, work surfaces, tools (70% alcohol, disinfectants, bleach)
 - Use a proper potting mix
 - DO NOT use garden soils

Orchid Diseases Black Rot

- Control
 - DO NOT overwater
 - Limit water splash
 - Promote good air circulation
 - Remove diseased plant material and debris

Orchid Diseases Black Rot

- Control
 - Use fungicides to prevent infections
 - · Poultices (?)
 - Copper sulfate + lime
 - Cinnamon
 - Spray treatments
 - Metalaxyl/mefenoxam, fosetyl-Al, etridiazole
 - Mancozeb, captan
 - · Alternate active ingredients (FRAC codes)
 - Apply according to label instructions

Orchid Diseases Leaf Spots/Blights

Pathogens

- Phyllosticta spp.
 - Colletotrichum spp.
 - Diplodia spp.
 - Uredo spp.
 - Uredo spp.

- Septoria spp. - Pseudomonas spp.

Favorable environment

- Excessive moisture
- High humidity



Orchid Diseases Leaf Spots/Blights

Control

- Avoid symptomatic plants
- Isolate new plants from established plants
- DO NOT get water on leaves
- DO NOT overwater
- Promote good air circulation
- Remove diseased plant material and debris (where possible)

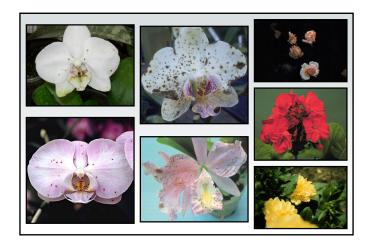
Orchid Diseases Leaf Spots/Blights

Control

- Use fungicides to prevent infections
 - Chlorothalonil, copper, mancozeb, thiophanate-methyl, fludioxonil, captan, ferbam
 - · Apply to protect new leaves
 - · 7-14 day application interval
 - Alternate active ingredients (FRAC codes)
 - · Apply during periods of high moisture

Orchid Diseases Botrytis Blight/Gray Mold

- · Pathogen: Botrytis cinerea
- Favorable environment
 - Excessive moisture
 - High humidity



Orchid Diseases Botrytis Blight/Gray Mold

- Control
 - Isolate new plants from established plants
 - DO NOT get water on flowers
 - DO NOT overwater
 - Promote good air circulation
 - Remove diseased plant material and debris

Orchid Diseases Botrytis Blight/Gray Mold

- Control
 - Use fungicides to prevent infections
 - Chlorothalonil, copper, fludioxonil, iprodione, mancozeb, maneb, thiophanate-methyl, triflumizole, vinclozolin
 - 7-14 day application interval
 - Alternate active ingredients (FRAC codes)
 - · Apply during periods of high moisture
 - · Apply when "perfect" flowers are desired

Orchid Diseases Viruses

Pathogens

- Odontoglossum ringspot virus (ORSV)
- Cymbidium mosaic virus (CymMV)
- Tobacco mosaic virus (TMV)
- Cucumber mosaic virus (CMV)
- Impatiens necrotic spot virus (INSV)
- Tomato spotted wilt virus (TSWV)
- Others

Orchid Diseases

Viruses

· Favorable environment: None

Transmission

- Touch: TMV

- Mechanical: ORSV, CymMV

- Aphid: CMV

- Thrips: INSV, TSWV



Orchid Diseases

Viruses

- Control
 - Avoid symptomatic plants
 - Isolate new plants from established plants
 - Request testing of plants prior to purchase
 - Enzyme-Linked Immunosorbent Assay (ELISA)
 - · Dip-stick tests
 - Polymerase Chain Reaction (PCR)
 - Discard infected plants

Orchid Diseases

Viruses

Control

- Dinfest contaminated materials
 - 1% sodium dodecyl sulfate (sodium lauryl sulfate)
 - + 1% Alconox® (2½ Tbsp + 2¾ Tbsp/gal)
 - Trisodium phosphate (14 dry oz/gal)
 - 20% low fat dry milk (Carnation®) + 0.1% polysorbate 20 (9% cups + ¾ tsp/gal)
 - · Alcohol dip followed by flaming

Orchid Diseases Where to Go for Help

Plant Disease Diagnostics Clinic Department of Plant Pathology University of Wisconsin-Madison 1630 Linden Drive Madison, WI 53706-1598 (608) 262-2863 pddc@wisc.edu https://pddc.wisc.edu

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