

2026 LGMSC

Top Five Plant Diseases of 2025

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Top Five Plant Diseases of 2025 Winter Injury

- **Causes**
 - Water stress
 - High winds
 - Extreme winter temperatures
 - Cycling winter temperatures
 - Insufficient snow cover
 - Ice

Top Five Plant Diseases of 2025 Winter Injury

- **Affected plants**
 - Yew
 - Spruce (Alberta)
 - Arborvitae
 - Boxwood

Top Five Plant Diseases of 2025 Winter Injury

- **Affected plants**
 - Fruit trees
 - Pome fruits (apple, pear)
 - Stone fruits (cherry, plum, peach, apricot)
 - Maples
 - Japanese
 - Korean
 - Redbud





Top Five Plant Diseases of 2025 Winter Injury

- **Management**
 - Water trees and shrubs adequately
 - Plant trees and shrubs
 - Properly
 - In protected locations (sensitive plants)
 - Protect sensitive plants
 - Pray for
 - Lots of snow
 - A slow, gradual cool down and warm up

Top Five Plant Diseases of 2025 Planting-Related Decline

- **Causes**
 - Impatience
 - Improper planting techniques
 - Overly deep planting
 - Failure to remove burlap, wire basket, wires
 - Lack of watering post installation
- **Hosts:** Any tree or shrub



Top Five Plant Diseases of 2025 Planting-Related Decline

- **Management**
 - Plant at the right time of year
 - Plant small trees
 - Plant bare-root trees
 - Prepare balled and burlaped trees properly
 - Remove burlap
 - Remove wire basket
 - Remove wires/cords
 - Expose the root flare

Top Five Plant Diseases of 2025 Planting-Related Decline

- **Management**
 - **Mulch properly**
 - Use high quality mulches
 - Use the right amount of mulch
 - **Water properly**
 - Apply two inches of water per week
 - Water from bud break through summer and into the fall
 - Continue watering for at least three years

Top Five Plant Diseases of 2025 Root/Crown Rots

- **Pathogens**
 - *Pythium* spp.
 - *Rhizoctonia solani*
 - *Cylindrocarpon* spp.
 - *Phytophthora* spp.
 - *Fusarium* spp.
 - *Thielaviopsis* spp.
- **Hosts: Any plant**
- **Favorable environment: Cool, wet soils**



Top Five Plant Diseases of 2025 Root/Crown Rots

- **Control**
 - **Moderate soil moisture**
 - Grow plants in well-drained sites
 - Use a soil/potting mix with adequate drainage
 - Improve drainage in poorly drained soils
 - Add organic matter to improve drainage
 - Use raised beds
 - **DO NOT overwater**
 - **DO NOT overmulch**

Top Five Plant Diseases of 2025 Root/Crown Rots

- **Control**
 - **DO NOT** move contaminated soil or plants
 - Decontaminate infested tools, pots, work areas (alcohol, disinfectants, bleach)
 - Pretest soils/mulches/composts
 - Use soil-less potting mixes for containerized plants

Top Five Plant Diseases of 2025 Root/Crown Rots

- **Control**
 - Use fungicides to prevent infections
 - Contract with a professional pesticide applicator
 - PCNB, thiophanate-methyl, fludioxonil, Etridiazole, metalaxyl/mefenoxam, fosetyl-Al
 - Alternate active ingredients
 - Use granular formulations if possible
 - Use during periods of wet weather

Top Five Plant Diseases of 2025 Root/Crown Rots

- **Control**
 - Use biopesticides to prevent infections
 - *Trichoderma*, *Gliocladium*
 - Use for potted plants

Top Five Plant Diseases of 2025 Taphrina Diseases of Stone Fruits

- **Pathogens**
 - *Taphrina deformans* (Peach leaf curl)
 - *Taphrina cerasi* (Cherry leaf curl)
 - *Taphrina communis* (Plum pockets)

Top Five Plant Diseases of 2025 Taphrina Diseases of Stone Fruits

- **Host**
 - Peach, nectarine (peach leaf curl)
 - Cherry (cherry leaf curl)
 - Plum (plum pockets)
- **Favorable environment:** Wet weather



Top Five Plant Diseases of 2025 Taphrina Diseases of Stone Fruits

- **Control**
 - Plant resistant varieties
 - Avoid susceptible varieties
 - Prune/thin trees to improve air flow
 - Decontaminate pruning tools (alcohol, disinfectants, bleach)

Top Five Plant Diseases of 2025 Taphrina Diseases of Stone Fruits

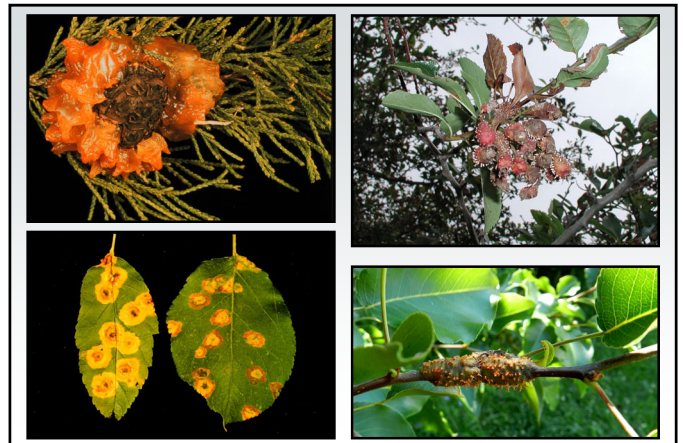
- Control
 - Thin fruit to reduce stress
 - Fertilize with nitrogen
 - Use fungicides to prevent infections
 - Chlorothalonil, copper, ferbam
 - Apply after leaf fall and/or before leaf emergence

Top Five Plant Diseases of 2025 Gymnosporangium Rusts

- Pathogens: *Gymnosporangium* spp.
 - *Gymnosporangium juniperi-virginianae* (Cedar-apple rust)
 - *Gymnosporangium globosum* (Cedar-hawthorn rust)
 - *Gymnosporangium clavipes* (Cedar-quince rust)
 - *Gymnosporangium yamadae* (Red star rust)

Top Five Plant Diseases of 2025 Gymnosporangium Rusts

- Hosts
 - Junipers
 - Rosaceous plants
 - Apple, crabapple
 - Hawthorn
 - Quince
 - Pear
 - Serviceberry
- Favorable environment: Wet weather



Top Five Plant Diseases of 2025 Gymnosporangium Rusts

- Control
 - Grow only junipers or rosaceous hosts
 - Use resistant cultivars/varieties
 - Remove galls
 - Decontaminate pruning tools (alcohol, disinfectants, bleach)
 - Destroy infected materials
 - Burn (where allowed)
 - Deep bury

Top Five Plant Diseases of 2025 **Gymnosporangium Rusts**

- **Control**
 - Use fungicides to prevent infections (?)
 - Treat rosaceous hosts
 - Chlorothalonil, copper, ferbam, mancozeb, propiconazole, sulfur, and triadimefon
 - Alternate active ingredients (FRAC Codes)
 - Apply when flowers first show color, when half of flowers open, at petal fall, 7 to 10 days after petal fall, and 10 to 14 days later

Top Five Plant Diseases of 2025 **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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