



Chrysanthemum Diseases

Informational table showing disease name, symptoms, pathogen/cause, and management of Chrysanthemum diseases.

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Disease	Symptoms	Pathogen/Cause	Management
Ascochyta Ray Blight	Flower development is retarded on one side of the bud. Petals exhibit a brown discoloration. Browning and blackening extends down the stem, causing the flower to droop. Brown to black irregularly shaped spots develop on leaves.	<i>Ascochyta</i> (<i>Mycosphaerella</i>)	Avoid overhead irrigation. Apply a fungicide to protect healthy plants.
Alternaria or Stemphylium	Pin-point dead spots develop on petals. These spots may	<i>Alternaria</i> or <i>Stemphylium</i>	Avoid overhead irrigation. Maintain greenhouse humidity

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Ray Speck	not enlarge. If enough spots are present, the entire flower dies.		below 98%. Apply a fungicide to protect healthy plants.
Bacterial Blight	Cuttings turn dark brown and collapse. Surviving cuttings may be infected but have no symptoms. Established plants wilt during the day when infected and recover at night.	<i>Erwinia chrysanthemi</i>	Purchase culture-indexed cuttings that are free of the pathogen. Disinfect propagation beds between crops. Destroy infected cuttings.
Bacterial Leaf Spot	Small dark brown to black spots on lower leaves enlarge and become irregular in shape. When infected leaves dry, the spots become brittle and crack. The disease often spreads up plants in one side of the pot, eventually to the flowers.	<i>Pseudomonas cichorii</i>	Do not plant infected cuttings. Avoid overhead irrigation. Water in a manner that keeps leaf surfaces dry at all times. Protect plants grown outdoors from splashing.
Botrytis Blight	Light brown spots form on lower petals. Browning spreads to other petals. Infected tissues become covered with dusty gray spores.	<i>Botrytis cinerea</i>	Maintain greenhouse humidity below 98% at all times. Apply a fungicide to protect healthy plants.
Chlorotic Mottle	Leaves, at first mottled, become completely yellow. Infected plants grown under low light conditions and when temperatures average less than 20° C (69° F) exhibit no symptoms.	<i>Chrysanthemum chlorotic mottle viroid</i>	Purchase virus-indexed plants that are free of the pathogen. Destroy infected plants and disinfect tools used to handle them. Do not handle healthy chrysanthemums after handling infected plants.

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Fusarium Wilt	Symptoms vary with the cultivar infected. Yellowing of leaves, wilting, and discoloration of the vascular tissue develops up one side of the plant.	<i>Fusarium oxysporum</i>	Management: Purchase culture-indexed cuttings free of the pathogen. Plant in pasteurized soil or soilless mix free of the pathogen. Maintain soil pH between 6.5 and 7.0. Use nitrate rather than ammonium forms of fertilizer. Apply a fungicide to protect healthy plants.
Powdery Mildew	Leaves have white, dry fungal growth on their surfaces.	<i>Golovinomyces cichoracearum</i> (formerly <i>Erysiphe</i>)	Apply a fungicide to protect healthy plants.
Pythium Root and Stem Rot	Stems turn dark brown to black at the soil line. Plants are stunted, wilt, and die.	<i>Pythium</i>	Plant in pasteurized soil or soilless mix free of the pathogen. Apply a fungicide to protect healthy plants.
Rhizoctonia Stem Rot	Young infected plants wilt during the day and recover at night. Reddish-brown dead areas develop at the soil line and girdle the plant.	<i>Rhizoctonia solani</i>	Plant in pasteurized soil or a soilless mix free of the pathogen. Apply a fungicide to protect healthy plants.
Rust, Brown	Dark brown masses of spores form in pustules on both leaf surfaces.	<i>Puccinia chrysanthemi</i>	Remove and destroy infected leaves. Apply a fungicide.
Rust, White	Small, yellow to tan spots are observed on the upper surface of leaves. On the underside of the leaf below the spots, raised, pinkish to white to cream-tan areas develop in which spores of the fungus are produced.	<i>Puccinia horiana</i>	Contact your state plant inspector and comply with regulations requiring the destruction of infected plants and fungicide treatment of remaining chrysanthemums.

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Stunt	Symptoms vary with the cultivar infected. Young leaves are light green and very upright. Plants are stunted to half their normal height at maturity. Infected plants flower prematurely and flower size is reduced. Some cultivars exhibit small dead spots or flecks on the leaves.	<i>Chrysanthemum stunt viroid</i>	Purchase virus-indexed plants that are free of the pathogen. Destroy infected plants and disinfect tools used to handle them. Do not handle healthy chrysanthemums after handling infected plants.
Verticillium Wilt	The margins of lower leaves wilt and die. Or, the entire leaf dies. Symptoms proceed up one side of the plant.	<i>Verticillium</i>	Plant in pasteurized soil or soilless mix free of the pathogen.



Botrytis or gray mold.





Foliar nematode symptoms.



Ascochyta leaf symptoms.



Ascochyta stem symptoms.

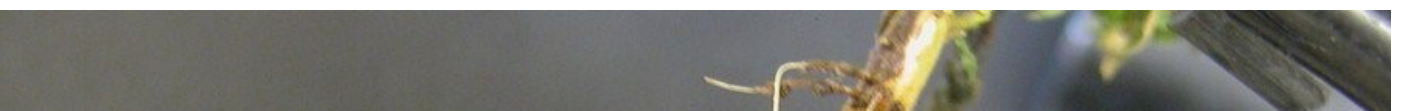




Bacterial blight (*Erwinia*)



Bacterial leaf spot (*Pseudomonas*).





Pythium root rot.

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