

Commercial Crop Production Ornamentals

Table 1. Diseases of ornamental plants.

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|---|---|---|
| Abelia | Leaf spot Powdery mildew Root rot | <i>Cercospora</i> <i>Oidium</i> <i>Pythium</i> , <i>Rhizoctonia</i> |
| African violet (<i>Saintpaulia</i>) | Gray mold Leaf spot Leaf and stem rot Necrotic spot Powdery mildew Root rot Root and crown rot | <i>Botrytis</i> <i>Alternaria</i> , <i>Corynespora</i> <i>Rhizoctonia</i> <i>Impatiens necrotic spot virus</i> <i>Oidium</i> <i>Fusarium</i> , <i>Rhizoctonia</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Agapanthus | Bacterial leaf blight Bulb and root rot Gray mold Leaf spot Root rot | <i>Xanthomonas</i> <i>Fusarium</i> , <i>Rhizoctonia</i> <i>Botrytis</i> <i>Colletotrichum</i> , <i>Myrothecium</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Ageratum | Leaf spot Powdery mildew Root rot Root and stem rot Rust Southern blight | <i>Cercospora</i> <i>Erysiphe</i> <i>Pythium</i> <i>Rhizoctonia</i> <i>Puccinia</i> <i>Sclerotium rolfsii</i> |
| Aglaonema | Anthraxnose Bacterial leaf spot Bacterial soft rot Leaf spot Root rot Root and stem rot Stem rot Southern blight | <i>Colletotrichum</i> , <i>Glomerella</i> <i>Pseudomonas</i> , <i>Xanthomonas</i> <i>Erwinia</i> <i>Cercospora</i> , <i>Corynespora</i> , <i>Myrothecium</i> <i>Pythium</i> , <i>Rhizoctonia</i> <i>Cylindrocladiella</i> , <i>Fusarium</i> , <i>Phytophthora</i> <i>Cylindrocladium</i> <i>Sclerotium rolfsii</i> |
| Ajuga | Leaf spot Root rot Root and crown rot Southern blight | <i>Alternaria</i> , <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Corynespora</i> , <i>Myrothecium</i> , <i>Stemphylium</i> <i>Pythium</i> , <i>Rhizoctonia</i> <i>Fusarium</i> <i>Sclerotium rolfsii</i> |
| Almond, flowering (<i>Prunus triloba</i>) | Blossom and twig blight Gray mold Rust | <i>Monilinia</i> <i>Botrytis</i> <i>Tranzschelia</i> |
| Adenium (Desert rose) | Leaf spot Root and stem rot | <i>Aristastoma</i> <i>Rosellinia</i> |
| Alyssum | Basal stem rot Damping-off | <i>Pythium</i> <i>Rhizoctonia</i> |
| American hornbeam (<i>Carpinus</i>) | Leaf blister Leaf spot Powdery mildew | <i>Taphrina</i> <i>Septoria</i> <i>Microsphaera</i> , <i>Phyllactinia</i> |
| Amaryllis | Anthraxnose Red blotch | <i>Colletotrichum</i> <i>Stagnospora</i> |
| Anemone, Jerusalem | Damping-off | <i>Rhizoctonia</i> |

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|--|---|---|
| Anthurium | Anthracnose Bacterial leaf spot Bacterial soft rot Leaf rot Leaf spot Root rot Root and stem rot Southern blight | <i>Gloeosporium</i> <i>Pseudomonas</i> , <i>Xanthomonas</i> <i>Erwinia</i> <i>Botrytis</i> <i>Alternaria</i> , <i>Cercospora</i> , <i>Phomopsis</i> , <i>Phyllosticta</i> , <i>Septoria</i> <i>Fusarium</i> , <i>Pythium</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Rhizoctonia</i> <i>Sclerotium rolfsii</i> |
| Aphelandra | Anthracnose Bacterial leaf spot Bacterial soft rot Leaf spot Root rot Root, crown and stem rot Southern blight | <i>Colletotrichum</i> <i>Pseudomonas</i> , <i>Xanthomonas</i> <i>Erwinia</i> <i>Alternaria</i> , <i>Cercospora</i> , <i>Corynespora</i> , <i>Myrothecium</i> <i>Pythium</i> , <i>Rhizoctonia</i> <i>Phytophthora</i> <i>Sclerotium rolfsii</i> |
| Arborvitae (Thuja) | Tip and twig blights or dieback Root rot Root and stem rot | <i>Alternaria</i> , <i>Cercospora</i> , <i>Coryneum</i> , <i>Pestalotiopsis</i> , <i>Phomopsis</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> <i>Rhizoctonia</i> |
| Aronia | Root rot | <i>Phytophthora</i> |
| Ardisia | Leaf spot Root rot Stem rot | <i>Cercospora</i> , <i>Mycosphaerella</i> , <i>Phyllosticta</i> <i>Phytophthora</i> <i>Fusarium</i> , <i>Rhizoctonia</i> , <i>Sclerotinia</i> |
| Areca palm | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Artemisia | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Ash | Anthracnose Heart rot Leaf spot Powdery mildew Rust | <i>Gloeosporium</i> <i>Ganoderma</i> <i>Cercospora</i> , <i>Cercosporidium</i> , <i>Cylindrosporium</i> <i>Oidium</i> <i>Puccinia</i> |
| Asian jasmine | Aerial blight Root rot | <i>Rhizoctonia</i> <i>Armillaria</i> , <i>Fusarium</i> |
| Asparagus fern | Anthracnose Blight Stem rot | <i>Colletotrichum</i> <i>Ascochyta</i> , <i>Cercospora</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Aspidistra | Anthracnose Leaf spot | <i>Colletotrichum</i> <i>Ascochyta</i> , <i>Cercospora</i> |
| Aster | Powdery mildew Root rot Rust Stem rot | <i>Erysiphe</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> <i>Puccinia</i> <i>Rhizoctonia</i> |
| Astilbe | Leaf spot Powdery Mildew | <i>Cercospora</i> <i>Erysiphe</i> |
| Aucuba | Anthracnose Leaf spot Root rot | <i>Gloeosporium</i> <i>Pestalotia</i> , <i>Phyllosticta</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |

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|---|---|--|
| Azalea | Damping-off Dieback Flower blight Foliage blight Leaf gall Leaf spot Powdery mildew Root rot Web blight | <i>Rhizoctonia</i> <i>Phytophthora</i> <i>Ovulinia</i> <i>Phytophthora</i> <i>Exobasidium</i> <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Pestalotia</i> , <i>Phyllosticta</i> <i>Microsphaera</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Rhizoctonia</i> |
| Baby's breath (<i>Gypsophila</i>) | Gray mold Leaf spot Root rot Stem Rot | <i>Botrytis</i> <i>Phyllosticta</i> <i>Phytophthora</i> , <i>Pythium</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Balsam (<i>Impatiens balsamina</i>) | Leaf spot Root rot Stem rot | <i>Cercospora</i> , <i>Septoria</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Banana shrub | Algal leaf spot Root rot | <i>Cephaleuros</i> <i>Phytophthora</i> , <i>Rhizoctonia</i> |
| Barberry | Bacterial leaf spot Leaf spot Powdery mildew Rust | <i>Pseudomonas</i> <i>Gloeosporium</i> <i>Erysiphe</i> , <i>Phyllactinia</i> <i>Cumminsiiella</i> , <i>Puccinia</i> |
| Bay, red | Leaf spot | <i>Cercospora</i> |
| Bee balm | Leaf spot | <i>Cercospora</i> |
| Beech, American | Leaf spot Powdery mildew | <i>Cercospora</i> <i>Phyllactinia</i> |
| Begonia | Anthrachnose Bacterial leaf spot Gray mold Leaf spot Powdery mildew Root rot Stem rot | <i>Colletotrichum</i> <i>Xanthomonas</i> <i>Botrytis</i> <i>Cercospora</i> , <i>Phyllosticta</i> , <i>Phomopsis</i> <i>Erysiphe</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Birch | Anthrachnose Leaf spot Powdery mildew | <i>Gloeosporium</i> <i>Septoria</i> <i>Phyllactinia</i> |
| Black cherry | Anthrachnose Leaf blister Leaf spot Powdery mildew Rust | <i>Colletotrichum</i> <i>Taphrina</i> <i>Cercospora</i> <i>Podosphaera</i> <i>Tranzschelia</i> |
| Bleeding heart | Leaf spot | <i>Cercospora</i> , <i>Colletotrichum</i> |
| Boston fern | Rust Web blight | <i>Desmella</i> <i>Rhizoctonia</i> |
| Bottlebrush | Gall | <i>Nectriella</i> |
| Bougainvillea | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Box elder | Anthrachnose Leaf spot Powdery mildew | <i>Gloeosporium</i> <i>Ascochyta</i> , <i>Cercospora</i> , <i>Septoria</i> <i>Microsphaera</i> , <i>Uncinula</i> |

Information in this section was last updated in October 2022 by R. Singh.

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| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|--|--|
| Cedar | Cedar-apple rust Leaf spot Needle blight Root rot | <i>Gymnosporangium</i> <i>Alternaria</i> <i>Cercospora</i> , <i>Phomopsis</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Celosia | Leaf spot Root rot | <i>Alternaria</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Ceanothus | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Chamaedorea | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Cherry-hawthorn | Leaf spot Rust | <i>Fabraea</i> <i>Gymnosporangium</i> |
| Cherry-laurel | Leaf spot Powdery mildew Root rot | <i>Cercospora</i> , <i>Septoria</i> <i>Podosphaera</i> <i>Phytophthora</i> |
| Chestnut | Powdery mildew | <i>Microsphaera</i> , <i>Phyllactinia</i> |
| Chinaberry | Leaf spot Powdery mildew | <i>Cercospora</i> <i>Phyllactinia</i> |
| Chinese elm | Anthraxnose Leaf spot Powdery mildew Root rot | <i>Colletotrichum</i> <i>Actinopelte</i> , <i>Phyllosticta</i> <i>Phyllactinia</i> <i>Armillaria</i> |
| Chinese evergreen | Powdery mildew Root rot | <i>Phyllactinia</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Chinese forget-me-not | Gray mold Leaf spot Stem rot | <i>Botrytis</i> <i>Cercospora</i> <i>Rhizoctonia</i> |
| Chinese lantern (Abutilon) | Leaf spot | <i>Cercospora</i> , <i>Phyllosticta</i> |
| Chinese parasol tree | Web blight | <i>Rhizoctonia</i> |
| Chinese pistachio | Leaf spot Thread blight | <i>Septoria</i> <i>Rhizoctonia</i> |
| Chocolate plant | Leaf spot | <i>Phyllosticta</i> |
| Christmas rose | Flower spot | <i>Botrytis</i> |
| Chrysanthemum | Anthraxnose Bacterial blight Damping-off Gray mold Leaf spot Powdery mildew Ray blight Root rot Rust Wilt | <i>Colletotrichum</i> <i>Pectobacterium</i> <i>Pythium</i> <i>Botrytis</i> <i>Alternaria</i> , <i>Septoria</i> <i>Erysiphe</i> <i>Ascochyta</i> , <i>Mycosphaerella</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Puccinia</i> <i>Fusarium</i> |
| Cineraria | Powdery mildew Root rot | <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Cissus | Leaf spot Root rot | <i>Cercospora</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Clarkia | Gray mold Root rot | <i>Botrytis</i> <i>Rhizoctonia</i> |
| Clematis | Leaf spot | <i>Ascochyta</i> , <i>Cercospora</i> |

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|--|--|---|
| Cleome | White mold | <i>Sclerotinia sclerotiorum</i> |
| Cleyera | Leaf spot | <i>Cercospora</i> |
| Cockscomb | Leaf spot Stem rot | <i>Cercospora</i> <i>Fusarium, Rhizoctonia</i> |
| Coleus | Downy mildew Leaf blight Root rot | <i>Peronospora</i> <i>Botrytis</i> <i>Phytophthora, Pythium, Rhizoctonia</i> |
| Columbine | Leaf spot Powdery mildew Root rot Rust | <i>Ascochyta, Septoria</i> <i>Erysiphe</i> <i>Phytophthora, Pythium, Rhizoctonia</i> <i>Puccinia</i> |
| Coneflower | Leaf spot Witch's broom | <i>Cercospora</i> <i>Phytoplasma</i> |
| Confederate jasmine | Anthraxnose Leaf spot Root rot Stem rot | <i>Colletotrichum</i> <i>Cercospora, Corynespora</i> <i>Armillaria</i> <i>Fusarium, Rhizoctonia</i> |
| Cordyline | Leaf spot | <i>Cercospora</i> |
| Coreopsis | Gray mold Leaf spot Rust Stem rot | <i>Botrytis</i> <i>Cercospora, Phyllosticta, Septoria</i> <i>Coleosporium</i> <i>Rhizoctonia</i> |
| Cornflower | Leaf spot Rust Root rot Stem rot White mold | <i>Cercospora, Septoria</i> <i>Puccinia</i> <i>Phytophthora</i> <i>Rhizoctonia</i> <i>Sclerotinia sclerotiorum</i> |
| Cosmos | Leaf spot Powdery mildew Stem rot | <i>Cercospora</i> <i>Erysiphe</i> <i>Rhizoctonia</i> |
| Cotoneaster | Leaf spot Root rot | <i>Cercospora, Phyllosticta</i> <i>Phytophthora, Pythium</i> |
| Cottonwood | Leaf blister Leaf spot Powdery mildew Rust | <i>Taphrina</i> <i>Cercospora, Septoria</i> <i>Uncinula</i> <i>Melampsora</i> |
| Crabapple | Leaf spot Powdery mildew Rust Scab | <i>Sphaeropsis</i> <i>Podosphaera</i> <i>Gymnosporangium</i> <i>Venturia</i> |
| Crape myrtle | Bacterial leaf spot Leaf spot Powdery mildew Root rot | <i>Xanthomonas</i> <i>Cercospora, Pestalotia, Phyllosticta</i> <i>Erysiphe, Phyllactinia</i> <i>Armillaria, Phytophthora, Pythium, Rhizoctonia</i> |
| Crassula | Leaf spot Powdery mildew Root rot | <i>Cercospora, Phomopsis</i> <i>Spaerotheca</i> <i>Phytophthora, Pythium</i> |
| Croton | Root rot | <i>Fusarium, Phytophthora, Rhizoctonia, Thielaviopsis</i> |
| Crown vetch | Anthraxnose Leaf spot | <i>Colletotrichum</i> <i>Cercospora</i> |
| Cycas or cycad | Root rot | <i>Phytophthora</i> |

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|--|--|---|
| Cypress | Canker Needle blight Root and crown rot Root rot Twig blight | <i>Seiridium</i> <i>Cercospora</i> <i>Armillaria</i> <i>Phytophthora</i> <i>Phomopsis</i> |
| Daffodil | Bulb rot Leaf scorch Root rot | <i>Fusarium</i> , <i>Penicillium</i> <i>Stagnospora</i> <i>Phytophthora</i> , <i>Rhizoctonia</i> |
| Dahlia | Blight Leaf spot Powdery mildew Root rot | <i>Botrytis</i> <i>Cercospora</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Daisy | Gray mold Leaf spot Powdery mildew Ray blight Rust Stem Rot | <i>Botrytis</i> <i>Cercospora</i> , <i>Phyllosticta</i> , <i>Septoria</i> <i>Erysiphe</i> <i>Mycosphaerella</i> <i>Puccinia</i> <i>Fusarium</i> , <i>Rhizoctonia</i> , <i>Sclerotinia</i> |
| Daphne | Leaf spot Root rot Stem rot | <i>Gloeosporium</i> <i>Phytophthora</i> , <i>Pythium</i> <i>Sclerotinia</i> |
| Daylily | Anthrachnose Blight Leaf spot Root and stem rot Rust | <i>Colletotrichum</i> <i>Botrytis</i> <i>Cercospora</i> , <i>Phomopsis</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Rhizoctonia</i> <i>Puccinia</i> |
| Delphinium | Gray mold Leaf spot Powdery mildew Root rot Rust Stem rot | <i>Botrytis</i> <i>Ascochyta</i> , <i>Cercospora</i> , <i>Phyllosticta</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Puccinia</i> <i>Rhizoctonia</i> , <i>Sclerotinia</i> |
| Deutzia | Leaf spot Root rot | <i>Cercospora</i> <i>Rhizoctonia</i> |
| Dianthus | Root rot Rust | <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Uromyces</i> |
| Dieffenbachia | Bacterial stem rot Leaf spot Root rot | <i>Erwinia</i> <i>Leptosphaeria</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Dogwood | Blight Leaf spot Powdery mildew Root rot | <i>Cercospora</i> <i>Septoria</i> <i>Microsphaera</i> , <i>Phyllactinia</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Dracaena | Leaf spot Root rot | <i>Fusarium</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Duranta skyflower | Leaf spot | <i>Cercospora</i> |
| Dusty miller | Root rot | <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Dutch iris | Bulb rot | <i>Sclerotium</i> |
| Dwarf bamboo | Leaf spot Rust | <i>Corynespora</i> <i>Puccinia</i> |

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|--|---|---|
| Easter lily | Bulb rot Root rot | <i>Fusarium</i> , <i>Penicillium</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Echeveria | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Elaeagnus | Leaf spot Root rot Stem canker Twig dieback Tip blight | <i>Cercospora</i> <i>Phytophthora</i> <i>Phytophthora</i> <i>Fusarium</i> <i>Gloeosporium</i> |
| Elm | Anthraxnose Bacterial leaf scorch Leaf spot Powdery mildew Root rot | <i>Gloeosporium</i> <i>Xylella fastidiosa</i> <i>Cercospora</i> , <i>Gnomonia</i> <i>Microsphaera</i> , <i>Phyllactinia</i> , <i>Uncinula</i> <i>Armillaria</i> , <i>Phytophthora</i> |
| Euonymus | Anthraxnose Leaf spot Powdery mildew Root rot | <i>Colletotrichum</i> <i>Cercospora</i> , <i>Phyllosticta</i> , <i>Ramularia</i> , <i>Septoria</i> <i>Microsphaera</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Farkleberry | Leaf spot | <i>Septoria</i> |
| Fatsia | Anthraxnose Leaf spot Root rot | <i>Colletotrichum</i> <i>Alternaria</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Ferns | Blight Gray mold Leaf spot Root rot | <i>Rhizoctonia</i> <i>Botrytis</i> <i>Cercospora</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Fern (Japanese holly fern) | Mosaic | <i>Japanese holly fern mosaic virus</i> |
| Festuca | Leaf spot Root rot Rust | <i>Ascochyta</i> , <i>Septoria</i> <i>Rhizoctonia</i> <i>Puccinia</i> |
| Ficus | Leaf spot Root rot | <i>Cercospora</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Firethorn | Scab | <i>Fusicladium</i> |
| Fittonia | Root rot | <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Forget-me-not | Gray mold Powdery mildew Rust | <i>Botrytis</i> <i>Erysiphe</i> <i>Puccinia</i> |
| Forsythia | Anthraxnose Leaf spot Root rot | <i>Gloeosporium</i> <i>Alternaria</i> <i>Rhizoctonia</i> |
| Four o'clock | Leaf spot Rust Stem Rot | <i>Cercospora</i> <i>Puccinia</i> <i>Rhizoctonia</i> |
| Foxglove | Leaf spot Root rot Stem Rot | <i>Colletotrichum</i> , <i>Phyllosticta</i> <i>Phytophthora</i> , <i>Pythium</i> <i>Rhizoctonia</i> |
| Fringe-tree | Leaf spot Powdery mildew | <i>Cercospora</i> , <i>Septoria</i> <i>Phyllactinia</i> |

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|---|---|--|
| Fuchsia | Blight Dieback Leaf spot Rust | <i>Botrytis</i> <i>Phomopsis</i> <i>Septoria</i> <i>Pucciniastrum</i> |
| Gaillardia | Leaf spot Powdery mildew Root rot | <i>Septoria</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Gardenia | Anthraxnose Canker Leaf spot Petal blight Powdery mildew Root rot | <i>Colletotrichum</i> <i>Phomopsis</i> <i>Cercospora</i> <i>Botrytis</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Geranium | Blight Powdery mildew Root rot Rust | <i>Botrytis</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Puccinia</i> |
| Gerbera | Powdery mildew Root rot | <i>Erysiphe</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Ginkgo | Anthraxnose | <i>Colletotrichum</i> |
| Gladiolus | Corm rot Damping-off Flower spot Leaf spot Neck dry rot | <i>Fusarium</i> , <i>Penicillium</i> <i>Fusarium</i> , <i>Rhizoctonia</i> <i>Botrytis</i> <i>Curvularia</i> , <i>Stemphylium</i> <i>Sclerotium</i> |
| Gloxinia | Root rot | <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Golden dewdrop (<i>Duranta erecta</i>) | Leaf blight | <i>Xanthomonas</i> |
| Golden rain | Leaf spot | <i>Cercospora</i> |
| Grapeleaf ivy | Anthraxnose Leaf spot Powdery mildew | <i>Colletotrichum</i> <i>Cercospora</i> <i>Oidium</i> |
| Gynura | Root rot | <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Gypsophila | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Hackberry | Leaf spot Powdery mildew | <i>Phyllosticta</i> <i>Uncinula</i> |
| Halesia | Leaf spot | <i>Cercospora</i> |
| Hawthorne | Fire blight Leaf spot Powdery mildew Root rot Rust Scab Stem canker | <i>Erwinia amylovora</i> <i>Fabraea</i> <i>Phyllactinia</i> , <i>Podosphaera</i> <i>Rhizoctonia</i> <i>Gymnosporangium</i> <i>Venturia</i> <i>Fusarium</i> |
| Heather | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Hen and chickens | Leaf spot Root rot | <i>Cercospora</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |

Commercial Crop Production

Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|---|--|
| Hibiscus | Anthracnose Gray mold Leaf spot Powdery mildew Root rot Rust Stem rot | <i>Colletotrichum</i> <i>Botrytis</i> <i>Cercospora</i> , <i>Phyllosticta</i> <i>Erysiphe</i> , <i>Microsphaera</i> <i>Phytophthora</i> , <i>Pythium</i> <i>Kuehneola</i> <i>Fusarium</i> , <i>Rhizoctonia</i> , <i>Sclerotinia</i> |
| Hickory | Anthracnose Leaf spot Powdery mildew | <i>Gnomonia</i> <i>Cercospora</i> , <i>Septoria</i> <i>Microsphaera</i> |
| Holly | Leaf spot Powdery mildew Purple spot Root rot Stem canker Twig dieback Web blight | <i>Gloeosporium</i> , <i>Phyllosticta</i> <i>Microsphaera</i> <i>Cercospora</i> <i>Phytophthora</i> , <i>Rhizoctonia</i> <i>Botryodiplodia</i> <i>Phoma</i> <i>Rhizoctonia</i> |
| Hollyhock | Anthracnose Leaf spot Petal blight Powdery mildew Rust | <i>Colletotrichum</i> <i>Asochyta</i> , <i>Cercospora</i> <i>Botrytis</i> <i>Erysiphe</i> <i>Puccinia</i> |
| Honey locust | Leaf spot Powdery mildew | <i>Cercospora</i> <i>Microsphaera</i> |
| Honeysuckle | Blight Leaf spot Powdery mildew Root rot | <i>Herpobasidium</i> <i>Corynespora</i> , <i>Phyllosticta</i> <i>Microsphaera</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Hornbeam | Leaf Blister Powdery mildew | <i>Taphrina</i> <i>Microsphaera</i> , <i>Phyllactinia</i> |
| Hosta | Crown rot Leaf spot Stem rot | <i>Botrytis</i> <i>Colletotrichum</i> , <i>Phyllosticta</i> <i>Rhizoctonia</i> |
| Hoya | Root rot | <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Huckleberry | Leaf spot | <i>Phyllosticta</i> |
| Hyacinth | Black rot | <i>Sclerotinia</i> |
| Hydrangea | Blight Leaf spot Powdery mildew Root rot Rust | <i>Botrytis</i> <i>Ascochyta</i> , <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Phyllosticta</i> , <i>Septoria</i> <i>Erysiphe</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> <i>Pucciniastrum</i> |
| Ilex | Root rot | <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Impatiens | Downy mildew Leaf spot Root rot | <i>Plasmopara obducens</i> <i>Cercospora</i> , <i>Septoria</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|---|---|--|
| Iris | Anthracnose Blossom blight Bulb rot Crown rot Leaf spot Root rot Rust | <i>Colletotrichum</i> <i>Botrytis</i> <i>Fusarium</i> , <i>Penicillium</i> <i>Pellicularia</i> <i>Didymellina</i> <i>Rhizoctonia</i> <i>Puccinia</i> |
| Iris, African | Root rot | <i>Phytophthora</i> |
| Ivy | Bacterial leaf spot Blight Root rot | <i>Xanthomonas</i> <i>Colletotrichum</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Ivy, Algerian | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Ivy, English | Gray mold Leaf spot Powdery mildew Root rot Stem rot | <i>Botrytis</i> <i>Cercospora</i> , <i>Colletotrichum</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Japanese blueberry | Root rot | <i>Phytophthora</i> |
| Japanese plum (<i>Prunus</i> sp.) | Anthracnose Bacterial leaf scorch Leaf spot Scab | <i>Colletotrichum</i> <i>Xylella fastidiosa</i> <i>Septoria</i> <i>Fusicladium</i> |
| Japanese yew | Leaf spot Root rot | <i>Cercospora</i> , <i>Phomopsis</i> <i>Armillaria</i> , <i>Phytophthora</i> |
| Jasmine | Leaf spot Root rot Stem canker | <i>Colletotrichum</i> <i>Phytophthora</i> <i>Phoma</i> |
| Java | Leaf spot | <i>Cercospora</i> , <i>Septoria</i> |
| Jerusalem cherry | Anthracnose Leaf spot Stem rot | <i>Colletotrichum</i> <i>Phyllosticta</i> <i>Rhizoctonia</i> |
| Jerusalem thorn | Dieback Leaf spot Powdery mildew | <i>Phomopsis</i> <i>Phyllosticta</i> <i>Erysiphe</i> |
| Jujube | Leaf spot Rust | <i>Cercospora</i> <i>Phakopsora</i> |
| Juniper | Blight Leaf spot Root rot Rust | <i>Phomopsis</i> <i>Cercospora</i> <i>Armillaria</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Gymnosporangium</i> |
| Justica | Anthracnose Leaf spot | <i>Colletotrichum</i> <i>Cercospora</i> , <i>Corynespora</i> |
| Kalanchoe | Leaf spot Powdery mildew Root rot | <i>Cercospora</i> <i>Sphaerotheca</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Lantana | Leaf spot Root rot Rust | <i>Colletotrichum</i> <i>Rhizoctonia</i> <i>Puccinia</i> |
| Larkspur | Root rot Stem rot | <i>Phytophthora</i> , <i>Pythium</i> <i>Rhizoctonia</i> |

Commercial Crop Production

Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|----------------------------------|---|--|
| Lavender | Root rot | <i>Phytophthora</i> |
| Leatherleaf fern | Blight Leaf spot | <i>Ascochyta</i> , <i>Rhizoctonia</i> <i>Cercospora</i> , <i>Cylindrocladium</i> |
| Leopard plant | Root rot | <i>Rhizoctonia</i> |
| Leucothoe | Leaf spot Root rot | <i>Cercospora</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Liatris | Leaf spot Rust | <i>Phyllosticta</i> , <i>Septoria</i> <i>Coleosporium</i> , <i>Puccinia</i> |
| Ligularia | Root rot Stem rot | <i>Rhizoctonia</i> <i>Rhizoctonia</i> |
| Ligustrum | Leaf spot Powdery mildew Root rot Twig canker Web blight | <i>Cercospora</i> <i>Microsphaera</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> <i>Botryodiplodia</i> <i>Rhizoctonia</i> |
| Lily | Blight Gray mold Root rot | <i>Phytophthora</i> <i>Botrytis</i> <i>Rhizoctonia</i> |
| Linden | Anthrachnose Leaf spot | <i>Gloeosporium</i> <i>Cercospora</i> |
| Lipstick | Leaf spot | <i>Cercospora</i> |
| Liriope | Anthrachnose Crown rot Leaf and crown rot Leaf spot Root rot | <i>Colletotrichum</i> <i>Fusarium</i> <i>Phytophthora</i> <i>Cercospora</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Lobelia | Leaf spot Root rot | <i>Cercospora</i> , <i>Septoria</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Locust, black | Anthrachnose Leaf spot Powdery mildew | <i>Colletotrichum</i> <i>Cercospora</i> <i>Microsphaera</i> |
| Loquat | Bacterial leaf scorch Fire blight Root rot Twig dieback | <i>Xylella fastidiosa</i> <i>Erwinia amylovora</i> <i>Armillaria</i> <i>Botryodiplodia</i> |
| Loropetalum | Bacterial stem gall Root rot | <i>Pseudomonas</i> <i>Armillaria</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Lupine | Gray mold Leaf spot Powdery mildew Rust Stem rot | <i>Botrytis</i> <i>Cercospora</i> , <i>Ramularia</i> <i>Erysiphe</i> <i>Uromyces</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Magnolia | Algal leaf spot Leaf spot Spot anthracnose Root rot Tip dieback | <i>Cephaleuros</i> <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Gloeosporium</i> , <i>Septoria</i> <i>Elsinoe</i> <i>Armillaria</i> , <i>Phytophthora</i> , <i>Pythium</i> <i>Phoma</i> |
| Mahonia | Leaf spot | <i>Cercospora</i> , <i>Phyllosticta</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|---|---|---|
| Maiden Grass | Sheath blight | <i>Sclerotinia</i> |
| Maple | Anthrachnose Leaf spot Powdery mildew Root rot | <i>Gloeosporium</i> <i>Alternaria</i> , <i>Phyllosticta</i> <i>Uncinula</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Maranta | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Marigold | Head blight Leaf spot Root rot Rust Stem rot | <i>Botrytis</i> <i>Ascochyta</i> , <i>Cercospora</i> , <i>Septoria</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Puccinia</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |
| Mimosa | Leaf spot | <i>Cercospora</i> |
| Mock orange | Blight Leaf spot Powdery mildew Rust | <i>Botrytis</i> <i>Cercospora</i> <i>Phyllactinia</i> <i>Gymnosporangium</i> |
| Mondo grass (<i>Ophiopogon</i> sp.) | Anthrachnose Leaf and crown rot Root rot | <i>Colletotrichum</i> <i>Phytophthora</i> <i>Rhizoctonia</i> |
| Morning glory | Leaf spot Rust | <i>Cercospora</i> <i>Coleosporium</i> , <i>Puccinia</i> |
| Mulberry | Bacterial leaf scorch Leaf spot Powdery mildew Rust | <i>Xylella fastidiosa</i> <i>Cercospora</i> <i>Uncinula</i> <i>Cerotelium</i> |
| Mulberry, French | Leaf spot | <i>Cercospora</i> |
| Nandina | Anthrachnose Bacterial leaf scorch Leaf spot | <i>Glomerella</i> <i>Xylella fastidiosa</i> <i>Cercospora</i> |
| Narcissus | Blight Root rot | <i>Botrytis</i> <i>Rhizoctonia</i> |
| Nasturium | Gray mold Leaf spot Root rot | <i>Botrytis</i> <i>Cercospora</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Natal plum | Anthrachnose Blight Leaf spot Powdery mildew | <i>Colletotrichum</i> <i>Rhizoctonia</i> <i>Phyllosticta</i> <i>Oidium</i> |
| Nematanthus | Root rot | <i>Phytophthora</i> |
| Nemesia | Necrotic spot | <i>Impatiens necrotic spot virus</i> |
| Nephrolepis | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Nephthytis | Leaf spot Root rot | <i>Cephalosporium</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Norfolk Island pine | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Oak | Anthrachnose Bacterial flux Bacterial leaf scorch Heart rot Leaf blister Leaf spot | <i>Gloeosporium</i> <i>Bacteria</i> <i>Xylella fastidiosa</i> <i>Ganoderma</i> , <i>Polyporus</i> <i>Taphrina</i> <i>Actinopelte</i> , <i>Cercospora</i> , <i>Septoria</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|--|--|
| | Powdery mildew Rust | <i>Erysiphe</i> , <i>Microsphaera</i> , <i>Phyllactinia</i> , <i>Sphaerotheca</i> <i>Cronartium</i> |
| Oleander | Anthraxnose Bacterial leaf scorch Leaf spot Spot anthracnose | <i>Gloeosporium</i> <i>Xylella fastidiosa</i> <i>Cercospora</i> , <i>Septoria</i> <i>Sphaceloma</i> |
| Orchid | Black rot Blossom blight Root rot | <i>Phytophthora</i> <i>Botrytis</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> |
| Orchid (<i>Phalaenopsis</i> sp.) | Mosaic | <i>Cymbidium mosaic virus</i> |
| Oregon grape | Leaf spot Rust | <i>Cercospora</i> <i>Puccinia</i> |
| Osage orange | Gray mold Leaf spot Rust | <i>Botrytis</i> <i>Cercospora</i> , <i>Ovularia</i> <i>Cerotelium</i> |
| Osmanthus | Bacterial leaf scorch Leaf spot | <i>Xylella fastidiosa</i> <i>Phyllosticta</i> , <i>Septoria</i> |
| Oyster plant | Leaf spot | <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Curvularia</i> |
| Oxalis | Rust | <i>Puccinia</i> |
| Pachysandra | Blight Leaf spot Stem rot | <i>Volutella</i> <i>Phyllosticta</i> <i>Rhizoctonia</i> |
| Palm, Canary Island Date | Rachis blight Fusarium wilt Lethal bronzing | <i>Botryodiplodia</i> , <i>Serenomyces</i> <i>Fusarium oxysporum</i> f. sp. <i>canariensis</i> <i>Candidatus Phytoplasma palmae</i> 16SrV-D |
| Palm, Date | Heart rot Lethal bronzing | <i>Ganoderma</i> <i>Candidatus Phytoplasma palmae</i> 16SrV-D |
| Palm, Fan | Bud rot | <i>Phytophthora</i> |
| Palm, Parlor | Leaf spot | <i>Helminthosporium</i> |
| Palm, Sabal | Heart rot Leaf spot Lethal bronzing Root rot | <i>Ganoderma</i> <i>Ascochyta</i> , <i>Phyllosticta</i> <i>Candidatus Phytoplasma palmae</i> 16SrV-D <i>Rhizoctonia</i> |
| Palm, Sylvester | Leaf spot Lethal yellowing | <i>Graphiola</i> <i>Candidatus Phytoplasma palmae</i> 16SrV-A |
| Palm, Washingtonia | Leaf spot | <i>Cercospora</i> , <i>Colletotrichum</i> |
| Palm, Windmill | Bud or heart rot | <i>Phytophthora</i> |
| Palm, Chinese Windmill | Lethal bronzing Lethal yellowing | <i>Candidatus Phytoplasma palmae</i> 16SrV-D <i>Candidatus Phytoplasma palmae</i> 16SrV-A |
| Pansy | Anthraxnose Blight Downy mildew Leaf spot Powdery mildew Root rot Rust Stem rot | <i>Colletotrichum</i> <i>Botrytis</i> <i>Peronospora</i> <i>Alternaria</i> , <i>Cercospora</i> , <i>Phyllosticta</i> , <i>Septoria</i> <i>Sphaerotheca</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> <i>Puccinia</i> <i>Rhizoctonia</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|--|--|
| Partridge berry | Stem rot | <i>Rhizoctonia</i> |
| Paulownia | Leaf spot Powdery mildew | <i>Phyllosticta</i> <i>Phyllactinia, Uncinula</i> |
| Pawpaw | Leaf spot | <i>Phyllosticta, Septoria</i> |
| Pearl bush | Fire blight | <i>Erwinia amylovora</i> |
| Pear, flowering | Bacterial leaf scorch Fire blight Powdery mildew | <i>Xylella fastidiosa</i> <i>Erwinia amylovora</i> <i>Podosphaera</i> |
| Pentas | Leaf spot Powdery mildew Stem rot | <i>Cercospora, Corynespora, Phyllosticta</i> <i>Oidium</i> <i>Fusarium, Rhizoctonia</i> |
| Peony | Aerial blight Blossom blight Leaf spot | <i>Phytophthora</i> <i>Botrytis</i> <i>Alternaria</i> |
| Peperomia | Leaf spot Root rot | <i>Cercospora</i> <i>Phytophthora, Pythium, Rhizoctonia</i> |
| Periwinkle | Gray mold Leaf spot Root rot Web blight | <i>Botrytis</i> <i>Colletotrichum, Phyllosticta</i> <i>Phytophthora, Rhizoctonia</i> <i>Rhizoctonia</i> |
| Persimmon | Anthracnose Powdery mildew | <i>Gloeosporium</i> <i>Podosphaera</i> |
| Petunia | Aerial blight Gray mold Leaf spot Powdery mildew Root rot | <i>Phytophthora</i> <i>Botrytis</i> <i>Ascochyta, Cercospora</i> <i>Oidium</i> <i>Phytophthora, Pythium, Rhizoctonia</i> |
| Philodendron | Aerial blight Bacterial Leaf spot Leaf spot Root rot | <i>Phytophthora</i> <i>Erwinia</i> <i>Dactylaria</i> <i>Phytophthora, Pythium, Rhizoctonia</i> |
| Phlox | Anthracnose Powdery mildew Root rot Rust Southern blight Stem Rot | <i>Colletotrichum</i> <i>Erysiphe</i> <i>Phytophthora, Pythium</i> <i>Puccinia</i> <i>Sclerotium rolfsii</i> <i>Rhizoctonia</i> |
| Phlox, perennial | Gray mold Leaf spot Powdery mildew Rust Stem rot | <i>Botrytis</i> <i>Cercospora, Septoria</i> <i>Erysiphe</i> <i>Puccinia, Uromyces</i> <i>Rhizoctonia, Sclerotinia</i> |
| Photinia | Leaf spot Powdery mildew Root rot Rust Twig dieback | <i>Cercospora, Entomosporium</i> <i>Oidium</i> <i>Fusarium, Phytophthora, Pythium, Rhizoctonia,</i> <i>Thielaviopsis</i> <i>Gymnosporangium</i> <i>Botryodiplodia</i> |
| Pieris | Dieback Leaf spot Root rot | <i>Phytophthora</i> <i>Phyllosticta</i> <i>Phytophthora, Pythium</i> |
| Pilea | Root rot | <i>Phytophthora, Pythium</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|---|---|
| Pink | Gray mold Leaf spot Root rot Stem rot | <i>Botrytis</i> <i>Septoria</i> <i>Phytophthora</i> , <i>Pythium</i> <i>Rhizoctonia</i> |
| Pine | Blight Brown spot Canker Needle cast Root rot Rust Tip blight Wilt | <i>Lophodermella</i> <i>Scirrhia</i> <i>Scleroderris</i> <i>Lophodermium</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Cronartium</i> <i>Sirococcus</i> <i>Pine wilt nematode</i> |
| Pineapple guava | Leaf spot | <i>Cercospora</i> |
| Pittosporum | Leaf spot Root rot | <i>Cercospora</i> , <i>Phyllosticta</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Plane-tree | Powdery mildew | <i>Microsphaera</i> |
| Plumbago | Leaf spot Powdery mildew | <i>Cercospora</i> <i>Oidium</i> |
| Podocarpus | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Poinsettia | Blight Mosaic virus Root rot Scab | <i>Amphobotrys</i> , <i>Botrytis</i> <i>Poinsettia mosaic virus</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Sphaceloma</i> |
| Pomegranate | Anthraxnose Spot anthracnose | <i>Colletotrichum</i> <i>Sphaceloma</i> |
| Poplar | Leaf spot Powdery mildew Rust | <i>Marssonina</i> <i>Uncinula</i> <i>Melampsora</i> |
| Poppy | Gray mold Leaf spot Stem rot | <i>Botrytis</i> <i>Cercospora</i> <i>Rhizoctonia</i> |
| Portulaca | Root rot Stem rot | <i>Phytophthora</i> , <i>Pythium</i> <i>Rhizoctonia</i> |
| Potentilla | Rust | <i>Phragmidium</i> |
| Pothos | Leaf spot Root rot | <i>Alternaria</i> , <i>Fusarium</i> , <i>Helminthosporium</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Prayer plant | Leaf spot | <i>Helminthosporium</i> |
| Primrose | Blight Root rot | <i>Botrytis</i> <i>Phytophthora</i> , <i>Pythium</i> |
| Privet | Leaf spot Powdery mildew | <i>Cercospora</i> <i>Microsphaera</i> |
| Pyracantha | Fire blight Leaf spot Powdery mildew Scab | <i>Erwinia amylovora</i> <i>Fabraea</i> <i>Podosphaera</i> <i>Venturia</i> |
| Quince | Leaf spot Rust | <i>Fabraea</i> <i>Gymnosporangium</i> |
| Redbud | Leaf spot | <i>Cercospora</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|--|---|
| Rose | Black spot Blossom blight Crown gall Crown rot Downy mildew Leaf spot Powdery mildew Root rot Rust Rose rosette disease Spot anthracnose Stem canker Storage rot | <i>Diplocarpon</i> <i>Botrytis</i> <i>Agrobacterium tumefaciens</i> <i>Phytophthora</i> <i>Peronospora sparsa</i> <i>Alternaria, Cercospora</i> <i>Sphaerotheca</i> <i>Armillaria, Phytophthora, Pythium, Rhizoctonia</i> <i>Phragmidium</i> <i>Rose rosette virus</i> <i>Elsinoe</i> <i>Botryodiplodia</i> <i>Botrytis</i> |
| Rose of Sharon | Leaf spot | <i>Cercospora, Cristulariella, Phyllosticta</i> |
| Rudbeckia | Leaf spot Powdery mildew Rust | <i>Cercospora, Septoria</i> <i>Erysiphe</i> <i>Uromyces</i> |
| Russian olive | Leaf spot Rust Stem canker | <i>Cercospora</i> <i>Puccinia</i> <i>Phytophthora</i> |
| Sage, Texas | Powdery mildew | <i>Oidium</i> |
| St. John's-wort | Rust | <i>Uromyces</i> |
| Salvia | Blight Downy mildew Leaf spot Mosaic Root rot Root and stem rot Rust | <i>Botrytis</i> <i>Peronospora</i> <i>Cercospora</i> <i>Clerodendron golden mosaic China virus</i> <i>Phytophthora, Pythium</i> <i>Rhizoctonia</i> <i>Puccinia</i> |
| Sansevieria | Anthrachnose Root rot | <i>Colletotrichum</i> <i>Phytophthora, Pythium</i> |
| Santolina | Blight | <i>Rhizoctonia</i> |
| Sassafras | Leaf spot Laurel wilt Powdery mildew | <i>Phyllosticta, Septoria</i> <i>Raffaelea lauricola</i> <i>Phyllactinia</i> |
| Scabiosa | Leaf spot Powdery mildew Rust | <i>Cercospora, Ramularia, Septoria</i> <i>Erysiphe</i> <i>Puccinia</i> |
| Schefflera | Anthrachnose Blight Leaf spot Root rot Twig blight | <i>Colletotrichum</i> <i>Alternaria</i> <i>Cercospora</i> <i>Phytophthora, Pythium, Rhizoctonia</i> <i>Pestalotia, Phomopsis</i> |
| Sedum | Anthrachnose Leaf spot Powdery mildew Root rot Stem rot | <i>Colletotrichum</i> <i>Cercospora, Corynespora, Phyllosticta, Septoria</i> <i>Erysiphe</i> <i>Phytophthora, Pythium</i> <i>Fusarium, Rhizoctonia</i> |
| Seedlings, general | Damping-off | <i>Pythium, Rhizoctonia</i> |
| Sempervivum | Root rot | <i>Phytophthora, Pythium</i> |
| Shasta daisy | Root rot | <i>Phytophthora, Pythium</i> |
| Sinningia | Root rot | <i>Phytophthora, Pythium</i> |

Commercial Crop Production

Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|---|--|
| Snapdragon | Blight Downy mildew Leaf spot Powdery mildew Root rot Rust Stem rot White mold | <i>Botrytis</i> <i>Peronospora</i> <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Phyllosticta</i> <i>Erysiphe</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> <i>Puccinia</i> <i>Rhizoctonia</i> <i>Sclerotinia sclerotiorum</i> |
| Sourwood | Leaf spot | <i>Cercospora</i> , <i>Phyllosticta</i> |
| Spathiphyllum | Leaf spot Root rot Stem blight | <i>Alternaria</i> , <i>Colletotrichum</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Rhizoctonia</i> |
| Spider plant | Downy mildew Leaf spot | <i>Peronospora</i> <i>Cercospora</i> |
| Spiraea | Leaf spot Powdery mildew | <i>Cercospora</i> <i>Podosphaera</i> |
| Star magnolia | Leaf spot | <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Phyllosticta</i> |
| Statice | Anthracnose Leaf blight Leaf spot Root rot | <i>Colletotrichum</i> <i>Alternaria</i> , <i>Botrytis</i> , <i>Cercospora</i> <i>Alternaria</i> , <i>Botrytis</i> , <i>Fusarium</i> , <i>Helminthosporium</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Stock | Gray mold Leaf spot White rust | <i>Botrytis</i> <i>Alternaria</i> <i>Albugo</i> |
| Stokesia | Head blight Leaf spot | <i>Botrytis</i> <i>Ascochyta</i> , <i>Cercospora</i> , <i>Phyllosticta</i> |
| Strawberry geranium | Leaf spot | <i>Cercospora</i> |
| Strawflower | Downy mildew | <i>Bremia</i> |
| Stromanthe | Root rot | <i>Phytophthora</i> , <i>Pythium</i> |
| Sumac | Leaf blister Leaf spot Rust | <i>Taphrina</i> <i>Cercospora</i> , <i>Septoria</i> <i>Pileolaria</i> |
| Sunflower | Downy mildew Leaf and stem blight Leaf spot Powdery mildew Rust | <i>Plasmopara</i> <i>Alternariaster helianthi</i> <i>Cercospora</i> , <i>Septoria</i> <i>Erysiphe</i> <i>Puccinia</i> |
| Swamp red maple | Root rot | <i>Phytophthora</i> |
| Sweet gum | Anthracnose Leaf spot | <i>Gloeosporium</i> <i>Cercospora</i> , <i>Septoria</i> |
| Sweet olive | Anthracnose Bacterial leaf scorch Root rot | <i>Colletotrichum</i> <i>Xylella fastidiosa</i> <i>Armillaria</i> , <i>Phytophthora</i> |
| Sweet pea | Downy mildew Gray mold Leaf spot Powdery mildew Rust Stem rot | <i>Peronospora</i> <i>Botrytis</i> <i>Ascochyta</i> , <i>Colletotrichum</i> , <i>Phyllosticta</i> <i>Erysiphe</i> , <i>Microsphaera</i> <i>Uromyces</i> <i>Rhizoctonia</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|--|--|
| Sweet william | Leaf spot | <i>Heterosporium</i> |
| Sycamore | Anthracnose Leaf spot Root rot | <i>Gloeosporium</i> <i>Cercospora</i> , <i>Septoria</i> , <i>Tubakia</i> <i>Phytophthora</i> |
| Syngonium | Leaf spot Root rot | <i>Cephalosporium</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |
| Tallow | Leaf spot | <i>Phomopsis</i> , <i>Phyllosticta</i> |
| Tecoma | Root rot | <i>Phytophthora</i> |
| Titi | Leaf spot Root rot | <i>Phyllosticta</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> |
| Tritoma | Anthracnose | <i>Colletotrichum</i> |
| Tuberous begonia | Leaf spot Powdery mildew Rot | <i>Cercospora</i> , <i>Phomopsis</i> , <i>Phyllosticta</i> <i>Erysiphe</i> <i>Pythium</i> , <i>Rhizoctonia</i> |
| Tulips | Anthracnose Blight Bulb rot Root rot | <i>Gloeosporium</i> <i>Botrytis</i> <i>Fusarium</i> , <i>Penicillium</i> <i>Rhizoctonia</i> |
| Tulip poplar | Anthracnose Leaf spot Powdery mildew | <i>Colletotrichum</i> <i>Phyllosticta</i> , <i>Septoria</i> <i>Oidium</i> |
| Tung oil | Anthracnose Leaf spot | <i>Glomerella</i> <i>Cercospora</i> , <i>Phyllosticta</i> |
| Tupelo | Leaf spot Rust | <i>Cercospora</i> , <i>Phyllosticta</i> <i>Aplopsora</i> |
| Turkey ivy | Leaf spot | <i>Ramularia</i> , <i>Septoria</i> |
| Verbena | Flower blight Leaf spot Powdery mildew Root rot Rust | <i>Botrytis</i> <i>Cercospora</i> , <i>Septoria</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Puccinia</i> |
| Viburnum | Anthracnose Leaf spot Powdery mildew Root rot Rust Stem canker | <i>Colletotrichum</i> <i>Cercospora</i> <i>Microsphaera</i> <i>Armillaria</i> <i>Puccinia</i> <i>Botryosphaeria</i> |
| Vinca | Flower blight Root rot Slime mold Web blight | <i>Botrytis</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Stemonitis</i> <i>Rhizoctonia</i> |
| Viola | Root rot | <i>Phytophthora</i> |
| Violet | Downy mildew Gray mold Leaf spot Powdery mildew Root rot Rust Spot anthracnose Stem rot | <i>Bremiella</i> <i>Botrytis</i> <i>Cercospora</i> , <i>Colletotrichum</i> , <i>Phyllosticta</i> <i>Sphaerotheca</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Puccinia</i> <i>Sphaceloma</i> <i>Fusarium</i> , <i>Rhizoctonia</i> |

Commercial Crop Production Ornamentals

| Ornamental plant (Latin name) | Diseases | Pathogen (Genus and/or species) |
|--|---|--|
| Vitex | Leaf spot | <i>Cercospora</i> |
| Walnut | Leaf spot Powdery mildew | <i>Gnomonia</i> <i>Microsphaera</i> |
| Wandering yew | Gray mold Leaf spot Root rot | <i>Botrytis</i> <i>Cercospora</i> , <i>Colletotrichum</i> <i>Fusarium</i> , <i>Phytophthora</i> , <i>Rhizoctonia</i> |
| Wax myrtle | Leaf spot Rust | <i>Cercospora</i> , <i>Phyllosticta</i> , <i>Septoria</i> <i>Gymnosporangium</i> |
| Weigela | Leaf spot | <i>Cercospora</i> |
| Willow | Powdery mildew Rust Twig blight | <i>Uncinula</i> <i>Melampsora</i> <i>Diplodia</i> |
| Witch hazel | Leaf spot Powdery mildew | <i>Phyllosticta</i> <i>Podosphaera</i> |
| Yarrow | Anthrachnose Powdery mildew Root rot Rust | <i>Colletotrichum</i> <i>Erysiphe</i> <i>Rhizoctonia</i> <i>Puccinia</i> |
| Yaupon | Anthrachnose Leaf spot | <i>Colletotrichum</i> <i>Diplodia</i> , <i>Macrophoma</i> , <i>Phyllosticta</i> |
| Yew | Root rot Twig blight | <i>Armillaria</i> , <i>Phytophthora</i> , <i>Pythium</i> <i>Physalospora</i> |
| Yucca | Anthrachnose | <i>Colletotrichum</i> |
| Zinnia | Bacterial leaf spot Blight Leaf blight Leaf spot Powdery mildew Root rot Stem rot | <i>Xanthomonas</i> <i>Botrytis</i> <i>Alternaria</i> <i>Cercospora</i> <i>Erysiphe</i> <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> <i>Fusarium</i> , <i>Rhizoctonia</i> , <i>Sclerotinia</i> |
| Zygocactus | Root rot | <i>Fusarium</i> , <i>Phytophthora</i> , <i>Pythium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> |

Commercial Crop Production Ornamentals

Table 2. Diseases of ornamentals and fungicides and bactericides for disease management.

| Disease | Fungicides and Bactericides |
|---|---|
| Aerial blight (<i>Phytophthora</i>) | ametoctradin + dimethomorph aluminum tris azoxystrobin boscalid + pyraclostrobin chlorothalonil copper hydroxide cyazofamid dimethomorph maneb mancozeb phosphite trifloxystrobin |
| Aerial blight (<i>Rhizoctonia</i>) | chlorothalonil fludioxonil flutolanil iprodione mancozeb mclobutanil propiconazole triflumizole |
| Algal eaf spot (<i>Cephaleurus</i>) | copper hydroxide copper sulfate |
| Anthracnose | azoxystrobin boscalid + pyraclostrobin chlorothalonil copper hydroxide copper sulfate kresoxim-methyl mancozeb maneb metconazole myclobutanil propiconazole thiophanate-methyl trifloxystrobin triticonazole |
| Bacterial blight | aluminum tris (suppression only) copper hydroxide copper sulfate phosphite (suppression only) |
| Bacterial leaf rot | streptomycin sulfate |
| Bacterial leaf spot | copper hydroxide copper sulfate |
| Bacterial stem rot | streptomycin sulfate |
| Bacterial wilt | streptomycin sulfate |
| Black root rot | fludioxonil thiophanate-methyl trifloxystrobin triflumizole |
| Black rot (<i>Sclerotinia</i>) | PCNB |

Commercial Crop Production Ornamentals

| Disease | Fungicides and Bactericides |
|---|--|
| Black spot | captan chlorothalonil copper hydroxide kresoxim-methyl mancozeb maneb propiconazole thiophanate-methyl trifloxystrobin |
| Blossom blight | see flower blight |
| Botrytis blight | azoxystrobin boscalid + pyraclostrobin captan chlorothalonil copper hydroxide copper sulfate fenhexamid fludioxonil iprodione mancozeb maneb metconazole thiophanate-methyl trifloxystrobin triflumizole |
| Brown spot | mancozeb propiconazole |
| Bulb rot | boscalid + pyraclostrobin captan iprodione PCNB thiophanate-methyl |
| Canker | chlorothalonil mancozeb thiophanate-methyl |
| Conifer blights | azoxystrobin copper sulfate mancozeb thiophanate-methyl |
| Corm rot | see bulb rot |
| Crown gall | No effective bactericides are available for crown gall management |
| Crown rot or canker (<i>Cylindrocladium</i> and other fungi) | boscalid + pyraclostrobin fludioxonil mancozeb thiophanate-methyl trifloxystrobin triflumizole |
| Crown rot (<i>Phytophthora</i>) | aluminum tris boscalid + pyraclostrobin cyazofamid dimethomorph etr Diazole phosphite |

Commercial Crop Production Ornamentals

| Disease | Fungicides and Bactericides |
|--|--|
| Damping-off (<i>Pythium</i>) | boscalid + pyraclostrobin captan cyazofamid etrifluzole mefenoxam propamocarb hydrochloride |
| Damping-off (<i>Rhizoctonia</i>) | boscalid + pyraclostrobin captan flutolanil PCNB metconazole |
| Dieback | copper hydroxide copper sulfate thiophanate-methyl |
| Downy mildew | ametoctradin + dimethomorph aluminum tris azoxystrobin boscalid + pyraclostrobin copper hydroxide copper sulfate cyazofamid dimethomorph fluopicolide kresoxim-methyl mancozeb mandipropamid phosphite trifloxystrobin |
| Fire blight | aluminum tris (suppression only) copper hydroxide copper sulfate phosphite (suppression only) |
| Flower blight | captan chlorothalonil iprodione mancozeb myclobutanil PCNB propiconazole thiophanate-methyl triadimefon |
| Flower spot | chlorothalonil |
| Fusarium wilt | triflumizole |
| Gray mold | see Botrytis blight |
| Head blight | propiconazole |
| Leaf blight | chlorothalonil copper hydroxide fludioxonil iprodione mancozeb maneb metconazole propiconazole |

Commercial Crop Production Ornamentals

| Disease | Fungicides and Bactericides |
|--|--|
| | thiophanate-methyl triadimefon |
| Leaf blister | chlorothalonil copper sulfate mancozeb |
| Leaf curl | see leaf blister |
| Leaf gall | boscalid + pyraclostrobin triadimefon |
| Leaf spot | azoxystrobin boscalid + pyraclostrobin captan chlorothalonil copper hydroxide copper sulfate fludioxonil iprodione kresoxim-methyl mancozeb maneb metconazole myclobutanil propiconazole thiophanate-methyl triadimefon trifloxystrobin triflumizole |
| Needle blight | copper sulfate |
| Needle cast | copper sulfate mancozeb |
| Needle rust | azoxystrobin myclobutanil |
| Petal blight | see flower blight |
| Petiole rot (<i>Myrothecium</i>) | fludioxonil trifloxystrobin triflumizole |
| Powdery mildew | azoxystrobin boscalid + pyraclostrobin calcium polysulfide chlorothalonil copper hydroxide copper oleate copper sulfate fenarimol kresoxim-methyl metconazole myclobutanil piperalin propiconazole sulfur thiophanate-methyl triadimefon trifloxystrobin triflumizole |

Commercial Crop Production Ornamentals

| Disease | Fungicides and Bactericides |
|--|--|
| | triforine triticonazole |
| Purple spot | mancozeb |
| Ray blight (<i>Ascochyta</i> blight) | chlorothalonil iprodione mancozeb maneb myclobutanil propiconazole thiophanate-methyl |
| Rhizome rot | see bulb rot |
| Root rot (<i>Phytophthora</i> , <i>Pythium</i>) | ametoctradin + dimethomorph (for <i>Phytophthora</i> only) aluminum tris boscalid + pyraclostrobin cyazofamid dimethomorph etridiazole fluopicolide mefenoxam phosphite propamocarb hydrochloride trifloxystrobin |
| Root rot (<i>Cylindrocladium</i> , <i>Fusarium</i> , <i>Rhizoctonia</i> , <i>Thielaviopsis</i> , etc.) | azoxystrobin fludioxonil flutolanil iprodione PCNB thiophanate-methyl trifloxystrobin triflumizole |
| Rust | azoxystrobin boscalid + pyraclostrobin calcium polysulfide captan chlorothalonil copper sulfate fenarimol flutolanil kresoxim-methyl mancozeb maneb metconazole myclobutanil propiconazole sulfur triadimefon trifloxystrobin triflumizole triforine |
| Scab | azoxystrobin boscalid + pyraclostrobin chlorothalonil copper hydroxide copper sulfate |

Commercial Crop Production Ornamentals

| Disease | Fungicides and Bactericides |
|--|--|
| | fenarimol kresoxim-methyl mancozeb metconazole myclobutanil propiconazole thiophanate-methyl trifloxystrobin triflumizole triticonazole |
| Shoot blight (<i>Phytophthora</i>) | see aerial blight caused by <i>Phytophthora</i> spp. |
| Southern blight | azoxystrobin fludioxonil flutolanil |
| Stem rot (<i>Phytophthora</i>) | aluminum-tris dimethomorph etr Diazole mefenoxam phosphite |
| Stem rot (fungal) | fludioxonil iprodione maneb PCNB thiophanate-methyl trifloxystrobin triticonazole |
| Storage rot | Iprodione |
| Thread blight | see aerial blight caused by <i>Rhizoctonia</i> spp. |
| Tip blight | myclobutanil propiconazole thiophanate-methyl triadimefon |
| Tuber rot | see bulb rot |
| Twig blight | chlorothalonil copper hydroxide copper sulfate myclobutanil thiophanate-methyl |
| Twig dieback | copper sulfate thiophanate-methyl |
| Web blight | see aerial blight caused by <i>Rhizoctonia</i> spp. |
| White rust | myclobutanil |
| Wilt (<i>Cylindrocladium</i>) | iprodione triflumizole |

Commercial Crop Production Ornamentals

Table 3. Recommended pesticides, rates and pesticide use restrictions for ornamentals.

| Common Name | FRAC Code ¹ | Trade Name(s) ¹ | REI (hr) | Comments |
|-------------------------------|------------------------|---|----------|--|
| aluminum tris (or fosetyl-al) | 33 | Aliette WDG Fosal Select | 12 | NOT compatible with copper-containing fungicides (do not apply within 7 days of each other). |
| azoxystrobin | I I | Heritage Heritage G Heritage TL | 4 | Make no more than 3 sequential applications; no more than 8 applications or 10 pounds per crop acre per year. |
| captan | M4 | Captan 50WP Captan 80WDG Captec 4L | 96 | |
| chlorothalonil | M5 | AllPro Exotherm Termil Chlorostar DF Chlorostar VI Chlorothalonil 720F Countdown LandG Daconil Ultrex Daconil Weather Stik Daconil Zn Echo 720 Turf and Ornamental Echo Ultimate Turf and Ornamental Ensign 720 Ensign 82.5% Turf and Ornamental Initiate 720 Mainsail 6.0F Mainsail WDG Manicure 6 Flowable Turf and Ornamental Manicure Ultrex Turf and Ornamental Quali-Pro Chlorothalonil 500ZN Quali-Pro Chlorothalonil DF Quali-Pro Chlorothalonil 700 SFT | 12 | |
| copper hydroxide | M1 | Badge SC Champ DP Kocide 3000 | 24 | Should not be applied in a spray solution with a pH of less than 6.5. |
| cyazofamid | 21 | Segway | 12 | For control of <i>Phytophthora</i> , <i>Pythium</i> and downy mildews (see label); no more than 2 soil applications or 4 foliar applications per crop cycle. |
| dimethomorph | 40 | Stature SC | 12 | For control of downy mildews, aerial <i>Phytophthora</i> and <i>Phytophthora</i> root, crown and stem rots; no more than 2 sequential applications; no more than 8 applications per crop (greenhouse) or 30.6 fluid ounces per acre per year (outdoors); not for landscape use. |
| etridiazole | 14 | Terrazole 35WP Terrazole L Truban 25EC | 12 | For control of <i>Pythium</i> and <i>Phytophthora</i> only. |
| fenarimol | 3 | Rubigan A.S. | 12 | For control of powdery mildew. |
| fenhexamid | 17 | Decree 50WDG | 12 | For <i>Botrytis</i> only; no more than 2 sequential applications; use no more than 6 pounds per acre per season (outdoors) or 2.2 ounces per crop |

Commercial Crop Production Ornamentals

| Common Name | FRAC Code ¹ | Trade Name(s) ¹ | REI (hr) | Comments |
|--------------------------------|------------------------|---|----------|--|
| | | | | cycle (greenhouse). |
| fludioxonil | 12 | Medallion Mozart TR | 12 | Use no more than 80 pounds per year or crop (indoor), 4 pounds per acre per year (outdoor, field-grown) or 8 pounds per acre per year (outdoor, container-grown); Mozart for use in greenhouses only. |
| fluopicolide | 43 | Adorn | 12 | For downy mildew, <i>Phytophthora</i> and <i>Pythium</i> diseases; no more than 2 sequential applications per year. See label for additional restrictions. |
| flutolanil | 7 | Contrast 70WSP ProStar 70WDG ProStar 70WP | 12 | For diseases caused by Basidiomycetes; not for use in the landscape; no more than 4 applications per year. |
| imazalil | 3 | Fungaflor TR | 24 | For use in greenhouses only. |
| iprodione | 2 | 26GT Chipco 26019 Chipco 26019 Flo Chipco 26019 N/G Iprodione Pro 2SE Iprodione SPC OHP 26 GT-O | 12 | NOT for residential use. |
| kresoxim-methyl | 11 | Cygnus | 12 | NOT for use in residential landscapes; no more than 2 sequential applications; no more than 6 applications per season (outdoors) or 8 applications or 25.6 ounces per acre per year (greenhouse). |
| mancozeb | M3 | Dithane 75DF Rainshield Fore 80WP Rainshield Penncozeb (4F, 70DF, 80WP) Protect DF | 24 | |
| mandipropamid | 40 | Micora | 4 | For both greenhouse and outdoor grown ornamentals; for control of downy mildew and <i>Phytophthora</i> diseases; no more than 2 sequential applications per year. |
| maneb | M3 | Maneb 75DF Maneb 80WP | 24 | No longer being manufactured, but supplies may be available. |
| mefenoxam | 4 | Fenox ME Mefenoxam 2AQ Subdue GR Subdue Maxx Subdue WSP | 0 | For control of <i>Pythium</i> and <i>Phytophthora</i> by soil application only; not for landscape use ; Subdue Maxx can be used in commercial and residential landscapes. |
| metconazole | 3 | Tourney | 0 | Use no more than 4 lb per acre per year; not for greenhouse use. |
| myclobutanil | 3 | Eagle 20EW Eagle 40WP Eagle WSP Hoist Myclobutanil 20EW TandO | 24 | |
| pentachloronitrobenzene (PCNB) | 14 | Glacier (10G and 4F) Parflo 4F Turfcide 10% Granular | 12 | For soil application. |

Commercial Crop Production Ornamentals

| Common Name | FRAC Code ¹ | Trade Name(s) ¹ | REI (hr) | Comments |
|---------------------------|------------------------|---|----------|--|
| phosphites, various salts | 33 | Agri-fos Alude Fosphite Fungi-Phite T and O Primera Magellan Rampart T and O Vital | 4 | |
| piperalin | 5 | Pipron | 12 | For control of powdery mildew only; for use only in commercial greenhouses or other structures with impermeable roofs. |
| propamocarb hydrochloride | 28 | Banol Proplant | 24 | For control of <i>Pythium</i> and <i>Phytophthora</i> ; not for use in landscapes. |
| propiconazole | 3 | Banner 1.1EC Banner MAXX Banner Pro Dorado Fathom 14.3MEC Fitness Honor Guard PPZ ProPensity 1.3ME Propiconazole E-Pro 14.3 MEC Propiconazole G-Pro Propiconazole EC Propiconazole 14.3 Propimax EC Propi-Star EC Savvi Strider | 24 | NOT for use in greenhouses; no more than 5.4 gallons per acre per crop per year (outdoors). |
| thiophanate-methyl | 1 | 3336 (DG, F, GC and WP) Allban (50WSB and Flo) Cavalier (50WSB and F) Fungo (50WSB and Flo) OHP 6672 (4.5L and 50W) Quali-Pro TM (4.5 and 85WDG) SysTec 1998 Tee-Off 4.5F T-Methyl E-Pro (4.5F, 50 WSB, GC and Granular) Transom (4.5F and 50WSB) T-Storm | 12 | |
| triadimefon | 3 | Bayleton 50 Turf and Ornamental Fungicide Bayleton Flo Strike 50WDG | 12 | |
| trifloxystrobin | 11 | Compass Compass O 50WDG | 12 | No more than two sequential applications (one for powdery mildew); no more than 34.5 ounces per acre per year (outdoors) or 120 ounces per acre per year (indoors). |
| triflumizole | 3 | Terraguard SC Terraguard SC/LS | 12 | SC formulation is for nursery use only. SC/LS formulation is for landscape use only. |
| triticonazole | 3 | Trinity TR | 12 | No more than two sequential applications; no more than 216 fl oz per acre. |
| ziram | M3 | Ziram 76DF | 48 | |

Commercial Crop Production Ornamentals

| Common Name | FRAC Code ¹ | Trade Name(s) ¹ | REI (hr) | Comments |
|--|------------------------|-------------------------------------|----------|--|
| ametoctradin + dimethomorph | 45, 40 | Orvego | 12 | No more than 56 fl oz per acre per crop per year for outdoor use; no more than 4 applications per crop per growing season. |
| boscalid + pyraclostrobin | 7, 11 | Pageant | 12 | No more than 7.3 pounds per acre per year. |
| chlorothalonil + propiconazole | M5, 3 | Concert | 12 | |
| chlorothalonil + thiophanate-methyl | M5, 1 | ConSyst Prominence Spectro 90 | 12 | |
| copper hydroxide + mancozeb | M1, M3 | Junction | 24 | |
| cyprodinil + fludioxonil | 9, 12 | Palladium | 12 | NOT for use on residential plantings. |
| etridiazole + thiophanate-methyl | 14, 1 | Banrot 8G Banrot 40WP | 12 | |
| fludioxonil + mefenoxam | 12, 4 | Hurricane WDG | 48 | NOT for use in landscapes or field plantings. |
| flutolanil + thiophanate-methyl | 7, 1 | SysStar WDG | 12 | NOT for use in landscapes. |
| iprodione + thiophanate-methyl | 2, 1 | 26/36 | 12 | NOT for residential use. |
| mancozeb + myclobutanil | M3, 3 | Clevis | 24 | |
| mancozeb + thiophanate-methyl | M3, 1 | Zyban | 24 | |
| propamocarb hydrochloride + fluopicolide | 28, 43 | Stellar | 12 | For control of downy mildews, <i>Phytophthora</i> and <i>Pythium</i> . |
| triadimefon + trifloxystrobin | 3, 11 | Armada 50WDG Armada 50WP | 12 | For interior and landscape use only. |

¹Mode of action groups are determined by the Fungicide Resistance Action Committee (FRAC).

²Reference to commercial or trade names is made with the understanding that no discrimination or endorsement of a particular product is implied by LSU or the LSU AgCenter.

Information in this section was last updated in October 2022 by R. Singh.