



Scouting for Key Diseases on Key Ornamental Plants

Key plants are those specific plant species or cultivars that may be infested with key diseases every year. This varies from location to location and from year to year. Specific cultivars may be more susceptible than others. Here is a list that I gathered from references listed at the end of this fact sheet plus personal observations. It is helpful to develop your own list based upon your own experience and observations.

A few key diseases include: Aster Yellows, Bacterial Leaf Spots and Blights, Black Root Rot, Botrytis Blight, Downy Mildew, Foliar Nematodes, Fungal Leaf Spots, Pythium root and crown rots, Powdery Mildew, Rusts, and Viruses.

Aster Yellows

Key bedding plants affected: Annual Vinca (*Catharanthus*), Calendula, China Aster, Chrysanthemum, Cosmos, Marigold, and Zinnia

Key herbaceous perennials affected: *Aconitum*, *Bellis*, *Campanula*, *Chrysanthemum*, *Coreopsis*, *Delphinium*, *Echinacea*, *Gaillardia*, *Monarda*, *Rudbeckia* and *Salvia*

Bacterial Leaf Spots and Blights

Key bedding plants affected: Matthiola, Florist geranium, Ranunculus, and Zinnia

Key herbaceous perennials affected: *Aconitum*, *Coreopsis*, *Delphinium*, *Geranium*, *Heuchera*, *Iris*, and *Papaver*

Black Root Rot

Key bedding plants affected: Annual vinca (*Catharanthus*), Calibrachoa (million belles), Pansy, Petunia, Salvia, Verbena, and Viola

Key herbaceous perennials affected: *Dicentra*, hardy geraniums, *Heuchera*, Creeping and Garden Phlox.

Botrytis Blight

Key bedding plants affected: Annual vinca (*Catharanthus*), Calibrachoa (million belles), Begonia, Carnation, Chrysanthemum, Cyclamen, Florist Geranium, Impatiens, Marigold, Petunia, Primrose and Zinnia

Key herbaceous perennials affected: *Arabis*, *Campanula*, *Echinacea*, *Heuchera*, *Hosta*, *Liatris*, *Myosotis*, *Primula* and *Viola*. Peonies and Asiatic lilies especially susceptible.

Downy mildew

Key bedding plants affected: Alyssum, Argyranthemum, Basil, Coleus, Impatiens, Osteospermum, Pansy, Primula, Rosemary, Salvia, Snapdragon, Viola, and Verbena

Key herbaceous perennials affected: *Agastache, Aster, Artemisia, Buddleia, Coreopsis, Delphinium, Geranium, Geum, Iberis, Lamium, Lupinus, Potentilla, Rudbeckia, (Goldsturm esp.), Veronica* and *Viola*

Foliar Nematodes

Key bedding plants affected: *Ageratum, Begonia, Basil, Chrysanthemum, Coleus, Dahlia, English daisy, Marigold, Primrose, Salvia, Snapdragon, Torenia, Verbena* and *Zinnia*

Key herbaceous perennials affected: *Anemone, Aquilegia, Baptisia, Bergenia, Chrysanthemum, Ferns, Fragaria, Hepatica, Heuchera, Hosta, Hypericum, Iris, Ligularia, Lilium, Malva, Paeonia, Papaver, Phlox, Polygonatum, Rogersia, and Tricyrtis.*

Fungal Leaf Spots

Key bedding plants affected: *Annual vinca (Catharanthus), Dianthus, Impatiens, Marigold, New Guinea impatiens, Florist Geranium, Pansy, Salvia,* and *Zinnia*

Key herbaceous perennials affected: *Aquilegia, Aster, Chrysanthemum, Clematis, Delphinium, Eupatorium, Heuchera, Hibiscus, Hypericum, Iris, Liatris, Lychnis, Monarda, Paeonia, Phlox, Rudbeckia, Veronica,* and *Viola*

Pythium root and crown rots

Key bedding plants affected: *Annual Vinca (Catharanthus), Begonia, Calibrochoa, Chrysanthemum, Dahlia, Gerbera Daisy, Impatiens, Florist geranium, New Guinea impatiens, Primrose,* and *Snapdragon*

Key herbaceous perennials affected: *Helleborus, Leucanthemum,* and *Sidalcea*

Powdery Mildew

Key bedding plants affected: *Begonia, Calibrochoa (millon belles), Dahlia, Gerbera Daisy, Petunia, Torenia, Salvia, Snapdragon, Verbena,* and *Zinnia*

Key herbaceous perennials affected: *Aquilegia, Aster, Coreopsis, Clematis, Delphinium, Helianthus, Monarda, Peony, Phlox, Pulmonaria, Rudbeckia, Salvia, Scabiosa, Solidago, Sedum, Verbena, Veronica,* and *Viola*

Rusts

Key bedding plants affected: *Chrysanthemum, Fuchsia, Florist Geranium, Salvia,* and *Snapdragon*

Key herbaceous perennials affected: *Aconitum, Adenophora, Alcea, Anemone, Aquilegia, Aster, Calamagrostis, Campanula, Clematis, Delphinium, Hemerocallis, Heuchera, Iris, Liatris, Miscanthus, Monarda, Lupinus, Panicum, Pennisetum, Solidago, Veronica,* and *Viola*

Viruses

Cucumber Mosaic Virus (CMV) *Ajuga, Aquilegia, Campanula, Delphinium, Dahlia, Lily, Petunia and Phlox.*

Hosta Virus X (HVX) Hosta, some more susceptible hosta cultivars include Gold Edger, Gold Standard, Golden Tiara, and Sum and Substance

Tomato Spotted Wilt Virus/ Impatiens necrotic spot virus

Key Bedding Plants affected: Begonia, Campanula, Cyclamen, Garden Impatiens, New Guinea impatiens, Pepper, Phlox, Primula, and Tomato

Key herbaceous perennials affected: *Centranthus, Hosta, Penstemon, Primula, and Tricytis*

Tobacco mottle virus

Key Bedding Plants affected: Calibrachoa, Gerbera Daisy, Impatiens, New Guinea impatiens, Nicotiana, Pepper, Petunia, Tomato and Torenia.

Tobacco rattle virus

Key Herbaceous perennials affected: *Anemone, Hosta, Peony, and Epimedium*

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References

Chase, A. R., M.L. Daughtrey, and R. A. Cloyd. 2018. Compendium of Bedding Plant Diseases and Pests. APS Press., St. Paul, Minnesota. 170 pp.

Gleason, M.L., M.L. Daughtrey, A. R. Chase, G.W. Moorman, and D.S. Mueller. 2009. Diseases of Herbaceous Perennials. APS Press., St. Paul, Minnesota. 281 pp.

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