



## Landscaper Frequently Asked Questions Impatiens Downy Mildew

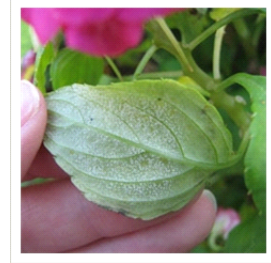
*For continued success with impatiens use good horticultural practices.*

### **Q. How can I recognize the symptoms of impatiens downy mildew?**

A range of symptoms is possible. *Impatiens walleriana* that become infected at an early stage of development are more likely to appear stunted in both height and leaf size, and produce fewer flowers.

Early Symptoms Include:

- Leaves that appear chlorotic or stippled. Some varieties will have subtle gray markings on the top of the leaf.
- Infected leaves may also turn downward from the leaf margins.
- A white, downy-like growth containing spores may be present on the underside of affected leaves (see photo). This downy-like growth can sometimes also be found on the underside of leaves that appear normal and green



Advanced Symptoms Include:

- Premature leaf and flower drop resulting in bare, leafless stems.
- Eventually these stems may become soft and the plant will collapse (somewhat similar to frost damage).

### **Q. Where has this disease been seen in the United States?**

Impatiens downy mildew was confirmed in commercial landscape beds in coastal southern California; northeast Illinois; northern Indiana; Cape Cod, Massachusetts; and Long Island and upstate New York in 2011.

### **Q. What environmental conditions favor Downy Mildew?**

Development and expression of impatiens downy mildew is highly influenced by the weather.

- Wet foliage, cool temperatures (especially at night), and moist air are ideal conditions for disease development.

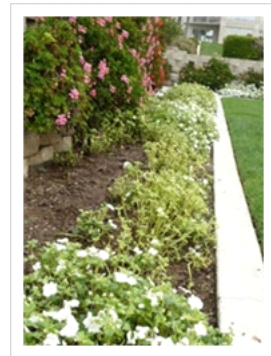
The disease was noticed late in the season in several locations when night temperatures began to drop into the 50s in early September. With a long, dry and hot summer next year, we could see no or very little disease in the U.S.

### **Q. Is the disease more of a problem in beds that are in full shade?**

Downy mildew is a water mold. As the name implies, it likes and requires moisture to sporulate and cause new infections. Plants in heavily shaded locations where the leaves stay wet for extended periods of time will generally have a higher incidence and severity of disease because moisture promotes infection and disease expression.

Disease tends to be worse in:

- Locations where leaves stay wet for extended periods of time.
- Very dense beds.
- Beds receiving overhead sprinkler irrigation, because the foliage does not dry quickly.



Plants in more open or sunnier areas with better air movement will generally have less disease because the length of time moisture remains on the leaves is reduced.

### **Q. If beds are cleaned up thoroughly now, can *Impatiens walleriana* be safely planted there again next year?**

*Impatiens walleriana* replanted into beds with a history of impatiens downy mildew may be at a higher risk of infection than *Impatiens walleriana* planted into beds with no history of the disease.

Two types of spores are produced that can initiate infection:

- Short-lived (dispersal) spores produced in the downy-like growth on the undersides of infected leaves. These spores will not overwinter.
- Resting (survival) spores produced inside infected stems and leaf petioles. These resting spores, called oospores, have the potential to be released into the soil from infected plant debris where they can survive and potentially initiate new infections on *Impatiens walleriana* planted into the same beds next season.

This is important to know because:

- Impatiens downy mildew can potentially occur in beds with no history of the disease if wind-dispersed spores blow in from other locations.

**Q. If the pathogen survives the winter in plant debris in the soil, is it safe to plant other flowering or foliage plants in affected beds next season?**

- The downy mildew infecting impatiens attacks only *Impatiens walleriana*.
- Alternative shade-loving plants including New Guinea impatiens can be safely planted in beds with a history of impatiens downy mildew. (For a list of alternative plant recommendations, [click here.](#))
- Coleus is susceptible to a downy mildew disease, but the downy mildew species that infects *Impatiens walleriana* cannot infect coleus.

**Q. What is your recommendation for a fungicide and timing of application for those beds where we might want impatiens next year?**

End of season management this fall should focus on:

- Scouting *Impatiens walleriana* beds for this disease.
- Removing infected plants and leaf debris.
- Noting which beds harbored diseased plants.
- End of season fungicide applications are not recommended.

**Q. Should our grower apply a fungicide next year as a preventative?**

- Growers are being advised on best management practices in order to continue providing the industry with a supply of healthy *Impatiens walleriana*.
- Fungicides applied by the grower will offer short-term protection, but may not provide a full season of control after plants are moved into the landscape.
- Healthy plants can become infected by both wind-dispersed or soilborne spores once planted into the landscape.

**Q. Does this disease attack both vegetative- and seed-produced *Impatiens walleriana*?**

All cultivars of vegetative- and seed-produced *Impatiens walleriana* are susceptible to downy mildew.