



What's Wrong With My Impatiens?

Impatiens Downy Mildew

What is it?

Downy mildew is a devastating fungal disease that can spread by air and by the 'splashing' of spores due to rain and overhead watering. It is prevalent across the country and can come from any number of places. Impatiens Downy mildew is an extreme disease that demands attention. This disease on bedding Impatiens is particularly thorough, systematically impacting each area of the plant from the flower to the roots until nothing remains.

Although this disease was originally identified in 1897 on wild Impatiens in Vermont, this pathogen didn't really resurface significantly until 2011, when there were outbreaks in several states. In 2012, impatiens downy mildew became widespread.



What are the symptoms?

Early symptoms include yellowing or stippling of the leaves or a white, downy-like color on the underside of the leaves as well as stunting of growth. Advanced symptoms include a grayish, fuzzy substance on leaves and stems. Leaf and flower drop will eventually result in bare, leafless stems.

Plants will stop flowering and start to wilt and lose their lower leaves and when you turn the leaf over and look at the bottom it will be dusted with what looks like white flour. The process usually starts in patches and moves quickly.



How did I get it?

Downy mildew is a water mold. The disease spreads most commonly when the foliage stays wet for extended periods of time and there are cool night temperatures and moist conditions. Therefore areas of deep shade, beds that receive overhead watering and densely planted beds are more highly susceptible to downy mildew. Bedding Impatiens will most likely contract the disease from the soil or the environment.

When will my plants get the disease/how long will my Impatiens live?

There is no timetable for when or if your impatiens might get downy mildew or for how long it would take them to die IF they do become infected.

What do I do now?

Once the disease is identified remove all of the plants and plant debris (leaves, flowers, etc.) from soil and containers. This particular downy mildew appears to be extremely durable, with evidence of the disease being able to overwinter, so the removal of plant debris is imperative to help limit future spread. It is not recommended to plant impatiens in that location for 5-7 years. Chemical treatments are not recommended as most are ineffective.

Currently, research is looking into how their spores are formed and whether their formation can be blocked. The challenge is discovering what allows this pathogen to survive in the soil, with the long-term hope of freeing Impatiens from this disease.

Prevention is the Key

At the moment, there's no cure for impatiens downy mildew. However, there are ways to protect your impatiens from this disease.

- Monitor the humidity level in your growing environment; high humidity accelerates its growth.
- Purchase healthy Impatiens where fungicides were used as a preventative measure to keep the disease controlled in the greenhouse.
- Purchase Impatiens that were grown from seed (to avoid possible inoculum from others' greenhouse crops).

What about New Guinea Impatiens?

Downy mildew only affects Impatiens walleriana. New Guinea Impatiens have proven to be highly tolerant to the disease.

What else can I plant?

There are many other beautiful flowering plants that thrive in shade and are not susceptible to downy mildew. Here are great options for replacing Impatiens in your shade gardens this summer:

New Guinea Impatiens, Sun Impatiens, Coleus, Torenia, Oxalis, Heuchera and other shade perennials, Begonias, or Fuchsias.

The real secret here is not focusing on what might not be available but what IS available. In the plants listed here alone, there are tons of colors and textures, for landscape, containers or hanging baskets. Use downy mildew as an opportunity to try a new slate of great plants for shade gardening. This can simply be an opportunity to try something different, and potentially more interesting, in your shade garden!

See great lists (with pictures) of shade options here:

<http://www.michigangardener.com/alternatives-to-impatiens/>

<http://www.hicksnurseries.com/wp-content/uploads/2014/01/Impatiens-Replacements-2014.jpg>

Future Research

At Cornell University, Cornell researcher Mark Bridgen's graduate student is looking into breeding new varieties of impatiens with the hope of finding a type resistant to downy mildew. Researchers believe that the answer may reside in nature. They believe that in order to understand the pathogen better, it's best to observe it in its natural setting, where the pathogen acts much less harmfully with wild impatiens.

Future studies will also include manipulating the spores to see how they react to different fungicides. Ideally, researchers would like to find a fungicide that would block the spore production, which would offer a strategy that gardeners would be able to readily apply.

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