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Downy Mildew of Impatiens (rev. 2-22-17)

What is the latest update on impatiens downy mildew?

It is still a problem and will likely continue to plague gardeners using *Impatiens walleriana* and other hybrids with walleriana in their breeding. Our production is still limited and will likely decrease over the next few years.

What is impatiens downy mildew and what plants are affected?

The scientific name is *Plasmopara obducens*. It is a water mold like *Pythium* and *Phtophthora* and it spreads quickly in wet, moist conditions. *Impatiens downy mildew* affects all varieties of *Impatiens walleriana* and any hybrids with walleriana in their breeding. *Impatiens walleriana* are what we commonly call regular impatiens or bedding impatiens. Other kinds we grow affected are double impatiens. There is also evidence that *Impatiens balsamina* is affected but we don't grow these.

How long has it been a problem?

Downy mildew has been a problem overseas for years but confirmed outbreaks here in the US have been isolated. Then, in the summer of 2011, several states from the northeast, mid-west, and southern coastal regions had confirmed cases in commercial situations as well as in the landscape. The reports persisted into 2012 with southern Florida being particularly affected. *Impatiens downy mildew* reports have been confirmed in most states, including Tennessee. 2013 saw outbreaks similar to 2011-2012 but the last few years the outbreaks have been less frequent. This could be from increased awareness and/or fewer impatiens being produced. However, 2017 has already had several outbreaks reported in the southern states.

What does it look like?

Impatiens downy mildew is aggressive and causes plants to defoliate rapidly. Young plants and new growth usually show symptoms first. Leaves begin to turn yellow or speckled. You may also see slight gray lines on the tops of the leaves and see the edges of the leaves curling downward. Some of these look like nutritional issues at first so it can be difficult to spot. As the disease worsens, white downy growth appears on the undersides of the leaves. The leaves and flowers begin to drop quickly at this point. Plants may also look stunted. If the disease continues to progress, the plant will eventually die.

How does the disease spread and how do I control it?

You can get infected plants and the disease can spread into healthy plants before any symptoms are noticed. The spores spread through water so it can spread quickly. Avoid over-crowding plants as air circulation is vital to help control the spread. Spores also travel by the wind so your plants can get infected from diseased plants miles away. It spreads rapidly if the weather conditions are right -.high humidity and cool nights are ideal conditions. If you had problems last year, you may have them again as the spores can over-winter in the greenhouse. There is limited evidence of the disease over wintering in the landscape in northern states, although it is still a concern. It is now thought that the pathogen survives on living plants in the warmer states through the winter and then moves northward during the following growing season infecting healthy plants along the way. The disease is not supposed to be seed born. Proper sanitation is a must. If you find infected plants, remove the plant(s) and all the fallen debris immediately. Dispose in a sealed bag; don't compost it. The key is prevention but that can be difficult if the weather conditions are right for development and the spread of the disease. Chemical treatments can be expensive and time consuming and don't cure the disease. Commercial growers/landscapers can apply fungicides to protect against the disease but plants are only protected for a short while after they leave the grower. It will then be up to the landscapers and/or homeowners to keep up the preventative regimen. As of now, there are no real effective fungicides on the market for homeowners to use. If we have a cool, wet spring, the potential for problems for gardeners is high.

What do we do now?

What to do next is up for debate within the industry. We, at Mary's, have decided to cut our bedding impatiens and double impatiens production considerably, offering only the most popular colors. We are suggesting customers use the following alternatives:

- 1) Sunpatiens® and New Guinea impatiens have shown a good resistance to downy mildew and will perform well in the shaded settings favored by many bedding impatiens. These cost more than bedding impatiens but 1 plant will quickly fill out and can be equal to 3-4 impatiens.
- 2) Begonias they are unaffected by this mildew and are adaptable to various sun and shade situations.

We encourage our customers to plant these alternatives (or others) as we want you to be happy with your gardens and containers. Other alternatives for part shade to shaded sites include **coleus, caladiums, lobelia and torenia.** Other plants to consider for partial sun areas are petunias, marigolds, and salvia. The weather may not be conducive to *impatiens downy mildew* this year but we want our customers to be informed so they can decide how to proceed. Guidelines for Growers Click Here