

Downy Mildew On Impatiens

Rick Yates- Griffin Greenhouse and Nursery Supplies, Inc Supplies- 4/02/04

National alerts concerning a potential outbreak of downy mildew on impatiens have proved to be right on the mark. In the past few weeks cases of downy mildew have been reported by growers in New York, Pennsylvania and Virginia. This disease deserves the attention it has been given because of its potential to spread rapidly and cause significant crop losses. This particular strain of downy mildew (*Plasmopara obducens*) is believed to affect only bedding plant impatiens, New Guinea impatiens, vegetatively propagated impatiens and garden balsam.¹ It is not yet known if all of these hosts are equally susceptible so growers are encouraged to scout them all for possible infections.

Dr. Gary Moorman, Penn State University, recently described the progression of symptoms this way: "Symptoms are rather easy to ignore at first: yellowing and mottling of the foliage; downward curling of the leaves; distortion of the leaves. But then quickly escalate: flower buds may fail to form; stunted plants. The sign of the pathogen is the light gray to slightly bluish gray, fluffy growth on the undersides of affected leaves."²



Suspicious plants should be examined by a plant diagnostic lab for a positive identification. Infected plants should be removed from the site in sealed plastic bags. Compost piles run the risk of providing spores for re-infection. Burn infected plants or dispose of them in a landfill.

Experts agree that downy mildew infections can "explode" under cool damp conditions. A film of water on the plant's surfaces for more than 6 hours allows for

germination and infection by downy mildew.³ Good cultural practices should be in place, including irrigation cycles timed to insure leaf surfaces dry as quickly as possible. Manage relative humidity to minimize condensation on plant surfaces.



¹ Hausbeck, Mary- www.plantpathology.msu.edu/labs/hausbeck/hausbeckDownyMildew.htm

² Moorman, Gary- March 30, 2004 Capital Region Greenhouse Newsletter

³ Hausbeck, Mary- www.plantpathology.msu.edu/labs/hausbeck/hausbeckDownyMildew.htm

Photos by Rick Yates

Dr. Mary Hausbeck, Michigan State University, has suggested a very aggressive fungicide program that her experience indicates is needed to control outbreaks of downy mildew. This program can be viewed in its entirety at:

www.plantpathology.msu.edu/labs/hausbeck/hausbeckDownyMildew.htm . A summary of the program with some comments and suggestions follows:

One soil drench application of Subdue Maxx should be made to begin the program.

Weekly foliar sprays could include the following:

Spray 1: Mancozeb (example: Protect)

Spray 2: Stature*

Spray 3: Mancozeb

Spray 4: Aliette** and Mancozeb

Spray 5: Mancozeb

Spray 6: Strobiluron (examples: Compass or Heritage) and Mancozeb

Spray 7: Repeat the program beginning with Spray 1

* The original program suggests Stature DM and mancozeb week 2. Stature DM is not yet available in our market place but Stature is. Stature is a combination of the active ingredient from Stature DM and a mancozeb. Therefore using Stature alone accomplishes what the program intends. Stature DM should be available later in 2004.

** Alude utilizes the same mode of action as Aliette and was highly rated for its activity against downy mildew by Ann Chase, Chase Research gardens at a presentation given at the 2004 SAF Pest Conference, March 2004. Alude could be used in place of Aliette.

Read and heed the entire pesticide label. Not all products mentioned are registered for use in all states. Fungicides other than those listed may be effective as well.