

# Control of Impatiens Downy Mildew in a Landscape

## Downy Mildew Is Forcing Growers and Gardeners to Change

by Marge Daughtrey  
LIHREC Cornell University

More and more questions are pouring in from growers, landscapers and retail garden center operators asking for a plant pathologist's crystal ball prognostication relative to impatiens downy mildew. The green industry here in New York has been asking tough questions for months already, because the dreadful effects of the disease in the landscape were evident back in early June.

At this point we are hearing that the Big Box stores are ordering impatiens the same as usual, essentially forcing growers to produce them even if they are scared to do so. They are banking on the public not being aware of the disease, or not being afraid of it if they are. They are confident that there will be customer demand for impatiens, since gardeners are so addicted to the historical dependability of this bedding plant.

Growers' smaller retail customers probably haven't formulated their buying plans for next year yet, but growers need to place their seed and cutting orders soon.

Landscapers are in many cases not planning to utilize impatiens next year. Here on Long Island, some of the landscape jobs are so BIG that having to replace failed impatiens is an unthinkably huge expense.

The growers who don't service big box stores are trying to figure out 1) whether there will be NY state quarantine actions leading to contaminated crop disposal as there have been this summer 2) whether garden centers will want to stock impatiens and 3) whether the public will want to buy impatiens again in spite of widespread disease this year.

Crop choice decisions have to be made now without knowing whether the impatiens downy mildew will be spread via the industry next year—or how weather factors may affect the return of the disease in beds where it overwintered—or how rainy and stormy it will be next year, fostering disease development and spread.

Growers tell me they are growing 20% fewer, 50% fewer, or NO impatiens next year, depending on their strategy. It's a gamble; there is no way to help them make this decision through the application of scientific information, other than to make sure that they don't dismiss the importance of this problem.

Growing New Guineas is safe from these downy mildew challenges, but growers would certainly prefer a seed-grown option that would allow lower cost to the consumer. Begonias also do well in shade, but there are groushings about the color range not being as good as that of impatiens. We have been growing a garden monoculture; we should have known better. My main message is to encourage the industry to help the public understand how to be successful with New Guineas or other plant genera: this will be hard for gardeners, though, because they are SO addicted to impatiens!

## Longterm Control in a Landscape

Dr. Aaron Palmateer (TREC - Homestead, University of Florida) performed a very important trial last winter in south Florida. He evaluated several rotations of very effective downy mildew fungicides during the "production" phase of impatiens culture. He then evaluated the effect of treating the landscape ground beds before planting with Subdue granules.

Plants were grown and treated for four weeks with one of the rotations (weekly) shown below. They were then planted into the landscape with some in ground treated with Subdue granules (30 oz/1000

sq ft). There were no additional fungicide treatments made.

### Rotation 1

Adorn and Subdue MAXX (SMAXX)  
Dithane  
Micora  
Experimental (Exp) and SMAXX

### Rotation 2

SMAXX and Aliette  
Dithane  
Exp.  
Exp.

### Rotation 3

Adorn and SMAXX  
Dithane  
Heritage and Capsil  
Micora

### Rotation 4

Micora  
Micora  
Heritage and acibenzolar  
Micora

The graph at the bottom shows the final disease data (% infection on May 9). I did not show the data from the untreated plants as they were 100% infected throughout the trial.

The most effective rotation was 1 and 3, although if the impatiens were planted in beds treated with SMAXX G, the rotation was not important. In every case, the presence of SMAXX G kept plants free or almost free of downy mildew for 2 months.

This is great news for landscapers who wish to grow impatiens. They can improve the appearance of their planting for up to 2 months after the plants leave the production facility. What's more, the benefit will be seen with a variety of rotational schemes that the producer may employ.

