


# IMPATIENS

AGRONOMIC PROGRAM

 **Ornamentals**

**syngenta**<sup>®</sup>



One of the most popular bedding plants, impatiens are susceptible to various pathogens and insects during greenhouse production. Preventing diseases and insect populations from growing is crucial for a profitable season. A strong rotation management program and thorough cultural practices are the keys to producing impatiens successfully.

## Impatiens Downy Mildew

The most common disease to infect impatiens walleriana is downy mildew. This pathogen can be mistaken for other issues, including foliar spray injury, nutritional imbalance, chilling or even spider mite infestations. Symptoms can be delayed, or masked by high fertility levels, so it is imperative to monitor crops closely. Leaf discoloration or spotting, often within the veins, are the most common initial symptoms, as well as:

- Pale foliage with yellow, tan or red blotchy areas
- Distorted, wilting or downward curling of the leaves
- White or light gray/purple fuzz on the undersides of leaves
- Small emerging leaves
- Flower buds fail to form
- Stunting of plant growth/malformation of leaves and flower buds

## Be Ready for Botrytis

In addition to downy mildew, impatiens walleriana and New Guinea impatiens can be at risk of Botrytis during production. Thriving in cool, humid environments, this pathogen can spread quickly, so it is important to maintain good air circulation and avoid extended periods of wetness on plants. Propagation and post-harvest environments, such as coolers and shipping boxes, often create conditions that foster Botrytis so preventive action is necessary.

## Getting Ahead of Thrips

Thrips are not only tough insects to control because of their short lifecycles and ability to hide in plants, but they can also be a vector of impatiens necrotic spot virus. If thrips are visible in your crops, it may be too late to prevent further damage. Getting ahead of their development with preventive insecticide applications is recommended to stop feeding and help keep crops clean.

## A Systemic Approach

Implementing a rotation program that uses a “systemic sandwich” approach is recommended for impatiens. With this approach, systemic fungicides are applied as a drench at transplant or at the beginning of production and again prior to shipping. Other fungicides with translaminar activity should be applied as sprays in between. The use of systemic products provides extended protection through shipping. The sprays applied between the drenches are part of a resistance management strategy to take the pressure off the control provided by the drench.



## Impatiens Agronomic Program

The following program can be used for impatiens and other crops susceptible to downy mildew. It features products with different modes of action to prevent resistance and preserve valuable chemistries, providing a framework for protecting the crop from the most commonly encountered problems.

Week	Application	FRAC/ IRAC	4-Inch Pot	6-Inch Pot	10-Inch Pot or Larger	Target Insects/ Diseases
1	Drench	4 1	Subdue Maxx® fungicide 1 fl. oz. + Thiophanate-methyl 16 oz.	Subdue Maxx 1 fl. oz. + Thiophanate-methyl 16 oz.	Subdue Maxx 1 fl. oz. + Thiophanate-methyl 16 oz.	<i>Pythium</i> , <i>Phytophthora</i> , Downy mildew, <i>Rhizoctonia</i>
2	Spray	7+11 28 6	Mural® fungicide 4-7 oz. + Mainspring® GNL insecticide 4-8 fl. oz.	Mural 4-7 oz. + Mainspring GNL 4-8 fl. oz.	Mural 4-7 oz. + Avid® 0.15 EC insecticide 8 fl. oz.	Downy mildew, Leaf spots, Botrytis Thrips, Aphids, Whiteflies
3	Spray (Optional)	40 M	Micora® fungicide 4-8 oz. + Protect™ DF fungicide 16 oz.	Micora 4-8 oz. + Protect DF 16 oz.	Micora 4-8 oz. + Protect DF 16 oz.	Downy mildew, Leaf spots
4	Spray	7+11 28	Mural 4-7 oz. + Mainspring GNL 4-8 fl. oz.	Mural 4-7 oz. + Mainspring GNL 4-8 fl. oz.	Mainspring GNL 8 fl. oz. (Drench)	Downy mildew, Leaf spots, Botrytis Thrips, Aphids, Whiteflies
5	Spray	49 40	Segovis® fungicide 1-2 fl. oz. (Drench)	Micora 4-8 oz.	Micora 4-8 oz.	Downy mildew
6	Spray (Optional)	7+11 6	Mural 7 oz. + Avid 0.15 EC 8 fl. oz.	Mural 4-7 oz. + Avid 0.15 EC 8 fl. oz.		Botrytis, Downy and Powdery mildews Thrips, Aphids, Whiteflies
7	Spray (Optional)	40 7+11 6		Micora 4-8 oz.	Mural 7 oz. + Avid 0.15 EC 8 fl. oz.	Downy and Powdery mildews, Botrytis Mites, Thrips, Aphids, Whiteflies
8	Drench	49		Segovis 1-2 fl. oz.		Downy mildew
9	Spray (Optional)	7+11 6 40		Mural 7 oz. + Avid 0.15 EC 8 fl. oz.	Micora 4-8 oz.	Botrytis, Leaf spots, Downy mildew Thrips
9/10	Drench	49			Segovis 1-2 fl. oz.	Downy mildew
11/12	Spray (Optional)	7+11 6 or 5			Mural 7 oz. + Avid 0.15 EC 8 fl. oz. <b>OR</b> Conserve® insecticide 6 fl. oz.	Botrytis Thrips

## Cultivating Impatiens

Recent innovations in plant protection products and genetics provide the tools needed to successfully produce impatiens in the greenhouse and grow them in the landscape. Segovis fungicide in FRAC group 49 offers a unique mode of action to diversify rotation programs and protect impatiens for up to six weeks.



**Untreated impatiens with downy mildew**



**Segovis 1.2 fl. oz. (Drench)**

Source: Syngenta, 2018

Imara® XDR impatiens from Syngenta Flowers have a high degree of resistance to downy mildew, confirmed in independent trials in North America and Europe.<sup>1</sup> However, they are not immune to the disease, so a reduced number of plant protection applications are still recommended as part of an overall resistance management strategy. A drench with Segovis one to two weeks prior to shipping can help ensure season-long protection and strong performance in the garden. Impatiens continue to be fundamental plants for home gardens and commercial landscapes. Despite their susceptibility to downy mildew and other diseases and insects, successful production is possible when plant protection products are rotated appropriately and cultural practices are maintained.



Learn more about Syngenta agronomic programs at  
**[GreenCastOnline.com/Solutions](https://GreenCastOnline.com/Solutions)**

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<sup>1</sup>Confirmed in independent trials in 2017 and 2018 at Cornell University's Long Island Horticultural Research & Extension Center. All photos are either the property of Syngenta or are used with permission.

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