

GROWS STRONGER, SHINES LONGER

IMPATIENS WALLERIANA... ...GROW WITH EASE WITHOUT DISEASE! Beacon® Impatiens has high resistance **Grow Impatiens successfully** to the cause of Impatiens downy mildew, without preventative Impatiens downy mildew fungicide applications. so it stays healthy and in color. For growers and landscapers, there Home gardeners can rely on will be no costly middle-of-the-season Beacon Impatiens for season-long, healthy replacements with Beacon Impatiens. performance and fast fill in gardens.

BEACON CARES

beacon noun

bea·con | /'bēkən a source of light and inspiration

Beacon Impatiens offers high resistance to the widely prevalent populations of *Plasmopara destructor*, the cause of Impatiens downy mildew, offering the opportunity to bring back into production a well-known, in-demand, easy-to-grow and versatile product for gardens and landscapes.

Your Beacon purchase also shines a light on a lesser-known charity.

In the spirit of bringing light and inspiration to gardens everywhere, PanAmerican Seed* donates a percentage of its global Beacon Impatiens sales to less-widely known charitable organizations each year.



A COLORFUL SELECTION



LIGHTHOUSE MIXES



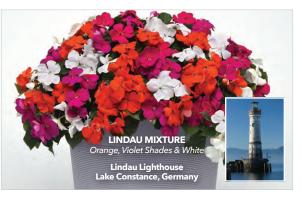




Named after well-known lighthouses in locations where Impatiens downy mildew has been a significant problem.











TRIAL RESULTS

CULTURE PRACTICES FOR GROWING BEACON IMPATIENS

In our extensive trials process, young Beacon Impatiens plants were challenged with aerial inoculation of *Plasmopara destructor* sporangia under high disease pressure in environmentally controlled conditions.

Resistance screens were conducted in Venhuizen, Netherlands and Elburn, Illinois greenhouses and in the Ball Helix laboratory in West Chicago, Illinois. All hybrids were screened a minimum of 16 times.

The results showed a high correlation between the greenhouse/lab screens and field screens. Without any use of chemicals, Beacon Impatiens showed high resistance to Impatiens downy mildew in all of these trials.

GREENHOUSE DEMONSTRATIONS

4 weeks after inoculation Beacon® is thriving, Venhuizen, NL, Week 9, 2018



Super Elfin® XP Salmon vs. Beacon® Coral

CONTAINER DEMONSTRATIONS

9 weeks after transplant Beacon® is thriving, Venhuizen, NL, Week 35, 2018



Super Elfin® XP Violet (Top) vs. Beacon® Violet Shades



Beacon® Orange (Top) vs. Super Elfin® Bright Orange

LANDSCAPE/FIELD DEMONSTRATIONS NATURAL INFECTION

7 weeks after transplant Beacon® is thriving, Elburn, IL, Week 32, 2018



Super Elfin® Bright Orange

vs. Beacon® Orange

Super Elfin® XP White vs. Beacon® White

11 weeks after transplant Beacon® is thriving, Venhuizen, NL, Week 36, 2018





Super Elfin® XP White vs. Beacon® White



Super Elfin® XP Salmon vs. Beacon® Coral

In both field trials, no Impatiens downy mildew preventative fungicides were ever applied to the plant material.

IMPATIENS

Impatiens walleriana



Beacon® Series F₁

Beacon is easy to include in your current production. Below are the general greenhouse guidelines to grow Impatiens without the risk of disease.

Plug crop time: 4 to 5 weeks Transplant to finish: 3 to 4 weeks

PLUG CULTURE

Beacon Impatiens is offered in coated seed form. Sow 1 seed per cell in a recommended 288 plug size. Germination takes 3-6 days at 68-77°F (20-25°C); do not cover the seed. Light benefits germination. Maintain the media pH at 6.0-6.2 and EC of 0.5-0.75 mmhos/cm during plug production. Keep moisture high at Level 4-5.

During **Stage 2**, provide moisture levels at 2-4 with temperatures at 64-73°F (18-23°C). Set light at 450-700 f.c. (4,800-7,500 Lux). Apply fertilizer less than 100 ppm N, less than 0.7 EC. (Note that White is slightly slower in Stages 1 and 2 than other colors.) Temperatures drop to 65-68°F (18-20°C) during **Stage 3**, with light and fertilizer regimens maintained the same as Stage 2. Set moisture at Level 2-3.

In **Stage 4**, keep moisture at Level 2-3 and lower temperatures again to 62-65°F (17-18°C). Light and fertilizer is the same as Stage 2 and 3.

PGR

Impatiens will respond to daminozide, paclobutrazol and uniconazol. Monitoring of water and fertilization can help with controlling plant growth and vigor.

GROWING ON TO FINISH

Temperatures for finishing Beacon Impatiens: **Day:** 70-75°F (21-24°C) **Night:** 62-68°F (17-20°C) The target media pH should be 6.2-6.5, with an EC of 0.75-1.0 mmhos/cm. Apply a fertilizer less than 100 ppm N, less than 0.7 EC. Beacon Impatiens are Day Neutral.

PREVENTATIVE CHEMICALS

Beacon exhibits high genetic resistance to Impatiens downy mildew without the use of chemicals. Beacon can be grown successfully without preventative IDM fungicide applications. Beacon is not immune to IDM; there are scenarios where preventive IDM fungicides may be recommended for Beacon, such as:

1) Receiving plugs or plants from a region where Impatiens are currently growing in the landscape and susceptible varieties are being grown at the recipient location.

2) Plugs or plants are being produced where Impatiens are currently growing in the landscape (which could expose greenhouse or nursery-grown plants to high levels of natural inoculum), and then shipping to other regions.

If IDM prevention is part of an overall spray program for susceptible varieties, Beacon's performance will not be affected if they are also treated.

Proper Impatiens production management practices are important for success. This includes water, fertilization and growth regulation best practices. In addition, regular scouting and environmental and cultural controls are recommended. If IDM, or any other diseases, are detected, take action to mitigate the spread and severity.

CROP SCHEDULING

CONTAINER SIZE	PLUGS/POT	CROP TIME	SEASON
Cell Pack	1 ррр	3-4 weeks	Spring
4"/4.5"/ Quart /10 cm	1 ррр	4-5 weeks	Spring
10" Pot or HB/ 3 Gallon/25 cm	3-5 ppp	8-10 weeks	Spring

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