

BRING BACK IMPATIENS WALLERIANA...

Beacon[®] Impatiens has high resistance to Impatiens downy mildew, so it stays healthy and in color

...WITHOUT THE RISK OF DISEASE!

Grow Impatiens successfully without preventative Impatiens downy mildew fungicide applications

For growers and landscapers, there will be no costly middle-of-the-season replacements with Beacon Impatiens

Home gardeners can rely on Beacon Impatiens for season-long performance and fast fill in gardens

BEACON CARES

beacon noun

bea·con | /ˈbēkən a source of light and inspiration

Beacon Impatiens offers high resistance to the currently known and widely prevalent populations of Plasmopara obducens, which cause 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.



Canadian Pulmonary Fibrosis Foundation

Longfibrose

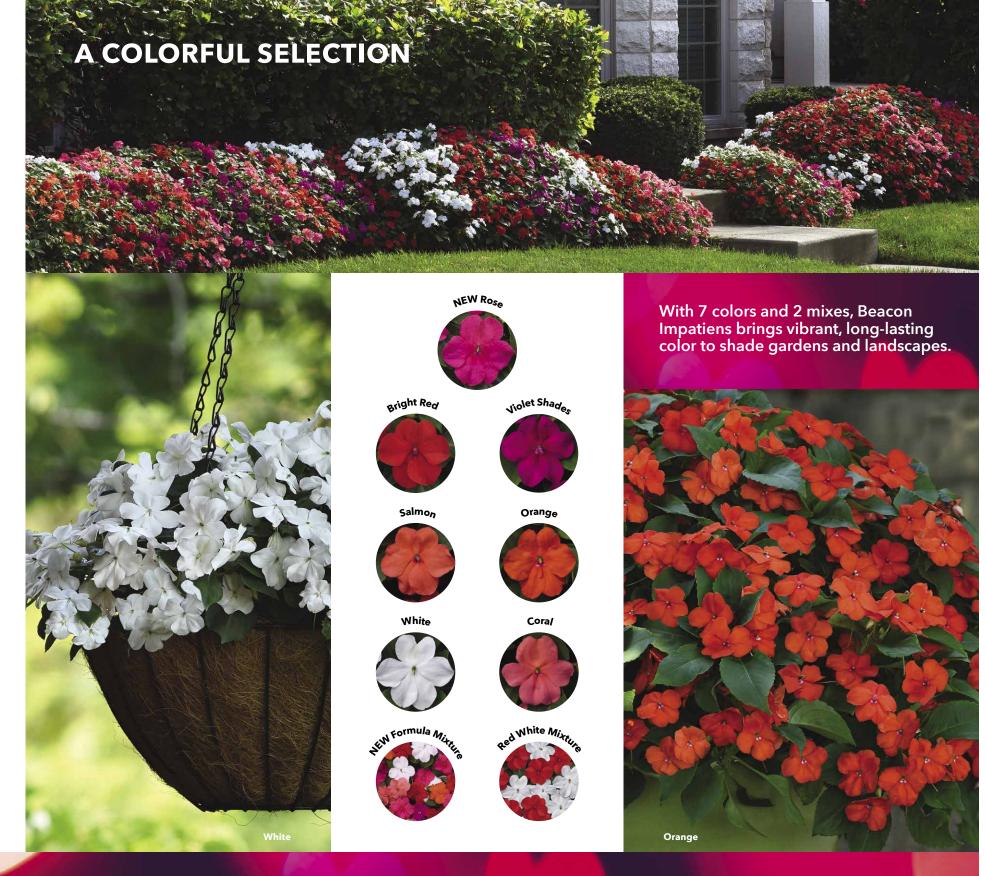
And, in the spirit of bringing light - and happiness! - to gardens everywhere,

PanAmerican Seed will donate a portion of the 2021 global seed sales of Beacon Impatiens to the Canadian **Pulmonary Fibrosis** Foundation and the **Dutch Association of Pulmonary Fibrosis**

The goal of Beacon has been to highlight lesser-known charities that do research eventually benefiting all sufferers of a particular disease.

Patients, Pendersfonds.

Pulmonary Fibrosis is a disease that scars and stiffens the lungs, making it increasingly difficult to breathe and accomplish daily tasks. These two organizations work to support people living with the disease, as well as provide education, information, advocacy and support to ensure access to quality health care. The organizations also invest in research to offer the hope of new and improved treatments and an eventual cure.



TRIAL RESULTS

CULTURE PRACTICES FOR GROWING BEACON IMPATIENS

In our extensive trials process, young Beacon Impatiens plants were challenged with aerial inoculation of *Plasmopara obducens* 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

vs. Beacon® Orange

Super Elfin® Bright Orange

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



Super Elfin® XP White

Beacon® White

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





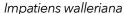
Super Elfin® XP White vs. Beacon® White



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 •••



PRO LANDSCAPE PERFORMER

Beacon® Series F₁

Beacon is easy to include in your current production, as it offers similar plant structure, flowering time, flower size and crop culture to Super Elfin® Impatiens. Below are the general greenhouse guidelines to bring Impatiens back 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. It germinates at 68-77°F (20-25°C) and takes 3-5 days; do not cover the seed. Light is optional using 450-700 f.c. Maintain the media pH at 6.0-6.2 and EC of 0.75-1.0 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. Temperatures drop to 68-70°F (20-21°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 uniconazole. Monitoring of water and fertilization can help with controlling plant growth and vigor.

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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:

- 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	1 ррр	4-5 weeks	Spring
10" Pot or HB/ 3 Gallon	3-5 ppp	8-10 weeks	Spring

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