

PanAmerican Seed.  


# Impatiens Beacon™

## Downy Mildew Highly Resistant



# What is Impatiens Downy Mildew (IDM)?

A disease caused by an Impatiens host-specific water mold, *Plasmopara destructor*.



# The Disease Cycle of IDM

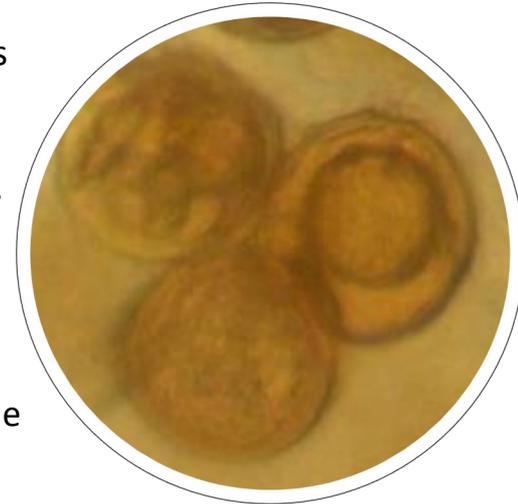


Under high humidity, aerial sporangia release from structures on the underside of the leaf and can be dispersed long distances by wind or short distances by splashing water.

Cool temperatures (15°C) and high humidity >85%, especially at night, are ideal for rapid disease development.

Moist air, rainy weather or irrigation practices that extend the amount of time moisture remains on the leaves also encourage the development and expression of downy mildew.

Oospores that form inside infected tissues have the potential to overwinter in the ground and re-infect impatiens sown or replanted into the bed the following year.



Survival oospores (soil)



Airborne sporangia

# International Seed Federation (ISF) Definition of Terms

- Susceptibility is the inability of a plant variety to restrict the growth and/or development of a specified pest.
- Resistance references living organisms. Is the ability of a plant variety to restrict the growth and/or development of a specified pest and/or the damage it causes when compared to susceptible plant varieties under similar environmental condition and pest pressure. Two levels of resistance are defined – see next slide.
  - High Resistance
  - Intermediate Resistance
- Immunity is when a plant is not subject to attack or infection by a specified pest.
  - IE: Zinnias are immune to IDM.

Tolerance is not recognized by ISF. This references abiotic stressors such as wind and sun.

PanAmerican Seed's Beacon™ Impatiens exhibit high resistance to the currently known and widely prevalent populations of *Plasmopara destructor*, the cause of Impatiens downy mildew.

## High Resistance is not Immunity

Per the definition of High Resistance:

- Plant varieties *may exhibit some symptoms or damage* under heavy disease pressure.

This means:

- Possible to see some leaf discoloration, there may be some limited sporulation under high disease pressure.
- Plants may abscise the affected leaves, but the plant will continue to live and thrive.



Beacon™ White

# What's the Difference?

## Susceptibility, High Resistance, Immunity

Susceptible to IDM: standard  
*Impatiens walleriana* (IE: Super  
Elfin, Xtreme, Lollipop)



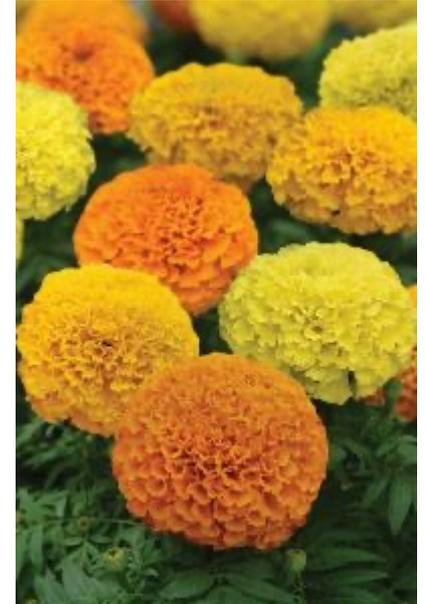
SE XP White:  
Venhuizen Field Trial Wk 36, 2018

High Resistance to IDM:  
Beacon



Beacon Orange, White, Bright Red:  
Elburn Wk 38, 2019

Immunity to IDM:  
Marigold



# What's the Difference?

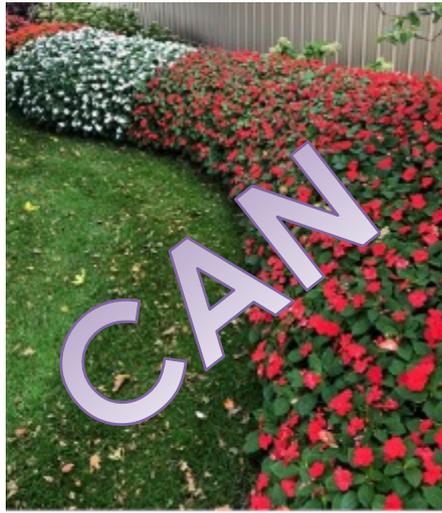
## Which one can get the disease?

Susceptible to IDM: standard  
*Impatiens walleriana* (IE: Super  
Elfin, Xtreme, Lollipop)



SE XP White:  
Venhuizen Field Trial Wk 36, 2018

High Resistance to IDM:  
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PanAmerican Seed®

**Impatiens Beacon™**

***Field Demonstrations***

***Natural Infection***



## 11 Weeks After Transplant, Beacon™ Exp. is Thriving



Super Elfin® XP White



Beacon™ White

Venhuizen, NL, Week 36, 2018

## 11 Weeks After Transplant, Beacon™ is Thriving



Beacon™ Coral vs. Super Elfin® XP Salmon

Venhuizen, NL, Week 36, 2018

# Field Trials: 7 Weeks after Transplant Beacon™ is Thriving, Super Elfin® XP is Showing First DM Symptoms

Natural Infection

Elburn, IL Week 30, 2018



Super Elfin® XP Violet



Beacon™ Violet Shades



PanAmerican Seed.

# Field Trial: 2 Weeks Later, Beacon™ is Thriving

Natural Infection

Elburn, IL Week 32, 2018



Super Elfin® XP Violet

Beacon™ Violet Shades

PanAmericanSeed®

# Impatiens Beacon™

Downy Mildew Highly Resistant  
Uniform series for any garden



# Impatiens Beacon® Series F1

BEACON®  
IMPATIENS

GROWS STRONGER, SHINES LONGER

## High resistance to Impatiens downy mildew!

Bring Impatiens walleriana back into production without the risk of disease! Beacon impatiens offers high resistance to the currently known and widely prevalent populations of *Plasmopara destructor*, which cause Impatiens downy mildew (IDM).

With a plant structure, flowering time, flower size and crop culture that is similar to Super Elfin® and DeZire™, Beacon impatiens is easy to incorporate into production planning.

### The power of Beacon® proved during Summer Trials

During our yearly summer trials, we experienced the power of Beacon ourselves. As downy-mildew pressure was high this year, the power of Impatiens Beacon became clear right away. All you want to know, in one picture:



**Height:** 35 to 45 cm

**Spread:** 30 to 35 cm

**Plug crop time:** 4 to 5 weeks

**Transplant to finish:** 3 to 4 weeks

**Seed supplied as:** Coated with 90% Min. Germ. Standard

# Impatiens Beacon® - Introduction Beacon mixes

BEACON  
IMPATIENS

GROWS STRONGER, SHINES LONGER

We're introducing three mixes that have been trialed and approved in locations where Impatiens downy mildew has been a significant problem. The new Beacon mixes proved to be high resistant, grow well together and look vibrant in shade! All three mixes are suitable for packs, pots, hanging baskets and in-ground beds.



## Lindau Mixture

Named for the Lindau Lighthouse of Lake Constance, Germany. Includes Orange, White and Violet Shades.



## Portland Mixture

Takes its name from Portland Bill in Dorset, England. Includes Rose, Violet Shades and White.



## Sanibel Mixture

Inspired by Sanibel Lighthouse on Sanibel Island in Florida, USA. Includes Bright Red, Orange and Violet Shades.

# Impatiens Beacon® Series F1

BEACON®  
IMPATIENS

GROWS STRONGER, SHINES LONGER



Bright Red



Coral



Orange



Rose



Salmon



Violet Shades



White



Formula Mixture



Red White Mixture

# Beacon Production Timing Details

- Average Times to 1<sup>st</sup> Flower and to 50% Flower (Retail Ready): comparable to like colors in SE series.
- Flower Timing Window: 5-7 Days.
- Flower Timing from Earliest:  
White, Salmon, Red, Coral, Violet Shades, Rose and Orange.

# Beacon Production Best Practices

- Beacon Impatiens exhibit high genetic resistance to *P. destructor*, not to other Impatiens diseases.
  - Essential production practices include scouting, managing water, fertilization, relative humidity, appropriate PGRs and control of other diseases.
  - Understand your customers and your customer's customers comfort with possible limited sporulation.
- IDM Preventative Fungicides
  - Beacon can be grown successfully without preventative IDM fungicide applications.
    - Growers have been successful doing so.
  - Beacon is not immune to IDM, there are scenarios where preventive IDM fungicides may be recommended for Beacon:
    - 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.
    - Receiving plugs or plants from a region where Impatiens are currently growing in the landscape which could expose greenhouse or nursery grown plants to high levels of natural inoculum.
    - Production includes susceptible varieties.
- 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.

# This Just In.....

UK publication **Which? Gardening**  
June 2020

Tested Impatiens and Downy Mildew  
*'find the best disease-resistant varieties'*.

## Truly independent testing

Tested for:

- Flowering
- Vigour
- Health

Included:

- Beacon
- Imara XDR
- Accent (as the control)
- Divine New Guinea
- SunPatiens

## *Best Buy*

Untouched by downy mildew

### **'Beacon'**

If you want to get back to planting busy Lizzies this summer, then look for 'Beacon'. These plants filled out quickly and flowered consistently from June until the weather began to grow colder in October. They flowered well in the shade and only suffered a little petal bleaching in the sunny border, mainly on the salmon-coloured plants. When the traditional *I. walleriana* succumbed to downy mildew in September, the 'Beacon' impatiens remained completely untouched.

Price: £10 for 10 plus plants

