GrowerFacts

Impatiens Enlighten

(*Impatiens walleriana*)

Germination

- Time of radicle emergence (3 to 5 days)
- Keep media very moist and near saturation.
- Do not cover or bury the seed.
- Germination temperature: 72 to 76°F (22 to 24°C).

- Light levels at 100 to 400 f.c. (1,000 to 4,000 Lux) will enhance germination.
- Keep soil pH at 6.0 to 6.2 and soluble salts (EC) less than 0.75 mmhos/cm (2:1 extraction). Keep ammonium levels less than 10 ppm.
- Impatiens are sensitive to high salts during germination.

Plug Production

Stage 1 – Time of radicle emergence (3 to 5 days)

- Keep media very moist and near saturation.
- Do not cover or bury the seed.
- Germination temperature: 72 to 76°F (22 to 24°C).
- Light levels at 100 to 400 f.c. (1,000 to 4,000 Lux) will enhance germination.
- Keep soil pH at 6.0 to 6.2 and soluble salts (EC) less than 0.75 mmhos/cm (2:1 extraction). Keep ammonium levels less than 10 ppm.
- Impatiens are sensitive to high salts during germination.

Stage 2 – Stem and cotyledon emergence (10 days)

- Reduce moisture levels once radicle emergence occurs. Allow the soil to dry out slightly before watering for best germination and rooting.
- Soil temperature should be 72 to 75°F (22 to 24° C).
- Light at 450 to 700 f.c. (4,500 to 7,000 Lux) using supplemental HID lights for 2 weeks after cotyledons have expanded (12 to 18 hours/day) decreases plug crop time.
- Maintain ammonium levels at less than 10 ppm and soil pH at 6.0 to 6.2 with an EC of less than 1.0 mmhos/cm.
- Begin fertilizing with 50 to 75 ppm N from 14-0-14 or a calcium/potassium nitrate feed once cotyledons are fully expanded.
- Alternate feed with 2 to 3 clear water irrigations.

Stage 3 – Growth and development of true leaves (14 to 21 days)

- Allow the soil to dry out thoroughly between irrigations, but avoid severe wilting to promote root growth and control shoot growth.
- Soil temperature should be between 68 to 72°F (20 to 22°C).
- Maintain soil pH 6.0 to 6.2 and EC less than 1.0 mmhos/cm.
- Increase feed to 100 to 150 ppm N from 20-10-20 alternating with 14-0-14 or other calcium/ potassium nitrate fertilizer.
- Fertilize every 2 to 3 irrigations.
- Use DIF (temperature differential) whenever possible to control plant height – especially the first 2 hours after sunrise. A-Rest, B-Nine, Bonzi or Sumagic can also be used.

Stage 4 – Plants ready for transplanting or shipping (7 days)

- Soil should still be allowed to dry thoroughly.
- Temperature should be maintained at 62 to 65°F (17 to 18°C).
- Keep soil pH at 6.0 to 6.2 and an EC less than 0.75 mmhos/cm.
- Fertilize with 14-0-14 or calcium/potassium nitrate feed at 100 to 150 ppm N as needed.
- Note: Impatiens require low to moderate feed levels. Excessive amounts will result in lush, vegetative stretched plugs.

Growing On to Finish

Temperature
- Night: 62 to 65°F (17 to 18°C)
- Day: 65 to 75°F (18 to 24°C)

Light
Maintain light levels as high as possible while maintaining moderate temperatures.

Media
Use a well-drained, disease-free soil less medium with a medium initial nutrient charge and a pH of 6.2 to 6.8.

Fertilization
- Fertilize every other irrigation with 15-0-15, alternating with 20- 10-20 at 150 ppm nitrogen.
- Maintain medium electrical conductivity around 1.0 mmhos/cm (using 1:2 extraction).

Controlling Height
- Once plants are rooted to the sides of the containers, they can be allowed to wilt prior to irrigation to provide some height control. Height can also be controlled by withholding fertilizer,

especially phosphorus and ammonium-form nitrogen.
- Impatiens are responsive to day/night DIF and shorter with a negative DIF.
- B-Nine, Bonzi and Sumagic are effective for height control. Always follow label instructions. B-Nine and Bonzi can delay flowering.

Common Problems
Insects: Aphids, thrips

Diseases: Pythium, Rhizoctonia, Botrytis, TSWV/INSV (Impatiens Necrotic Spot Virus)

Other: Boron deficiency, high media pH The most important disease and insect problem associated with impatiens is Impatiens Necrotic Spot Virus (INSV), which is transmitted by thrips. Control of thrips is necessary to avoid INSV.

NOTE: Growers should use the information presented here as a starting point. Crop times will vary depending on the climate, location, time of year and greenhouse environmental conditions. Chemical and PGR recommendations are only guidelines. It is the responsibility of the applicator to read and follow all the current label directions for the specific chemical being used in accordance with all regulations.

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