

Divine™ Series New Guinea Impatiens

I. hawkerii

Approximate seed count: 15,800 S./oz. (558 S./g)

Plug Production

Media

Use a well-drained, disease-free seedling medium with a pH of 5.8 to 6.2. A pH below 5.8 may cause iron and manganese toxicity. Maintain EC of about 0.75 mS/cm (1:2 extraction).

Sowing

The recommended plug sizes are 288 to 128-cell. Water adequately after sowing. Covering the seed is not required but a light coarse vermiculite cover can help maintain high relative humidity around the seed. Germination takes 6 to 8 days.

Temperature

Germination: 72 to 78°F (22 to 26°C)

After germination: Keep air temperature at 70 to 75°F (21 to 24°C) and soil temperature at 70°F (21°C) until transplant.

Light

Germination: High daily light integral (DLI; >15 moles·m⁻²·d⁻¹) in stages 3 and 4 improves plug quality and reduces total crop time.

Humidity

Maintain 100% relative humidity (RH) until radicles emerge. RH can be reduced gradually to approximately 75% as plugs mature.

Media Moisture

Maintain high moisture until late Stage 2, then start reducing moisture. New Guinea impatiens cannot tolerate wilt.

Fertilizer

At cotyledon expansion: Apply 50-100 ppm N (0.4 to 0.9 mS/cm EC) from low phosphorous-nitrate form fertilizers, such as 13-2-13 or 17-5-17.

Maintain medium EC between 0.7 and 1.0 mS/cm (1:2 extraction) and sodium levels below 50 ppm.

Transplanting

Flowering may be delayed from crowded conditions in a plug tray. Do not allow plugs to get root bound.

Growing On to Finish

Container Size

Divine New Guinea impatiens are best suited to 306 premium packs, 1801 flats, 4-in. (10-cm) to 6-in. (15-cm) pots and hanging baskets.

Media

Use a well-drained, disease-free growing medium with a pH of 5.8 to 6.2. A pH below 5.8 may cause toxicity of micronutrients such as iron and manganese.

Temperature

Maintain air temperature at 68 to 76°F (20 to 24°C) day and 65 to 68°F (15 to 20°C) night from transplant to sale. Maintain an average daily temperature (ADT) between 68 to 73°F (20-23°C). The warmer temperature will hasten flowering but reduce the flower size. Likewise, cooler temperatures will delay flowering, while flowers will be larger.

Light

Divine New Guinea impatiens are day neutral. High DLI of ≥15 moles·m⁻²·s⁻¹ increases the number of flowers and branches per plant. Low DLI can delay flowering.

Humidity

Keep the relative humidity above 75%, especially at night, so that plants may fully benefit from target greenhouse temperatures. Relative humidity below 75% can drive plant temperatures below ambient greenhouse temperatures.

Media Moisture

New Guinea impatiens are sensitive to over-watering. Do not use drought stress to regulate plant height as severe wilt may cause flower drop and flower bud abortion.

Fertilizer

New Guinea impatiens are moderate feeders and susceptible to injury from high soluble salts. Maintain EC below 1.5 mS/cm– and thoroughly irrigate to prevent salt accumulation. Constant liquid feed of 100-150 ppm N is recommended.

Pinching

Due to natural superior branching, pinching is not required and only increases the crop time.

Plant Growth Regulators

Plant growth regulator use may be needed depending on light, temperatures, variety and container size.

In North American conditions:

Early paclobutrazol (such as Bonzi) spray at 2 to 15 ppm or drench at 0.25 to 2.0 ppm can control height without reducing flower size. Start with low rates and adjust as necessary. Negative DIF can control height. Florel is not needed to promote branching.

In North European conditions: 1 or 2 spray applications of paclobutrazol at 2 to 4 ppm (0.5 to 1.0 ml/l 0.4% formulation) are effective.

For larger containers or hanging baskets, PGRs may not be needed.

Conduct your own trials to determine the best rate for your conditions.

Note: It is the responsibility of the applicator to read and follow all current label directions for the specific chemical being used and to use the PGR in accordance with all laws and regulations.

Crop Scheduling

Germination: 6 to 8 days

Finish time for 288 or 128 plugs: 5 to 6 weeks

Transplant to flower: Approximately 7 to 8 weeks

Total crop time from sowing: 12 to 14 weeks

Common Problems

Insects: Thrips, aphids, fungus gnats and mites.

Diseases: *Pythium*, *Rhizoctonia*, *Phytophthora*, *Botrytis*, Tomato Spotted Wilt Virus, Impatiens Necrotic Spot Virus, Powdery Mildew and Myrothecium.

Divine New Guinea impatiens has high/standard resistance (HR) to Impatiens Downy Mildew in accordance with terminology set by the International Seed Federation.

In the Garden

Home gardeners will see best results when they plant Divine New Guinea impatiens in partial sun to shade. Space plants 10 in. (25 cm) apart in the garden. Divine New Guinea impatiens also work well in baskets, containers and patio planters.