GrowerFacts

Petunia Vegetative Double Wave™

(*Petunia X hybrida*)

A Ball FloraPlant Product

Propagation

- Choose a well-drained medium with an EC of 0.75 to 0.80 mmhos and a pH of 5.4 to 5.8
- Stick cuttings within 12 to 24 hours of arrival. Cuttings can be stored overnight, if necessary, at 45 to 50°F (7 to 10°C)
- Soil temperature should be maintained at 68 to 73° F (20 to 23°C) until roots are visible
- Begin fertilization with 75 to 100 ppm N when roots become visible. Increase to 150 to 200 ppm N as roots develop
- Once roots are visible, the media should be kept moderately wet and never saturated. This will prevent iron deficiency and the associated chlorotic foliage which can develop
- As the rooted cuttings develop, appropriate water stress and moderate air temperatures should eliminate the need for chemical plant growth regulators (PGR)
- **Double Wave** Petunia rooted cuttings should be ready for transplanting 24 to 28 days after sticking

Growing On to Finish

Media

Use a well-drained, disease-free, soilless medium with a pH of 5.4 to 5.8.

Temperature

- Nights: 53 to 61°F (12 to 16°C)
- Days: 59 to 76°F (15 to 24°C)
- Higher than recommended temperatures will cause stretch, weak stems and reduced flower size
- Recommended night temperatures will create maximum branching and the best possible habit

Light

- Keep light intensities at 5,000 to 8,000 f.c. (50,000 to 80,000 Lux)
- Low light levels promote stem stretch, reduce plant quality and increase the need for PGRs
- For **Double Wave** Petunias, flowering is best under long days of Spring and Summer. Generally, flowering will be heaviest in April to September. Crop times will be significantly lengthened under short daylengths
- For fastest flowering during short daylength, maintain night temperatures at 59 to 61°F (14 to 16°C) and use lighting to provide a daylength of 13 to 14 hours

Watering

- Plants are susceptible to Botrytis – avoid high humidity, constantly saturated media and wet foliage
- Vegetative petunias are susceptible to root diseases if over-watered. Allow the media to dry slightly between waterings, but avoid any wilt

Fertilizer

- Vegetative petunias require heavy fertilization.
- Constant feed with a balanced fertilizer which contains a full complement of minor elements at 225 to 300 ppm N.
- Irrigate with clear water periodically to reduce the possibility of high soluble salts problems.

Media pH Managemen

- Plants must be monitored regularly for early, visual signs of upward pH drift (interveinal yellowing on youngest leaves). Regular soil pH tests are an excellent way to identify movements in pH before they create visual symptoms, which can be difficult to correct.
- Periodic application of acidic feed or drench applications of a chelated iron product can be used to maintain appropriate pH levels.
- An effective method of lowering pH is a soil drench of iron sulfate. The foliage must be rinsed immediately after treatment since the iron sulfate solution which can result in phytotoxicity to flowers and foliage.

Pinching

- Pinch plants back 10 to 14 days after transplanting to improve basal branching
- For a larger basket or container, a second pinch can be applied, but will delay flowering approximately 2 weeks

Controlling Growth

- Use high light and cool temperatures to control growth
- To control growth and improve flowering and habit, growers can use 1 or more application of B-Nine (1,500 to 2,500 ppm) starting 7 to 14 days after transplant
- Mature plants which are approaching shipping size can be drenched with Bonzi at 0.25 to 1.0 ppm to significantly slow vegetative growth and allow flowering to continue
- Use of PGRs can delay flowering 1 to 2 weeks.

Avoid spraying once flower buds appear
- In general, more frequent applications of any growth regulator at a lower concentration will produce best results
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions

Common Problems

Insects: Aphids, thrips, whitefly, leafminers, fungus gnats

Diseases: Botrytis, Rhizoctonia, Pythium

All **Double Wave** Petunia cuttings are derived from culture and virus-indexed stock from the **Ball Certified Plants®** program.Always start with clean flats and pots and apply a broad spectrum preventative fungicide drench following transplant.

Problem: Plant collapse

Causes: Wet media for an extended period (Pythium); Rhizoctonia due to planting too deep

Problem: Delayed flowering

Causes: Daylength too short; Late application of growth regulators

Problem: Excessive vegetative growth

Causes: High ammonia concentration in the soil; Over-fertilization under low light conditions; Low light and over-watering; wet media

Problem: Poor branching

Causes: Low fertilization; lack of nitrogen

Problem: Stretched plants

Causes: Low light

Problem: Chlorosis

Causes: Iron deficiency; High pH; Nitrogen deficiency

Double Wave Spreading Double Petunias Crop Schedule & Uses

Unrooted cuttings:
4-In. (10-Cm) Pots 1 PP* 9 - 11 weeks
6-In. (15-Cm) Pots 1–2 PP* 10 - 12 weeks
10-In. (25-Cm) Pots 3–4 PP* 12 - 15 weeks
12–14-In. (30–35-Cm) Pots 3–4 PP* 13 - 15 weeks

Rooted cuttings:
4-In. (10-Cm) Pots 1 PP* 6 - 8 weeks
6-In. (15-Cm) Pots 1–2 PP* 7 - 9 weeks
10-In. (25-Cm) Pots 3–4 PP* 9 - 12 weeks
12–14-In. (30–35-Cm) Pots 3–4 PP* 10 - 12 weeks

*PP: Plants per pot or basket

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.

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