

Wonder Wave Series Spreading Petunias: Growing On to Finish

Detailed Ride the Wave® Lighting Chart

Important Notes for Producing Top-Quality Wonder Wave Plants

- **Wonder Wave® petunias are long-day plants.** See **Growing On to Finish – Photoperiod/Light** for specific details.
- New variety Wonder Wave Purple Improved is less daylength sensitive and flowers about one week earlier than Wonder Wave Purple Classic.
- **Because of their very vigorous growth, Wonder Wave petunias require a higher rate of plant growth regulators than standard petunias.** See **Growing On to Finish – Growth Regulators** for specific details.
- **Tips for finishing larger liners.** See below.

Plug and Larger Liner Production

Refer to the separate **Wonder Wave Spreading Petunias Plug and Liner Production** Grower Facts for complete details.

Growing On to Finish from Plugs

Media

Use a well-drained, disease-free, soilless medium with a pH of 5.5 to 6.3 and a medium initial nutrient charge.

Temperature

Nights: 13 to 16°C (55 to 65°F)

Days: 16 to 18°C (65 to 75°F)

Wonder Wave can be grown as cool as 10°C (50°F)

Crop timing (time to flower) is related to average temperature when grown under proper day length.

Wonder Wave plants will take longer to flower when grown in cooler conditions.

If properly acclimated, **Wonder Wave** petunias can tolerate temperatures several degrees below freezing.

Photoperiod/Light

Ride The Wave petunia lighting requirements vary by location, variety and production week. Refer to the *Supplemental Lighting Chart* on the following page.

Start long-day or night-interruption conditions at 5-leaf count or earlier. Continue long-days until plants have a minimum of 12 leaves or until proper natural daylength is reached. When producing **Wonder Wave** petunias early in the year when days are short, decrease crop times by continuing to use

supplemental lighting. Day extension or night break (providing a 4-hour night interruption from 10:00 p.m. to 2:00 a.m.) are acceptable.

Both HID and incandescent lights are equally effective for flower induction. For initiation, light levels of 100 Lux (10 f.c.) at 3 m (10 ft) above plant canopy is recommended. However plants grown under incandescent lights will stretch more and need more PGRs to control plant size. Incandescent lights will also affect plant habit by causing shoots to be more upright than under short days, particularly for **Wonder Wave** Rose and **Wonder Wave** Pearly. Plants will resume their normal spreading habit under natural light conditions in the garden. Keep light levels as high as possible while maintaining moderate temperatures. High light levels or PGR applications may cause white “splashes” or star patterns to appear on the blooms of **Wonder Wave** Pearly.

Fertilizer

Wonder Wave petunias require more fertilizer than is usually recommended for petunias. For best results, apply nitrate-form with low phosphorus fertilizer at rate 4 1.5-2.0 mS/cm EC (225 to 300 ppm N) every other irrigation. Apply a balanced ammonium and nitrate form fertilizer with low phosphorus as needed to encourage growth and balance medium pH. Maintain medium pH 5.8 to 6.2. To assure consumer satisfaction, an optional top dressing with slow-release fertilizer can be applied 10 days before shipping.

Growth Regulators

The following growth regulator schedule is used for growing on **Wonder Wave** petunias at the PanAmerican Seed Co. Venjuizen facility in the Netherlands. This “recipe” results in 15-cm (6-in.) pots of heavily branched **Wave** plants with a spread of approximately 25 to 30 cm (10 to 12 in.) when flowering begins – the perfect look for point of sale. For **Wonder Wave** Rose and **Wonder Wave** Pearly the pots will be covered with blooms. For **Wonder Wave** Blue, **Wonder Wave** Pink, **Wonder Wave** Purple Improved, **Wonder Wave** Purple Classic and **Wonder Wave** Lavender, the first flowers will appear closer to the center of the pot.

15-cm (6-in.) Pots

Apply a B-Nine/Alar (daminozide) spray at 2.9-5.9 g/l, 85% formulation or 3.9-7.5 g/l, 64% formulation (2,500 to 5,000 ppm) 7 to 10 days after transplanting. Repeat 7 days later. Use a Bonzi drench one time at 1.5-2 ml/l, 0.4% formulation (6-8 ppm). For Wonder Wave Lavender, Wonder Wave Rose and Wonder Wave Blue a lower dose could be used. Apply this drench 3 to 4 weeks after transplanting or when shoots have reached the edge of the pot. Follow with a Bonzi spray one time at 3-7 ml/l, 0.4% formulation (12 to 28 ppm) one week later for additional control if necessary. For Wonder Wave Purple Improved a Bonzi spray higher than rest of varieties could be needed to end with. But don't go higher than 7 ml/l, 0.4% formulations (28 ppm).

Note: Topflor can be used in place of Bonzi at 2/3 the rate of Bonzi.

Somewhat dry conditions during the finishing stage will also keep **Wonder Wave** petunias more compact; allow plants to wilt slightly between waterings. If plants are grown pot-tight, PGR applications must be done more often or at higher rates than plants that are spaced over time. High temperatures or a moist growing regime may also necessitate greater PGR application rates to produce the best product.

Hanging Baskets

Can be treated as a 15 cm (6-in.) pot.
Lower rates if more growth is needed.

B-Nine/Alar improves branching, but may delay flowering about 1 week. Bonzi does not appear to affect flower timing. Plants grow out of either plant growth regulator almost immediately after transplant to the landscape.

Common Problems

No major problems will occur if using good cultural and IPM practices.

Crop Scheduling

Sow to transplant (264-cell plug): 5 to 6 weeks

Transplant to flower:

Spring: 7 to 10 weeks under long days

Summer: 4 to 7 weeks under long days with high light and minimum night temp. of 18°C (65° F).

Total Crop Time:

Spring: 12 to 16 weeks

12cm (4.8-in.) pot	1 plant per pot	12-14 weeks
15-cm (6-in.) pot	1 plant per pot	12-14 weeks
25-cm (10-in.) basket	3-4 plants per basket	14-16 weeks

Summer: 9 to 13 weeks

12-cm (4.8-in.) pot	1 plant per pot	9-11 weeks
15-cm (6-in.) pot	1 plant per pot	9-11 weeks
25-cm (10-in.) basket	3-4 plants per basket	10-13 weeks

Wonder Wave Purple Improved, Wonder Wave Lavender, Wonder Wave Blue, Wonder Wave Pearly, Wonder Wave Salmon and Wonder Wave Rose flower up to one week earlier than **Wonder Wave Purple Classic and Wonder Wave Pink**.

Container Size:

Containers should be 4.5-SVD (11-cm) or larger.

Container Size	Variety	Plants Per Pot/Basket
11 to 15 cm (4.5 to 6 in.)	All	1
25 cm (10 in.) HB	Purple Improved, Purple Classic, Pink, Pearly	3
25 cm (10 in.) HB	Blue, Rose, Salmon, Lavender	4

Growing On to Finish from Large Liners

Photoperiod

Wonder Wave needs natural day during spring when day length is longer than 11 hours.

***Ride The Wave** petunia lighting requirements vary by location, variety and production week. Refer to the Supplemental Lighting Chart on the following page*

Growth Regulators

One or more (if grown pot-to-pot) Bonzi 5-8 ml/l, 0.4% formulation (20 to 32ppm) spray applications based on temperature, weather conditions and cultural practice. All other environmental conditions follow the normal production.

Crop Scheduling

Sowing to transplant: 6 to 7 weeks for direct sowing; 7 to 9 weeks for transplant from small plug.

Transplant to flower: 5 to 6 weeks from 50-cell liner

(1 more week for **Wonder Wave Purple Classic** and **Wonder Wave Pink**); 5 to 7 weeks from 72-cell liner (1

more week for **Wonder Wave Purple Classic** and **Wonder Wave Pink**).

PanAmerican Seed™

PanAmSeed.com

PanAmerican Seed Co.
622 Town Road
West Chicago, Illinois USA 60185-2698
630 231-1400
Fax: 630 231-3609

PanAmerican Seed Europe BV
Lavendelweg 10
NL-1435 EW Rijsenhout, Holland
+31 (0)297-383038
Fax: +31 (0)297-383036

™ denotes a trademark of and ® denotes a registered trademark of Ball Horticultural Company in the U.S. It may also be registered in other countries.

©2004 Ball Horticultural Company Printed in USA PAS05069

Hanging Basket Tips

At the end of production, maintain fertilization and utilize PGRs. Do not eliminate fertilization to control growth just prior to shipping. Apply fertilizer at half rate and, to hold plant habit, utilize PGRs. Provide good air circulation at the plant level. This reduces potential for disease and die-off.

Do not allow plants to wilt. Maintain moderate moisture levels. This will provide better plant performance and color in the center of the 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. 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

Handy Tips For Retailers

Keep **Wonder Wave** plants fresh and healthy at point-of-sale:

- Display **Wonder Wave** petunias in filtered sunlight – in direct sun, the plants dry out quickly and require more frequent watering.
- Keep **Wonder Wave** petunias watered. The soil should never dry out completely.
- In the display, space **Wonder Wave** petunias with the leaves just touching between the plants.
- Feed the plants with a liquid fertilizer once a week at the ratio recommended on the label.
- Remind home gardeners that **Wonder Wave** petunias grow rapidly. These annuals can quickly fill in a square meter of garden space in just a few weeks.

Home Gardener Information

Spread the word to consumers about: Wave-Rave.com – it's loaded with helpful gardening tips and care instructions.

PanAmericanSeed™

PanAmSeed.com

PanAmerican Seed Co.
622 Town Road
West Chicago, Illinois USA 60185-2698
630 231-1400
Fax: 630 231-3609

PanAmerican Seed Europe BV
Lavendelweg 10
NL-1435 EW Rijsenhout, Holland
+31 (0)297-383038
Fax: +31 (0)297-383036