

Wave[®] Series Spreading Petunias Plug & Liner Production

Tips for the Best Germination Rates & Highest Number of Usable Seedlings

- Wave[®] Purple, Blue, Pink Improved and Lavender require light to germinate. See Plug Production – Light for specific details.
- Wave Purple requires warm temperatures to germinate. See Plug Production – Temperature for details.
- Wave Purple benefits from very moist conditions during Stage 1. See Plug Production – Soil Moisture for details.

Important Notes for Producing Top-Quality Wave Plants

- Because of their very vigorous growth, Wave petunias require a higher rate of plant growth regulators than standard petunias. See Plug Production – Growth Regulators for specific details.
- Tips for larger liner production. See below.

Plug Production

Because their spreading habit begins after transplanting, you can produce Wave plugs like other petunias.

Media

Use a well-drained, disease-free seedling medium with a pH of 5.5 to 6.0 and EC about 0.75 mmhos/cm (1:2 extraction).

Sowing

Covering Wave seed is not recommended. Water adequately to completely dissolve the pellet.

Temperature

Germination: 72 to 76°F (22 to 24°C)

Cotyledon stage: 68 to 75°F (20 to 24°C)

True leaves: 65 to 70°F (18 to 21°C)

Hold plugs: 60 to 65°F (16 to 18°C)

For best results with Wave Purple, optimal temperatures at Stage 2 are 68 to 72°F (20 to 22°C), while 65 to 68°F (18 to 20°C) is recommended at Stage 4.

Light

Wave Blue ('PAS97502'), Wave Pink Improved ('PAS97504'), Wave Purple ('PAS3187') and Wave Lavender ('PAS95053') require light during Stage 1; because of this, it is generally best to germinate them on the greenhouse bench, providing adequate heat and moisture. Light is optional for Wave Misty Lilac ('PAS3190') and Wave Rose ('PAS3191').

Stage 1: 10 f.c. (100 Lux) or more

After germination: 1,000 to 2,500 f.c. (10,000 to 30,000 Lux)

Seedling maturity: Up to 5,000 f.c. (54,000 Lux) if temperature can be controlled

See the separate Wave Spreading Petunias Growing On to Finish Grower Facts for more details on long-day requirements.

Humidity

Maintain 100% relative humidity (RH) until cotyledons emerge. RH can be reduced gradually to approximately 50% as plugs mature.

Soil Moisture

Wave petunia seed is pelleted. Apply above-average amounts of soil moisture during Stage 1 to melt the pellet completely, especially for Wave Purple.

Fertilizing

At radicle emergence: 50 ppm N from low phosphorus-nitrate form fertilizer.

As cotyledons expand: Increase to 100 to 150 ppm N. Maintain medium EC between 1.0 and 1.5 mmhos/cm (1:2 extraction).

Growth Regulators

Control Wave plug growth first by environment, nutrition and irrigation management, then with chemical plant growth regulators if needed. Minimize ammonium-form nitrogen fertilizer to avoid seedling elongation. Temperature differential (DIF) can also be used to minimize height. Test all chemical plant regulators first.

Spray B-Nine at 5,000 ppm during Stage 3; repeat during Stage 4.

Large Liner Production

For finished plant growers who do not have supplemental lighting and wish to finish **Wave** spreading petunias with the same PGRs as regular petunias, the best choice is to use larger, pre-lit liners. The following program produces **Wave** liners which have flower buds induced and all the heavy PGR applications already taken care of.

Liner Size

72-cell or larger. **Wave Purple**, **Wave Lavender** and **Wave Pink Improved** require 50-cell for uniform flowering.

Sowing

Direct sow into liner or transplant from 512 or 406-plug into liner. **Note:** If direct sowing, follow all germination requirements.

Photoperiod

Start long-day conditions (daylength extension to 14 hours or 4-hour night interruption) at 5-leaf count or earlier. Continue long-days until plant leaf number reaches 12 (about 6 to 7 weeks from sowing, depending on soil temperature, or up to 9 weeks if transplanted from small plugs).

Growth Regulators

To achieve May flowering with a liner production time of 6 weeks, use the following schedule:

Week 3: B-Nine at 5,000 ppm

Week 4: B-Nine at 5,000 ppm

Week 5: Bonzi 50 to 60 ppm spray, or tank-mix of Bonzi 30 ppm and B-Nine 2,500 ppm

Week 6: Bonzi 50 to 60 ppm spray, or tank-mix of Bonzi 30 ppm and B-Nine 2,500 ppm

If liner production is taking place during periods of cool temperatures and low light, the liner production period is about one week longer (about 7 weeks). Therefore, all PGR applications can be postponed one week (postpone 2 weeks if transplanted).

All other environmental conditions follow normal plug production regimes.

Note: Do not overgrow **Wave** plugs. If plugs become rootbound, the plant slows/stops growing. It takes about 1 to 2 weeks for plants to recover after transplanting from rootbound plugs. Make sure roots have optimum room for fastest crop timing.

Growing On to Finish

Refer to the separate **Wave Spreading Petunias: Growing On to Finish** Grower Facts for complete details.

PanAmerican Seed

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

™ 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.
WAVE is a registered trademark of and bred by Kirin Brewery Co., Ltd.

© 2003 Ball Horticultural Company Printed In USA PAS03083 REV2 2/03