Petunia x hybrida F_1

SUCCESS!® 360°



Impressive Flower Show from 360°

- Round growing grandiflora Petunia
- Uniform, early flowering plants with large, attractive flowers
- Wide range of colors with star shades
- Fast filling of packs and pots

- The Benary Petunia pellets require more water than usual to dissolve; this is crucial to ensure rapid and uniform germination.

Only available as pelleted seeds in North America.

Crop Time	Spring: 9 - 13 weeks
Height ⌀	13 " / 33 cm
Width ⌀	11 " / 28 cm
Exposure	Sun
Seed Form	Raw Seed, Pelleted Seed
Product Use	Packs, Pots, Mixed Containers, Landscape
Family, Origin	Solanaceae, South America
Minimum Germ. Rate	85%

TECHNICAL GUIDE

Petunia x hybrida F_1 SUCCESS!® 360°

Flowering

Flowering Type: Facultative long day plant. Long days and high irradiance will promote flowering.

Flowering Mechanism: Flowering is affected by day-length, irradiance and temperature.

Plug Culture

Germination: Optimum conditions for seedling development, beginning on the day of sowing until radicle emergence. Expect radicle emergence in 3-5 days.

Sowing method: 1 pellet per plug.

Media: pH 5.5-5.8; keeping the pH below 6.0 will help to keep boron and iron available. EC 0.5-0.75.

Cover: No cover is necessary. Light is required for germination.

Temperature: 22-24 °C (72-76 °F) until radicle emergence. The temperature can be lowered approximately on day 5 to 20-22 °C (68-72 °F). Once cotyledons have fully expanded, reduce the temperature further to 18-20 °C (64-68 °F).

Moisture: Begin by watering to saturated (5); applying enough water to help dissolve the pellets. After sowing do not allow the pellets to dry back before moving to the germination chamber or benches. Maintain saturation (5) for 3–4 days or until radicle emergence. On day 5 reduce media moisture to wet (4) for the next 5–6 days. On day 10 reduce the moisture further to medium (2). Alternate between wet (4) and a medium (2) between watering.

Humidity: 95–100 % until day 5; then reduce to 40–60 %. Reducing the humidity will help to prevent the seedlings from stretching. Provide proper ventilation and horizontal airflow to improve oxygen levels in the media.

Light: Light is necessary for germination. If using a germination chamber, provide 100–100 ft. candles (100–1,000 lx).

Fertilizer: Maintain an EC < 1.0. Fertilized water should not exceed an EC of 0.5. Upon initial germination after 5–6 days, begin feeding with 50 ppm nitrogen. Pay attention to the addition of boron since low boron can cause tip abortion. Ideal boron concentration is 0.5 ppm.

Plug Bulking and Flower Initiation: Optimum conditions during the vegetative stage from cotyledon expansion to flower initiation. This stage is when the seedlings root to the edge of the plug and reach the 3–5 true leaf stage where flower initiation occurs.

Media: pH 5.5–5.8; EC 1.25–1.5.

Light: Petunias are facultative long day plants, so a longer day length and higher light levels will promote early flowering. Provide a minimum day length of 11.5 hours. To initiate flowering under short days, extend the day length to 13.5-14 hours. Long days with low light conditions require supplemental lighting of 350-500 ft. candles (3,500-5,000 lx). Petunia will flower more quickly when young plants are given a long day treatment.

Temperature: 18-20 °C (64-68 °F) until day 28, then reduce the temperature to 15-18 °C (58-64 °F). Keep temperatures > 16 °C (60 °F) until the plants are ready to transplant. For the fastest finish maintain an average daily temperature of 19.5 °C (67 °F).

Moisture: On approximately day 10 start to alternate between a wet (4) and a medium (2) between watering. Allow the media moisture level to approach a medium (2) before resaturating to wet (4).

Fertilizer: Pay attention to the addition of boron since low boron can cause tip abortion. Ideal boron concentration is 0.5 ppm. Fertilize established seedlings at 100-175 ppm nitrogen. Under high light conditions, apply an ammonium based fertilizer (17-5-17) or (20-10-20). Under low light conditions, apply a calcium based fertilizer (14-4-14) or (15-15). Under high light and long or extended days, an ammonium based feed (20-10-20) is preferred. For more shoot growth, add an additional ammonium treatment to the schedule. To prevent stretching under low light and cool temperatures, reduce ammonium and apply only calcium based fertilizer.

Growth Regulators: Petunias are very responsive to B-Nine (daminozide) sprays in the early stages. Apply the first application early, on day 7-10 as a spray at 2,500 ppm, for toning the seedlings. Afterwards, they should not require additional growth regulators. For SUCCESS!® 360°, later applications can be used as a spray at 2,500-5,000 ppm. B-Nine can be used as the main growth regulator up until bud set. If applied too many times or when buds are visible it can cause smaller and even distorted flowers. Bonzi or Piccolo (paclobutrazol) spays can also be used effectively. In the early stages rates vary depending on temperature and light.

Growing On
Media: pH 5.5-5.8; EC 1.5-2.0.

Light: Provide 12-18 mol/m2/day (3,500-5,000 ft. candles or 35,000-50,000 lx) of light in the finishing stages. Petunias need long days to flower. To initiate bud under short days, extend the day length to 14 hours. Long days with low light conditions require supplemental lighting of 350-500 ft. candles (3,500-5,000 lx).

Temperature: After transplanting, always maintain temperatures > 13 °C (56 °F) during night for the first 3-4 weeks to initiate flower bud development. These low night temperatures encourage basal branching and compactness for a higher quality plant. However, lower temperatures may also substantially decrease the number of flowers initiated. An average daily temperature of 17-21 °C (62-70 °F) will work well.

Moisture: Alternate between moisture levels wet (4) and medium (2). Allow plants to reach medium (2) before re-saturating to wet (4).

Humidity: 40-60 % humidity is ideal. Providing good ventilation and horizontal air flow will help lower the humidity and dry back the media, providing oxygen to the roots.

Fertilizer: Feed at 100-200 ppm nitrogen. Under high light conditions, apply an ammonium based fertilizer (17-5-17) or (20-10-20). To prevent stretching under low light conditions, apply a calcium based fertilizer (14-4-14) or (15-5-15). Under high light and long days an ammonium based feed (20-10-20) is preferred.

Growth Regulators: The genetically compact series SUCCESS!® HD and BOOM!™ HD do not require repeated applications of growth regulators after transplanting. For SUCCESS!® 360°, B-Nine (daminozide) as needed at 2,500-5,000 ppm. Apply B-Nine before the buds are visible. Late applications can delay flowering and reduce flower size. Petunias are also responsive to Bonzi and Piccolo (paclobutrazol) sprays, Sumac (uniconazol) or B-Nine/Cycocel (chlormequat chloride) tank mix. Later sprays with Bonzi and Piccolo can be made at 5-8 ppm with rates varying depending on light and temperature.

Fungicide: Apply fungicides during long periods of low light and high humidity.

Common Diseases: Botrytis, rhizoctonia, pythium.

Pests: Primarily aphids and thrips.

Post Harvest: Fertilize with potassium nitrate at 100 ppm 1-2 weeks prior to shipping.

Plug & Finished Crop Time

Plug Crop Time

288 tray: 4-5 weeks

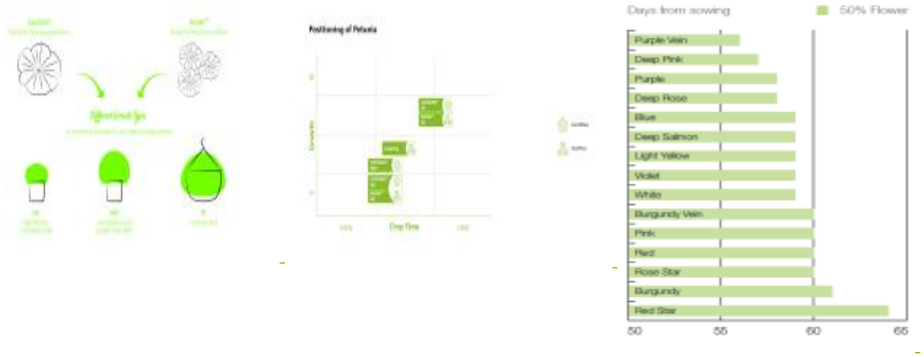
Finished Crop Time

Packs: 4-5 weeks

12 cm (5") pots: 5-7 weeks

15 cm (6") pots: 6-7 weeks

Timing & Positioning Charts



Moisture Codes

Saturated (5)	Water is easily observed when finger is pressed on cell. Water moves freely from the top of the plug to the bottom.
Wet (4)	Media looks black and is not glistening. The media feels wet to the touch but there is very little water movement.
Moist (3)	Water is not easily visible. When finger is pressed on the cell there is very little movement from top to bottom.
Medium (2)	Media is not black, but now looks medium brown. There is no water movement when pressed with finger.
Dry (1)	Media has changed color to a very light brown and is dry to the touch.

All information in our technical guide is based on our own trials and would therefore be as guideline only. Detailed cultivation aspects vary depending on climate, location, time of year and environmental conditions. Benary expressly disclaims any responsibility for the content of such data/information and makes no representation or warranty for the cultivation of any products listed. It is recommended that growers conduct a trial of products under their own conditions.

COLORS OF THE SERIES

Petunia x hybrida F_1 SUCCESS!® 360°



White
PH0501R/P



Light Yellow
PH0515R/P



Burgundy IMPROVED
PH0508R/P



Burgundy Vein
PH0510R/P



Red
PH0505R/P



Red Star
PH0512R/P



Deep Salmon
PH0502R/P



Deep Pink
PH0513R/P



Pink
PH0503R/P



Deep Rose
PH0504R/P



Rose Star
PH0511R/P



Purple
PH0507R/P



Purple Vein
PH0509R/P



Violet
PH0514R/P



Blue
PH0506R/P



Maxi Mix
PH0599R/P