

<b>Cultural Information for:</b>	Petunia Explorer	Annual
<b>Common Name:</b>	Spreading Petunia	
<b>Botanical Name:</b>	Petunia hybrida	
<b>Seed Count:</b>	255,000 - 312,000/ounce	9,000 - 11,000/gram
<b>Optimum Germination Temperature:</b>	78°F / 26°C	
<b>Optimum Growing Temperature:</b>	65-75°F/18-24°C	
<b>Optimum pH:</b>	5.5 – 6.0	
<b>EC – Plug:</b>	0.4 – 0.8 mmhos/cm (1:2) / 0.9 – 2.0 (SME) / 1.1 - 2.6 (Pour Thru)	
<b>EC – Finishing:</b>	0.9 – 1.3 mmhos/cm (1:2) / 2.1 – 3.5 (SME) / 2.7 - 4.6 (Pour Thru)	

## Plug Culture - 4 weeks (200 / 10 x 20 tray)

**Stage One** (days 1-7) Sow pelleted seed in a well drained sterile media with a pH of 5.8 to 6.2 and maintain a temperature of 72-75°F/22-24°C. For proper and uniform germination do not cover the seed and use a fine mist for watering. Be sure to apply sufficient moisture at the start to thoroughly melt the pellets.

**Stage Two** (days 8-14) After the seedlings emerge, reduce moisture levels and allow the media to dry slightly in between fertilizer applications. Apply 100 ppm of Nitrogen from a well-balanced Calcium Nitrate-based fertilizer and place in a well-ventilated greenhouse with high light. Optimum temperatures range from 65°F/19°C at night and 75°F/25°C during the day.

**Stage Three** (days 15-21) Seedlings are beginning to fill in the plug trays. Fertilize as needed to maintain strong growth. As leaves reach the edge of the plug tray a light application of B-Nine (daminozide) at 2,500 ppm will help tone the plants. Supplemental lighting will promote leaf expansion and root development; especially during the darker months of January and February.

**Stage Four** (days 22-28) The plants are now reaching maturity and are ready for transplanting into pots and packs. Reduce moisture and hold at 60°F/15°C until transplanted.

## Transplanting: 6 to 8 weeks

**Container Size:** Select a minimum pot size of 4 inches/10 cm in diameter or larger. One plant is sufficient per 4 or 6 inch/10 or 15 cm pot with 3 plants per 10 inch/25 cm basket.

**Media:** Use a well-drained disease-free, soilless media with a pH of 5.5 to 6.0 and a moderate fertilizer starter charge

**Temperature:** Maintain night temperatures between 55-65°F/13-16°C and day temperature between 65-75°F/18-24°C.

**Fertilizer:** Explorer petunias require more fertilizer than other types of petunias. For best results apply 250 ppm of Nitrogen at each irrigation using a well-balanced fertilizer. Calcium Nitrate-based fertilizers will help control excessive growth, but excess bicarbonate should be neutralized to avoid raising the pH above 6.3 as Petunia Explorer is sensitive to iron and boron deficiency. Plants can be top dressed using a slow-release fertilizer 10 days prior to shipping to enhance consumer satisfaction.

**Flowering:** Explorer petunias are less sensitive to day length than other petunias of its type. Explorer will start to flower in late March to early April without supplemental lighting. In order to accelerate flowering, light the plants starting at the 5th leaf stage. Night interruption (10 pm to 2 am) or day extension (7pm to 11 pm) using either HID or incandescent lights is recommended. HID lights will keep the plants more prostrate while incandescent lights will cause the plants to grow more upright.

**Growth Regulators:** Explorer petunias are vigorous and will require some growth regulating in order to make salable plants. An application of 2,500 ppm B-Nine at day 7 and again at day 14 following transplanting is recommended. A Bonzi (paclobutrazol) drench of 5 ppm 3-4 weeks after transplant may also be necessary to keep the plants compact.

**Crop Scheduling:** Explorer petunias will flower in 6-8 weeks following transplant under long days in the spring and in 4-6 weeks from transplant during the summer under long days with high light and a minimum temperature of 65°F/18°C.

Container Size	Crop time - Spring	Crop time - Summer
4 inch / 10 cm	10 weeks	8 weeks
6 inch / 15 cm	10 weeks	8 weeks
Large hanging Basket	12 weeks	10 weeks

*“All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on North American conditions and Sakata cannot be held responsible for any crop damage related to the information given herein. Application of recommended growth regulators and chemicals are subject to local and state regulations. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.”*