**Frost™, Storm™, Bravo™, Ultra™, Hurrah™, PrimeTime™**

**PETUNIA GRANDIFLORA/PETUNIA MULTIFLORA**

**Minimum Germination Rate:** Storm, Ultra: 90%; Frost, Bravo, Hurrah, PrimeTime: 85%

**Seed Product Form:** Pelleted, raw

### FLOWERING

- **Time frame when plants are receptive to flower initiation:** Days 14 – 21; 3 – 4 leaves.
- **Flowering Type:** Facultative long-day plant – long days required for flowering.
- **Specific Flowering Mechanism:** Flowering is affected by daylength, irradiance and temperature.

### PLUG CULTURE

- **Germination:** Optimum conditions for seedling development that begins the day the crop is sown until cotyledon expansion.
  - Expect radicle emergence in 3 – 5 days.
- **Cover:** Do not cover the seeds.
- **Media:** pH: 5.5 – 5.8
  - EC: 0.75 – 1
- **Light:** Light is necessary for germination. Provide a light source of 10 – 100 foot candles (100 – 1,000 lux) if utilizing a chamber.
- **Moisture:** Saturated (5) for days 1 – 3. On days 4 – 6 reduce moisture to wet (4). Reduce further beginning day 7 to medium (2).
- **Humidity:** 100% until radicle emergence then reduce to 40%.
- **Dehumidify:** Provide horizontal airflow to aid in drying down the media through evapotranspiration, allowing better penetration of oxygen to the roots.
- **Temperature:** 72° – 76°F (22° – 24°C) until radicle emergence. Gradually reduce to 62° – 65°F (16° – 19°C) as cotyledons expand.

- **Plug Bulking/Flower Initiation:** Optimum conditions during the vegetative period, beginning at cotyledon expansion, needed for the root to reach the edge of the plug cell AND to make the plant receptive to flower initiation.
  - **Media:** pH: 5.5 – 5.8
  - EC: 0.5 – 1
  - **Light:** Provide 2,500 – 3,000 foot candles (2,500 – 3,000 lux). Supplemental lighting at 400 foot candles (4,000 lux) for a 14-hour day will induce early flowering.
  - **Temperature:** 65° – 68°F (18° – 20°C). Once seedlings are established, gradually reduce night temperatures to 59 F (15 C) to initiate early flowering.

### Average Daily Temperature (ADT): 67°F (19°C)

#### Moisture:
- Alternate between moisture levels wet (4) and dry (1). Allow media to approach level (1) before re-saturating to level (4).

#### Dehumidify:
- Provide horizontal airflow to aid in drying down the media through evapotranspiration under cool, low light conditions.

- **Fertilizers:** Under high light conditions, apply an ammonium-based feed (17-5-17). Under low light conditions, apply a calcium-based feed (14-4-14).
  - Under high light and long or extended days, an ammonium-based feed (20-10-20) is preferred. To prevent stretching under low light and cool temperatures, reduce ammonium and apply only calcium-based fertilizer.

- **Growth Regulators:** Apply two applications of B-Nine (diaminozide) at 2,500 – 5,000 ppm. Apply B-Nine before the buds are visible. Late applications will distort flower color and size. Also responds to DIF treatments, Bonzi (pacloributrazol), Sumagic (uniconazol) or B-Nine/Cycocel (chloromequat chloride) tank mix.

- **Common Diseases:** Botrytis, Rhizoctonia

- **Common Pests:** Thrips

### PRODUCT USE

- **Packs, pots, containers, mass plantings**

### GARDEN SPECIFICATIONS

<table>
<thead>
<tr>
<th>Light</th>
<th>USDA Hardiness Zone</th>
<th>AHS Heat Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full sun</td>
<td>8</td>
<td>12 – 1</td>
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<table>
<thead>
<tr>
<th>Garden Height</th>
<th>Garden Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frost, Storm, Ultra</td>
<td>12 – 14” (30 – 35 cm)</td>
</tr>
<tr>
<td>PrimeTime</td>
<td>10 – 12” (25 – 30 cm)</td>
</tr>
<tr>
<td>Bravo</td>
<td>10 – 12” (25 – 30 cm)</td>
</tr>
<tr>
<td>Hurrah</td>
<td>8 – 10” (20 – 25 cm)</td>
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</tbody>
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### PETUNIA SCHEDULING IN WEEKS

<table>
<thead>
<tr>
<th>Frost</th>
<th>Storm</th>
<th>Bravo</th>
<th>Ultra</th>
<th>Hurrah</th>
<th>PrimeTime</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total crop time</strong></td>
<td>9 – 11</td>
<td>9 – 11</td>
<td>8 – 11</td>
<td>9 – 11</td>
<td>8 – 11</td>
</tr>
<tr>
<td><strong>‘288’ plug crop time</strong></td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
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<tr>
<td><strong>Transplant to finish crop time</strong></td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
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<tr>
<td><strong>Packs</strong></td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
<td>4 – 5</td>
</tr>
<tr>
<td><strong>4” crop</strong></td>
<td>5 – 6</td>
<td>5 – 6</td>
<td>5 – 6</td>
<td>5 – 6</td>
<td>5 – 6</td>
</tr>
</tbody>
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Note: These suggestions are only guidelines and may have to be altered to meet individual grower’s needs. Check all chemical labels to verify registration for use in your region.