

Begonia Vegetative Sparks Will Fly

(*Begonia x hybrida*)

Propagation

- The day cuttings arrive, stick them in a disinfected propagation area.
- Use a slightly moistened, well-drained, aerated rooting media with a pH of 5.8 to 6.2 and EC of 1.0 to 1.5 mmhos/cm. Use paper or other preformed pots.
- When sticking, avoid direct contact between foliage and soil. Bottom heat is recommended. Media temperature of 72°F (22°C) and air temperature of 68 to 74°F (20 to 23°C) with 70 to 80 percent humidity will ensure quick and uniform rooting.
- Temperatures can be lowered after cuttings are well-rooted, but never let them fall below 58°F (14°C).
- Water cuttings slightly after sticking. Mist 1 to 3 days, avoiding saturating media. Keep cuttings somewhat dry and let wilt slightly between mists. Avoid run-off, which will leach nutrients and may cause fungal problems. If possible, mist by hand only and cover cuttings with cheesecloth.
- Roots should be visible after 9 to 11 days. Total rooting time is 21 to 29 days.
- Water in the morning; excess water will leach nutrients and raise the pH, resulting in nutrition deficiencies.
- Shade cuttings for the first week at 1,500 to 2,000 f.c. (15,000 to 20,000 Lux), which reduces transpiration. Well-established cuttings can tolerate light levels of 2,500 to 3,500 f.c. (25,000 to 35,000 Lux).
- As cuttings root, fertilize at 150 to 200 ppm N using a well-balanced fertilizer, including minor elements. Fertilize in the morning to avoid high salt levels.
- Preventively drench after sticking to reduce Pythium risk. Preventive sprays combined with venting and proper water management help control Botrytis. Pests shouldn't be a problem in a weed-free rooting area. Excessive pesticide use during rooting may result in slow, irregular rooting.
- Using PGRs during rooting will result in a more compact cutting. Spray B-Nine at 1,000 to 1,500 ppm or Cycocel at 250 to 350 ppm before cuttings stretch. Depending on variety and time of year, a second application may be necessary. Florel is not recommended.
- Pinch liner at third node but before fifth node develops.
- Extend daylength to at least 14 hours using HID lights, if possible.

Growing On to Finish

Media

- A pH of 5.8 to 6.2 is optimum.
- Sparks Will Fly begonia prefers a well-drained soil.

Temperature

Night: 55 to 60°F (13 to 16°C)

Day: 65 to 75°F (18 to 24°C)

Crop can be finished cooler in final weeks of production; maintain temps above 55°F (13°C).

- **Light** Sparks Will Fly begonia should be grown under moderate light levels; 3,000 to 4,000 f.c. (30,000 to 40,000 Lux) is the ideal range.
- Plants may scorch under high light and high temperatures. Longer days promote flowering.
- Schedule crops to finish under long days (more than 13 hours).
- Crops produced under short days (less than 12 hours) will result in small plants and poor flowering.

Watering The media should be allowed to dry between waterings. Water stress can be used for growth control, however, periods of sustained wilting should be avoided. Excess water will result in unwanted stretch and disease.

- **Fertilizer** Use a constant liquid feed program of 200 to 300 ppm.
- Sparks Will Fly begonia will benefit from more fertilizer early in production to build a strong plant.
- Regular leaching with clear water will help to reduce buildup of excess salts in media.

Pinching

It is not recommended to pinch Sparks Will Fly begonias.

Controlling Growth

- Maintain recommended temperatures and light levels to avoid stretch.
- Excessive moisture in media will encourage unwanted stretch.
- Water management is an excellent tool in producing high-quality Sparks Will Fly begonias.
- Chemical plant growth regulators are generally not needed. Sparks Will Fly begonia is responsive to B-Nine and B-Nine/Cycocel tank mix for finished production in smaller containers. Begin applications 7 days after transplant.
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions.

Common Problems

Insects: Whitefly, spider mites
Problem: Plant collapse

Causes: Stem canker (Botrytis); Plants grown in saturated soil for extended period of time (Pythium)

Problem: Poor branching, thin plants

Causes: Low fertilization during early stages of growth; Low light; Production under short days (less than 12 hours)

Sparks Will Fly Begonia Crop Schedule & Uses (Crop Schedule In Weeks)

Rooted cuttings:

4-in. (10-cm) Pot 1 PP* = 5-7 weeks

6 to 8-in. (15 to 20-cm) Pot 1 to 2 PP* = 6-8 weeks

10 to 12-in. (25 to 30-cm) Hanging Basket 2 to 3 PP* = 8-11 weeks

*PP: Plants per pot or 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.

