

## Geranium Ivy Focus

(*Pelargonium x peltatum*)

A Ball FloraPlant Product

### Propagation

- Choose a well-drained medium with an EC of 0.75 to 0.80 mmhos and a pH of 5.8 to 6.2.
- Open shipping boxes immediately. Stick cuttings within 12 to 24 hours of arrival. Cuttings can be stored overnight, if necessary, at 45 to 50°F (7 to 10°C).
- A rooting hormone is generally not needed, assuming the environment in propagation is optimized. Should the soil temperature and/or mist coverage not be optimal, a rooting hormone may help promote early, more uniform rooting.
- A protective fungicide application should be made within 24 hours of sticking to reduce the risk of Botrytis.
- Soil temperature should be maintained at 68 to 73°F (20 to 23°C) until roots are visible.
- Begin fertilization with 75 to 100 ppm N when roots become visible. Increase to 150 to 200 ppm N as roots develop.
- As the rooted cuttings develop, high light, appropriate water stress and moderate air temperatures should reduce the need for chemical plant growth regulators (PGRs). Focus Ivy Geraniums are responsive to a B-Nine (1,500 to 2,000 ppm) and Cycocel (750 to 1,000 ppm) tank mix, should PGRs be needed.
- Pinching should not be necessary during propagation. To improve branching and habit, plants can be pinched 7 to 10 days before transplanting.
- Focus Ivy Geranium rooted cuttings should be ready for transplanting 28 to 35 days after sticking.
- Under similar conditions, ivy geraniums generally require 20 to 25% less mist than zonals.

### Growing On to Finish

#### Media

- Use a porous, well-drained, soilless medium.
- Maintain pH between 5.8 and 6.2.

#### Transplanting

- Plant geranium liners so the soil slightly covers the propagation media. This will prevent the rooted cuttings from drying out unexpectedly in the early stages of the crop.
- Ball FloraPlant geraniums are produced in high-light areas and initiate flowers quickly. For the best vegetative growth, remove any flower buds when transplanting rooted cuttings.

- Water plants thoroughly with clear water after transplanting to ensure good contact between the soil and roots.
- Follow initial watering with 225 ppm of a balanced feed later that day or the next morning.

#### Temperature

- **Nights:** 62 to 67°F (17 to 19°C)
- **Days:** 65 to 76°F (18 to 24°C)
- Ivy geraniums do not tolerate high temperatures or temperature extremes. Excessively high day temperatures will slow growth, cause the plants to become hard and brittle and make the plants susceptible to Oedema.

#### Light

- Ivy geraniums require less light than zonal geraniums – 2,500 to 4,000 f.c. (25,000 to 40,000 Lux) is optimum.
- Excessive light will slow growth and harden foliage, which may result in Oedema problems.

#### Watering

- Watering is very critical to successful ivy geranium production.
- Water early in the day to allow the plants to dry out before nightfall.
- Oedema – the corkiness that damages the undersides of the leaves and distorts the physical appearance of the plant – occurs when the plants remain wet during dark, cloudy weather.
- Dramatic swings in soil moisture levels will also contribute to the occurrence of Oedema. Maintain even moisture in the soil throughout the crop cycle.

#### Fertilizer

- Ivy geraniums may require slightly more iron and calcium than zonal geraniums. If iron deficiency is apparent, feed with chelated iron and use calcium nitrate regularly at 150 ppm Ca to supplement your feeding program.
- Feed at the rate of 225 to 300 ppm with a constant feed.
- Leach as needed with clear water.
- Ivy geraniums are sensitive to excess molybdenum, particularly when ammonium forms of fertilizer are used.
- Test soil for soluble salts and pH regularly – particularly in the last half of the production cycle – to determine what elements may be deficient or in excess.

## pH

- Ivy Geraniums require a slightly lower pH than zonal geraniums.
- Maintain pH at 5.8 to 6.2 to maximize iron uptake and overall growth.
- As pH rises above 5.8 to 6.2, plants can begin to show iron deficiency.

## Controlling Growth

- Cycocel can be applied as a spray at the rate of 750 to 1,500 ppm to improve plant habit as needed.
- Bonzi can also be used successfully when applied as a spray at the rate of 1 to 5 ppm.
- In general, more frequent applications of any growth regulator at a lower concentration will always produce the best results.
- These recommendations for plant growth regulators should be used only as general guidelines. Growers must trial all chemicals under their particular conditions.

## Pinching

- Ivy Geraniums do not break well from hard wood.
- Give plants a soft pinch 7 to 14 days after planting, leaving 3 nodes per stem.
- Florel will increase branching significantly, but must be applied once plants are well rooted and no less than 7 to 8 weeks before sale. A range of 200 to 350 ppm should be used. Florel can be applied 1 to 3 times, depending on local conditions and container size at 7 to 10 day intervals.

## Spacing

Start Ivy Geranium hanging baskets on a bench rather than hanging them immediately upon potting, in order to better control temperature and watering.

## Common Problems

Oedema can be a problem with Ivy Geraniums. This physiological problem is caused by an interaction of incorrect watering, light and excessive soft growth. Be sure temperatures are kept below 75°F (24°C), light is reduced to 2,500 to 4,000 f.c. (25,000 to 40,000 Lux), and the plants remain dry during cold, cloudy weather. Keep up iron and calcium levels for best results.

**Insects:** Thrips, spider mites, aphids, fungus gnats, mites.

**Diseases:** Botrytis (gray mold), Pythium, Rhizoctonia, Xanthomonas.

All Focus Ivy Geranium cuttings are derived from culture and virus-indexed stock from the **Ball Certified Plants®** program.



**Problems:** Plant collapse

**Causes:** Botrytis or Rhizoctonia; Saturated soil for extended periods of time (Pythium)

**Problems:** Excess vegetative growth, few flowers

**Causes:** Excessive ammonia in fertilizer; Over-fertilization under low light conditions; Low light and overwatering; wet media

**Problems:** Foliage necrosis

**Causes:** Drying out between waterings; Low pH; High salts

**Problems:** Poor branching, thin plants

**Causes:** Low fertilization in early stages of crop; Low light

## Focus Ivy Geranium Crop Schedule & Uses (Crop Schedule In Weeks)

### Unrooted cuttings

**4-in. (10-cm) Pot 1 PP\*:** 12-15

**6-in. (15-cm) Pot 1 PP\*:** 13-16

**10 to 12-in. (25 to 30-cm) Pots 3 to 5 PP\*:** 15-17

### Rooted cuttings

**4-in. (10-cm) Pot 1 PP\*:** 8-10

**6-in. (15-cm) Pot 1 PP\*:** 9-10

**10 to 12-in. (25 to 30-cm) Pots 3 to 5 PP\*:** 11-13

\*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.

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