

Growing Ivy Geraniums

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Ivy geraniums (*Pelargonium peltatum*) offer a wide variety of colors and growth habits. Variations in foliage color, foliage size, flower color, flower type, and vining and branching habit can be found in the commercially available cultivars. Ivy geraniums can be produced as hanging baskets as well as potted plants for spring sale.

Ivy geraniums require different cultural conditions than the traditional zonal and regal geraniums. Growers attempting to produce all their geraniums under the same environmental conditions often encounter problems with the ivies. The ivy geranium is a native of southern Africa and grows naturally in sheltered locations. Not surprisingly, ivies respond best to moderate light and temperature levels (the type of conditions which might prevail in a sheltered location).

Ivy geraniums can be classified into four general groups:

The Traditional Ivies—have large, thick leaves and large semi-double or double flowers. Flowers are showy but less numerous than other ivies.

The Cascade or Balcony Ivies—have smaller, thinner leaves than traditional ivies. Flowers are usually single and numerous. Plants branch readily. Available in green and variegated-leaved forms, they tend to be more compact than the traditional cultivars.

Minicascades or True Dwarf Forms—similar to the cascades but with dwarf, compact plant habit. Flowers are smaller than the cascades but very prolific.

Ivy-Zonal Hybrids—have flowers and leaves similar to zonal geraniums but with a modified vining growth habit. Flowers are semi-double and flower number is similar to traditional ivies and zonals.

Propagation methods for ivy geraniums are similar to those used for zonals. Shoot tip cuttings are removed from stock plants and rooted. Tip cuttings should be 1 1/2 to 2 1/2 inches in length and have one fully-expanded leaf and two immature leaves. Unlike zonals, low fertility (200 ppm N) beginning with the later stages of propagation will produce the best results (i.e. once cuttings develop an established root system).

As with all geraniums, clean stock plants and strict adherence to sanitary practices are a must for a successful propagation program. Prune and clean stock plants on a weekly basis. Remove large leaves that overlap other leaves, which impede air movement and collect mois-

ture. Also remove flower stems to prevent shattered petals from accumulating on the foliage. These practices are necessary to control oedema and Botrytis blight and also to produce a well-branched, productive stock plant.

Early plantings can be used to produce additional cuttings for later plantings or late plantings can be pinched or treated with plant growth regulators (cycocel) to produce a finished product. It is also possible to produce a quick crop (8 to 9 weeks) using rooted cuttings and a non-pinch program.

Proper control of the growth environment—light, temperature and relative humidity—is the most important factor in producing a quality crop of ivy geraniums with minimum problems (i.e. from oedema). High leaf temperatures caused by high light, temperature and/or RH are associated with an increased incidence of oedema. Moderation is the key word. Ivy geraniums respond best to moderate light (2500 to 4000 f.c.), moderate day-time air temperatures (75° to 85°F) and moderate relative humidity (RH) levels (60% to 70%).

Since light, temperature and RH cannot always be controlled, it is important to limit heat-related stress as best you can. Under high-temperature conditions, pull shade to reduce light levels and vent to reduce RH. Use fan and pad cooling or fog to reduce leaf temperatures when possible. Avoid large variations in temperature from day to nighttime settings. If moderate temperatures (65° to 80°F) are maintained, higher light levels are possible. Finally, use cultivars most tolerant to full sun and high temperatures, if these environmental factors cannot be satisfactorily controlled.

Ivy geraniums favor a lower growth medium pH than zonal geraniums. A pH range of 5.3 to 5.7 (for soilless media) or 5.6 to 6.1 (for media containing 20% to 25% soil) is best.

Ivy geraniums are very sensitive to overwatering. Irrigate in the morning and avoid watering late in the day. Check the root system frequently to monitor disease problems. If ivies are raised in hanging baskets, remove the saucers to increase drainage.

Grow ivy geraniums in well-drained media. Use well-buffered media with high water retention and aeration porosities. Always start with sterile pots, trays, benches and tools. Use only sterile or pasteurized media amendments.

Proper nutrition can minimize oedema and foliar chlorosis. Phosphorous (P), nitrogen (N), magnesium (Mg) and iron (Fe) are the most critical minerals in controlling oedema and chlorosis in ivies. Use a constant liquid feed with 300 to 350 ppm N (i.e. a 15-15-15 formulation). Supplement with epsom salts (magnesium sulfate) at biweekly intervals

(2 lb/100 gallons) and supply additional iron as needed to control chlorosis. Ivy geraniums are sensitive to high salts. Monitor soil fertility conditions and leach plants as needed. A 15% to 20% leach with each feed will control salts. With less leaching, use lower feed levels. Test your media regularly.

Ivy geranium cultivars will vary widely in their susceptibility to oedema, mite resistance and response to plant growth regulators. Use resistant and less susceptible cultivars when mite control or oedema are perennial problems. Test plant growth regulators on a few plants before treating the crop if the response is in doubt.

Ivy geraniums add variety and color to the springtime selection offered in any greenhouse. Under the proper growing conditions, a profitable crop can be produced with a minimum amount of problems.

References:

O'Donovan, E.S. *Ivy Geraniums*. in *Geraniums III*, pp:170-176. Ed. Mastalerz and Holcomb, Pennsylvania Flower Growers, University Park, Pa. 1982.