

Solenia Begonia Culture Tips

Series Overview: The Solenia Begonia series offers easy to produce options that are a comfortable fit with all most all warm climates, high light spring production practices. Additionally, the Solenia Begonias provide some of the highest garden performance in today's market. Solenia Red Improved is offered as an addition for the 2007-2008 season.



Culture – Propagation of Unrooted Cuttings: Solenia Begonias are easy to propagate from unrooted cuttings. They do not require any rooting hormones and should be stuck in a well drained, low EC substrate. Regular timed mist should be applied for the first three to five days of the propagation cycle. At that time, depending on the ambient light and temperature regimes in the greenhouses, the regular timed mist can be eliminated and replaced with “on demand” cycled mist or infrequent syringing of the propagation beds.

Culture – Pot Sizes: Solenia® begonias are perfectly suited for production in commercial forms of 5” or larger. They are an excellent hanging basket, and can be used in larger basket forms (12” or greater) and in combination planters. Production in commercial forms smaller than 5” are very challenging and not a recommended container size given the vigor of this product.

Culture – Light: Unlike other competitive products Solenia® begonias thrive in high light environments. Solenia® begonias will thrive in light intensities up to 5,000 foot-candles in a greenhouse. Solenia® begonias are a day neutral crop, so they will flower on a year round basis. Additional lighting in the initial phases of crop development is very beneficial. Growers can consider using either assimilation lighting for either the entire crop or only for the first four weeks combined with cyclic lighting of 10 minutes per half hour for the balance of the crop. Assimilation lighting should be implemented at the rate of 3.5 watts/sq. ft., with a total day length of 16 to 18 hours. The use of assimilation lighting is especially useful in developing strong vegetative growth during the winter months.

Culture – Temperature: Until the transplants are well rooted, “heat to” temperatures should be maintained at 68° F (day and night). Once plants are well rooted, temperatures can be reduced to 64° F (day and night) for the balance of the growth cycle. For additional plant tone during the last two weeks of the crop cycle, temperatures can be reduced to 58° F. Ventilation should occur when temperatures exceed 75° F.

Solenia Begonia Culture Tips (Continued)

Culture – Transplanting/Pinching: Solenia® begonias should be transplanted into a well drained, low to moderate EC substrate. Cuttings should be transplanted upon receipt or when they have reached maturity in the propagation phase. Cuttings that are held for even short periods of time before transplanting will not branch as freely as product that is handled at the proper maturity. After transplanting plants should be “soft” pinched no later than two weeks after transplanting. The process should leave three (3) to four (4) leaves behind the pinch. The pinch removes any pre-mature bud that may have developed in the apical meristem and the subsequent lateral shoots that are developed under long days or supplemental lighted regimes will provide the vegetative structure for a successfully proportioned plant.

Culture – Fertility: After transplanting and successful rooting out of the original plug, initial feeding practices of 125 ppm N of a Calcium Nitrate should be conducted for one to two weeks. From this point forward until week six (06) of the crop plants should be fed with 150 ppm N of 15-5-15. After week six (06) plants can be fertilized with potassium nitrate or a balanced fertilizer high in potassium. It is important to avoid using fertilizer compounds high in ammonical nitrogen; these fertilizers will provide excessive vegetative growth and softer plants, which may be more problematic in transport.

Culture – Supplemental CO₂: Solenia® begonias will benefit from supplemental injection of CO₂ at the rate of 750 ppm, during the daylight hours of the day. CO₂ injection should start ½ hour prior to sun rise and continue until the first stage of ventilation is required, and at that time the process should be discontinued. Higher rates will promote excess vegetative growth, requiring additional applications of PGRs.

Culture – PGRs: Solenia® begonias are very vigorous growers, and are best suited for use in larger forms. Growth regulation is necessary to recognize the highest quality plants. Cycocel® may be applied at the rate of 750 ppm *ai* on bi-weekly intervals, or Bonzi® may be applied at the rate of 3 to 5 ppm *ai* as a foliar application near the finish of the crop. A negative DIF may also be employed, and the DIF should be managed in the range of 5° to 7° F throughout the crop.

Crop Scheduling

The following table is offered as starting point for scheduling certain popular forms of this product. Realize that the stated times are not absolute and subject to the amount of light, temperature and fertility that the crop may receive.

Container	Plants per Container	Transplant To Pinch	Total Crop Time
5"	1	2 weeks	7 weeks
1 gallon	1	2 weeks	9 weeks
10" hanging basket	3	2 weeks	10 weeks
12" hanging basket	4	2 weeks	12 weeks