

Guardian Delphinium

This series brings earlier, predictable crop scheduling to one of the world's most strikingly beautiful flowers.

By Scott Rusch

People over the centuries have been captivated by the striking blue hues that adorn the towering spikes we refer to as delphinium. One of the traditional problems with growing older types of delphinium is the fact that, like most beauties worthy of the big screen, they would come into bloom when they wanted to and were a nightmare to schedule and handle. The real breakthrough for growers is the fact that F1 hybrid Guardian delphinium is six weeks earlier to flower than open-pollinated types and delivers professional cut flower grower uniformity, making it highly schedulable for perennial or annual color programs.

Guardian is available in Blue, White, Lavender and Early Blue; Early Blue timing is about 10-14 days earlier than the other varieties in the series. They perform well in 1-gal. and larger and can be scheduled to finish with other cool-season crops like snapdragon or dianthus,

creating a well-timed, interesting program of garden-friendly cut flowers for consumers or mid- to tall-height color for landscapers.

GERMINATION

Maintain temperatures of 70-72° F through germination and cotyledon emergence after covering the seed with coarse vermiculite. Delphinium in general does not germinate uniformly; germination over a 3- to 4-day window is common. Chamber germination or relative humidity of 95 percent will provide the best results.

It is beneficial to leave plug trays in the chamber 2-3 days after the first sign of germination for best results. Move trays out of the chamber at the open cotyledon stage. Begin fertilizing at the end of week 3 with 50 ppm nitrogen twice a week; alternate with 14-0-14 and 20-10-20. After one week, increase the nitrogen rate to 100 ppm twice a week until finish. Maintain EC less than 0.75 until week 3. Increase EC to 1.0 until finish for best results. A pH range of 5.8-6.2 is optimal during plug production.

Plugs should be grown cooler one week prior to transplant; daytime temperatures of 65° F and night temperatures of 60° F will adequately tone your plugs.

GROWING ON

Guardian is best suited to 1-gal. production with one plant per pot; 2-gal. and larger containers have a nice presentation with three plugs per pot. One week after transplant, begin fertilizing with 150 ppm nitrogen once a week; night temperatures of 60° F and day temperatures of 65-70° F are optimal. After transplant, the crop should be grown under these greenhouse conditions for 3-4 weeks because delphinium will

flower prematurely under high temperatures, more slowly under cooler temperatures and are most sensitive just after transplant. After a 3- to 4-week period, the crop can be finished outside under cover.

Because Guardians are F1 hybrids, they respond more uniformly to PGRs than other types of delphinium. The finished height in a 1-gal. will be about 24 inches; Bonzi applications at 20 ppm can tone the crop and reduce the height for shipping. Applying Bonzi three times, starting three weeks after transplant, at two-week intervals will give you a tidy, unique flowering pot plant.

SCHEDULING AND FINISHING

Guardian plugs will finish six weeks from sow in a 200-cell plug tray; a 200-cell plug will finish a 1-gal. about 15-16 weeks after transplant, giving you an average crop time of 21-22 weeks from sow to finish.

Routinely scout the crop for Pythium and powdery mildew. Pythium can be a problem just after transplant into the finishing container. Powdery mildew can affect delphinium at any time, so preventative measures should be taken.

Ship Guardian when the spikes are about 1/2 open. The spikes will resist shattering during shipping if they are 1/2 or less open. If the crop is shipped fully open, the risk of shattering will increase. **GPN**

Scott Rusch is product manager at PanAmerican Seed, Santa Paula, Calif. He can be reached by E-mail at srusch@panamseed.com.



Top left: Guardian White. Top right: Guardian Blue. Bottom: Guardian series.

Why Guardian?

Delphinium's height has always meant expensive staking or green sales, but this new series offers an economic opportunity to showcase one of the most popular perennials while it's in color. With heavy PGR application Guardian varieties can be produced for 6-inch container sales and programmed to flower at a desired finish/harvest period for an extended marketing window. Guardian varieties are great multi-use plants perfect for landscape/bedding applications, commercial cut flower production and flowering potted sales.

Guardian varieties can be treated like an F1 hybrid lisianthus or snapdragon and are suitable for greenhouse, tunnel or field production. Plants have mild ethylene sensitivity, so treatment with an ethylene inhibitor prior to shipment will protect flowers and foliage. — **Carrie Burns**

