



Crop	Delphinium
Series	Planet
Botanical name	<i>Delphinium grandiflorum</i>
Plant type	Perennial
Seed type	Raw
Seed count	600 seeds /gr
Germination	15°C - 10-14 days light inhibited
Growing	15-21°C
Optimum pH	5.8-6.2

Plug Culture: 6 weeks (288 cell tray)

Stage 1 (days 1-10) Direct sow seed into a plug trays filled with a well-drained sterile media. Cover the seed lightly with medium vermiculite and keep the temperature between 20-21°C.

Stage 2 (days 11-20) When seedlings begin to emerge apply a light feed of 75-100 ppm nitrogen from a well-balanced calcium nitrate based fertilizer. Place in a cool greenhouse with good air movement and a temperature of 18-20°C. Need light to germination.

Note: High temperatures (excess of 25°C in the plug stage results in poor quality cut flowers on immature plants. Low temperatures (below 10°C) cause plants to rosette.

Note: Delphinium Planet is a facultative long day plant so maintain short days (photoperiod > 12 hours) to maintain vegetative growth.

Stage 3 (days 21-34) The true leaves are beginning to form. Raise the fertilizer rate to 150 ppm nitrogen. Keep the temperature between 18-20°C and provide good air movement to prevent disease. Delphinium is susceptible to both foliar and root diseases (pythium,

rhizoctonia and phytophthora). Allow the media to dry slightly before watering, provide good sanitation and water early in the day.

Stage 4 (days 35-42) The seedlings are now reaching transplant size. Lower the temperature to 15-18°C and increase the light level. Delphinium has a tap root system and delaying transplanting will reduce plant and flower quality.

Transplanting to finish: 16 weeks

Bed Preparation: Select a well-drained bed in full sun with good drainage. Incorporating organic matter into the bed will improve the soil structure and enhance fertility.

Spacing: Space plants 20 cm apart.

Support: Plant support is needed to keep the plants from falling over.

Fertilizer and Watering: The use of a well-balanced calcium nitrate based fertilizer will promote strong and healthy plants. Maintain even moisture and avoid allowing the plants to wilt which damages the root system resulting in poor quality cut flowers.

Temperature: For greenhouse production provide a day temperature between 18-21°C and a night temperature of 13-17°C. The best quality is achieved under cooler conditions.

Light: Delphinium grandiflorum thrives under high light as long as optimum temperatures are maintained. Supplemental lighting is recommended under low light conditions.

Pests: aphids, thrips, and whiteflies

Disease: botrytis, crown rot, powdery mildew

Photoperiod/Flowering: Delphinium Planet is best transplanted under short days (> 12 hours) to build vegetative growth and root development. Then, two to three weeks after transplanting apply long days (>14 hours) to promote stem elongation and reduce crop time. Planet flowers under short day length but the crop time will be longer and the flower stems shorter. Be sure to maintain optimum temperatures.

Crop Timing: In general, Delphinium grandiflorum will flower in 12-14 weeks after transplanting.

Northern Hemisphere Schedule

Treatment	Sow	Plant	First Harvest*
Forcing	Mid-August	Late September	End of December
Natural Season Mild Climate	Mid-September	Late October	Early March
Natural Season Cold Climate	February to March	Mid-March to mid-April	Mid-June to mid July

All information given is intended for general guidance only and may have to be adjusted to meet individual needs. Cultural details are based on Asian conditions such as in Japan and Sakata cannot be held responsible for any crop damage related to the information given herein. Always follow manufacturer's label instructions. Testing a few plants prior to treating the entire crop is best.