// ASIATIC LILY

MATRIX SERIES

FLAMINGO
Holland Inc.

- // Outstanding color selection
- // Variety available for all pot sizes
- // Short grow time
- // Compact
- // Endless combination possibilities

WHERE PASSION COMES TO BLOOM

Buzzer

Golden Matrix

Matrix

Orange Matrix

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Production

Most growers will receive pre-cooled, frozen bulbs packed in peat moss. It is used to help retain bulb moisture, preventing drying during storage and shipping. It is important to gradually defrost bulbs that are frozen and thaw them at 55º-60ºF (13º-16ºC) for several days before potting. Frozen bulbs can be stored for up to two weeks in a cooler at 34º-36º F (1º-2ºC). Warmer storage temperatures and storing them for extended time periods may cause bulbs to sprout prior to planting. As soon as the bulbs have thawed, carefully separate them from the peat moss packaging. It is recommended to submerse the bulbs in water for at least 10 minutes before planting them. Bulb dipping helps to re-hydrate the bulbs, bringing them to a uniform moisture level. Plant immediately after re-hydrating. For container production, the Matrix series is best suited for 1-qt. to 10" (25.5cm) containers. The number of bulbs used depends on the container size, customer specifications, etc. Asiatic lilies perform best when grown in a moist, well-drained, porous growing medium with a slightly acidic pH: 5.8-6.4. Most commercially available peat- or bark-based growing mixes work well, provided there is adequate drainage. Asiatic lily bulbs must be planted deeply with a minimum of 2 inches (5cm) of growing mix above the bulb. There should be a minimum of 1-inch (2.5cm) of growing mix under the bulb. Place the bulb(s) near the center of the pot with the bulb(s) pointed up, not sideways, to help the stems come up near the center. Although some roots grow from the bulb, a majority of the roots develop on the stem between the bulb and the top of the soil surface (stem roots). A proper planting depth is important to provide adequate stem root development, which serves as the primary source of nutrition and moisture uptake as well as supporting and anchoring the plant.

Moisture and Fertilization

During emergence, uniform moisture is important. Watering must be carried out sparingly until they have emerged. The amount of irrigation can be increased when the shoots are 3-6 inches (7.5-15cm) tall, as the stem roots are usually well formed at this time. When providing irrigation, water thoroughly and let them dry out slightly between waterings. Once the flower buds are visible, the growing media should never dry out, as overly dry conditions at this stage could cause the flower buds to abort. Asiatic lilies are light feeders. Early in production, fertility should not be an issue. As they reach 2-3 inches (5-7.5cm) tall, fertilizers can be applied to the crop. Water-soluble fertilizers can be applied as needed using 100- to 150-ppm nitrogen or with a constant liquid fertilization program using rates of 50 to 75-ppm nitrogen with each irrigation. Many growers incorporate time-release fertilizers into the growing medium prior to planting at a rate equivalent to 1 lb. elemental nitrogen per yard of growing medium. Controlled-release fertilizers work rather well for lily crops, as it often takes a couple of weeks for the fertilizer to start releasing. This coincides with the period of time the plants naturally derive their food from the nutrient reservoirs of the bulbs.

Insects and Diseases

Root rots caused by the pathogens Phythium and Rhizoctonia are likely to occur when bulbs are grown under wet conditions. Sound irrigation practices and/or using preventative fungicide drench applications can prevent root roots. Botrytis may occur on dead flower petals and can quickly attack the entire plant. Prevent Botrytis by providing adequate air movement, avoiding overhead irrigation while plants are blooming and watering early in the day. Once the plants are blooming, it is beneficial to apply preventative fungicide applications using chemicals that are effective at controlling Botrytis. Aphids, fungus gnats and shore flies are the insects observed most frequently. Growers should have routine scouting programs to determine the presence of these pests and if and when control strategies are necessary.

Growth Regulation

Depending on the environmental conditions and crop spacing, container growers may need to use PGRs to maintain adequate plant height for shipping and aesthetic purposes. A few of the commercially available PGRs are effective at controlling plant height when applied using the appropriate rates, frequency and timing. Foliar applications using Concise or Sumagic (uniconazole) is recommended at 2 1/2 ppm. This is a northern rate; higher rates may need to be applied in southern locations. It is best to begin PGR applications when the plants reach 2-3 inches (5-7.5cm)high; reapply them if necessary in 7-10 days. Asiatic lilies are particularly sensitive to PGR applications.

Temperature and Scheduling

The main factor influencing proper timing of an Asiatic lily crop is temperature. It is best to force Asiatic lilies at cool temperatures. During emergence, it is important to maintain soil temperatures of 55ºF (13ºC); the air temperature is not important during this stage. After the majority of the lilies have emerged, usually within 2-3 weeks of potting, air temperature becomes more important to control than soil temperature. Following emergence, maintain 24-hour average temperatures at around 60ºF (16ºC). Cooler temperatures dramatically delay crop development, and warmer temperatures hasten development and most often reduce the quality characteristics of the crop. It is recommended growers maintain 50º-55ºF (10º-13ºC) nights and 63º-68ºF (17º-20ºC) days. High daytime temperatures (more than 85ºF or 29ºC) dramatically reduce crop performance and quality characteristics. With most of these cultivars, it takes about 30 days from visible bud to open bloom. Growers can use this rule of thumb as a guideline to help determine if the temperatures need to be increased or decreased. To dramatically increase the flowering duration and shelf life of this crop, I recommend applying 100 ppm of the plant growth regulator Fascination (benzyl adenine + gibberellins) to the lily crop just as the first flowers are beginning to show color. This application has been shown to extend the length of bloom and shelf life from 7 to 21 days.

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