

Growing Lilies: Master Class

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Most Common Lilies in the Floral Industry

- **Oriental Hybrids** The 'Stargazer types' are the most popular Oriental lily. Available in single and double flowering forms, and new pollen-free varieties.
- **OT Hybrids** Oriental lilies crossed with tetraploid lilies. OTs have impressively large, fragrant, and long-lasting blooms.



Oriental Hybrid



OT Hybrid

Most Common Lilies in the Floral Industry

- **Asiatic Hybrids** are well known in the trade. They are easy to grow, not fragrant & have a high bud count.
- **LA Hybrids** are Asiatic lilies crossed with *Lilium longiflorum*. Because they generally outperform Asiatic lilies, LA lilies have replaced most Asiatic lilies. LA hybrids are perfect for customers who are sensitive to strong fragrance but want color options, long vase life, and upward-facing flowers.



Asiatic Hybrid



LA Hybrid

Ordering

- Meeting a minimum order can be challenging for small operations. Luckily, many growers offer assorted units of 400 bulbs in 12 or more different varieties that will bloom in succession.
- Ask your supplier about creating an assortment of pre-chilled, ready-to-plant bulbs that will bloom in succession for three to four weeks.



Ordering

Lilies are typically packed:

- 400 bulbs in size 12/14*
- 300 size 14/16*
- 200 size 16/18*
- 150 size 18/20*

*Size = bulb circumference in centimeters

• Lilies are stored frozen and are kept in these conditions until they are shipped out to customers to delay sprouting.

- [Visit Flowerbulb.eu to find your lily supplier!](https://www.flowerbulb.eu)



Lily Bulbs from the Southern Hemisphere

- Need lilies for early spring? Ask your supplier about bulbs from the southern hemisphere. They make it possible to grow a lily crop just in time for Mother's Day.
- A Mother's Day crop of Orientals could take up to 18 weeks to grow which means only long-stored Dutch bulbs could be used. But, they can't handle the short days and cold as well as the Southern Hemisphere grown bulbs.



“We Fake Winter, You Fake Spring”

- Ordering frozen bulbs fakes the winter deep freeze, giving the bulbs the time they need to chill before growing.
- Once planted, grow them under shade cloth to simulate the shorter days of spring. Stem roots are the most important part of the lily, which develop after planting. A cool, slow start will give the plant a chance to develop a strong root system. Rapid growth may cause a plant to starve because it does not have the roots to absorb nutrients.
- Stem roots are just below the surface, so moist and cool conditions are critical and can be maintained with heavy shade cloth.

Box Cultivation

Most lily growers use standardized box/crate cultivation, as it enables efficient, large-scale production of lilies.

Advantages:

- Easy planting with a planting line
- Pre-rooting indoors boosts root development
- Faster greenhouse cycles due to reduced forcing time
- Improved consistency and flower quality, especially with pre-rooting
- Create ideal growing media (coco fiber, wood fiber or any other soil mix)
- Mitigate disease spread
- Faster rotation & higher production with later soil disinfection
- Simplified weed control

Disadvantages:

- Labor intensive
- Extra expense for planting medium



Pre-Rooting Method

- After planting the lilies in boxes, boxes may be palletized and stored in a refrigerated cooler, reefer truck, warehouse, or shade structure. The ideal storage temperature is 50–52°F.
- Slowing the sprout of the bulb will aid root development because at 50–52°F, roots develop faster than the sprouts.
- Your bulb supplier can deliver your bulbs frozen.



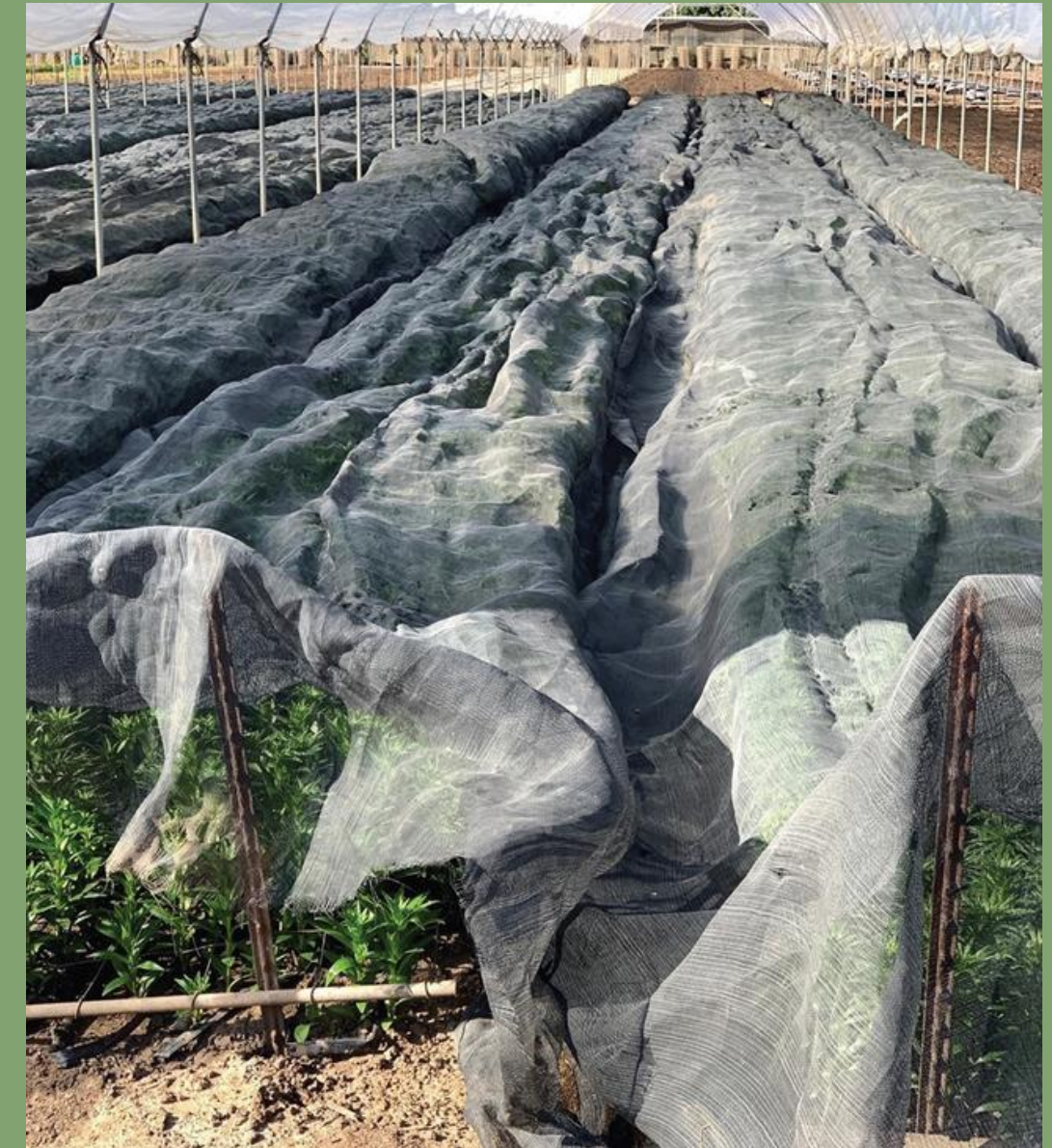
When the Bulbs Arrive

- Once the bulbs arrive, open the plastic bags to avoid ethylene damage. When they arrive frozen, store the bulbs at around 40°F for up to 4 days to defrost before planting.
- Ensure the bulbs and roots do not dry out before planting.
- Planting density depends on soil type, season, and bulb size. Consult your bulb supplier for help if needed.
- In general, plant LAs (size 12/14) 5" apart. Orientals and OTs (size 16/18) should be planted 6" apart.



Outdoor Cultivation

- LA Hybrids are easily grown outdoors and more prone to perennialize. In some circumstances, though, it is more economical to replace old bulbs with new ones.
- The time to plant outdoors is after the potential for frost has passed. The latest time to plant depends on the region's climate during the growing season.
- Raised beds are recommended. Ensure bulbs are planted 4" deep and cover with shade cloth for the first 4–5 weeks.
- Complete harvest before the average temperature drops for an extended period of time measuring below 52°F for Oriental and OT lilies and 42°F for LA hybrids.
- When growing in polyhouses, provide sufficient air flow.



Harvesting

- Harvest lilies when the first few buds show color and look puffy but have not opened.
- When bunching the lilies, remove the leaves from the bottom 4" of the stems. It is good hygiene to not have leaves in the water during storage.
- Immediately after bunching, store the lilies in water in a cooler set between 35°F to 41°F. Ship flowers chilled in boxes or in water.
- Stamens can easily be removed as the buds open, as they do not give off pollen at this stage. Later, when pollen does fall, it can be brushed off but do not use water to remove the stain or it will set.



Production Notes

- Oriental lilies grow slowly, OT's are faster. Both are scented.
- OTs perform best in summer due to sturdier root systems.
- Asiatic and LA Hybrid lilies grow relatively quickly and are unscented.
- Lilies are perennial and will regrow. However, Orientals do not regrow consistently once the stem is cut.
- LAs require the least amount of winter chill and are considered perennial even in some southern states.



Get Growing!

- Visit [Flowerbulb.eu](https://www.flowerbulb.eu) to find your lily bulb supplier.
- Visit [Flowerbulbs.com](https://www.flowerbulbs.com) on Facebook & [Flowerbulbs.com](https://www.flowerbulbs.com) on Instagram for design inspiration and education.

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