

## LILIES FOR CUT FLOWERS CULTIVATION GUIDE

### The Start.

#### Receiving Lilies

The bulbs received by you are in frozen condition or recently defrosted. Zabo Plant BV already does the cooling treatment to ready the lily bulb for planting.

when you receive the bulbs in frozen condition:

Open the plastic liner in the black plastic tray with the bulbs and peat mix. Restack the trays to defrost them as even as possible. Let them defrost in a shaded location at about 50 F., never warmer than 60 F. Prevent exposing the bulbs in full sun! Plant the lily bulbs as soon as possible after they defrosted, plant the bulbs. Always prevent the bulbs from drying out. Lay a wet burlap bag over the bulbs at break time to avoid the bulbs and bulb roots drying out. Do not freeze the lily bulbs again after defrosting.

#### USEFUL POINTS

##### FLOWER BUDS AND STEM ROOTS

Inside the lily bulb, the plant is close to completely initiated. After planting the bulbs, the flower buds start to form. The Lily is one of the few ornamental plants that make new (stem) roots. The Lily needs these roots for optimal growth and flower bud development. Well-developed stem roots are fundamental to grow a quality Lily stem. Use clean, sterilized black plastic lily trays as growing containers. No liner in the plastic tray is needed to have good drainage. Put Three inches of moist planting mix in the bulb tray, plant the bulbs carefully, do not damaging the bulb or the roots while planting the bulbs, fifteen per tray, fill the tray to the brim with planting mix. Soaking the planted lily tray two times with cool water is essential for good planting mix contact with the planted lily bulb. The number of flower buds that the Lily will eventually have depends on the growing conditions of the first two weeks after planting the bulbs. Leave the planted bulb trays in a ventilated location where the temperature is around 50 F. For the first two weeks, the planted trays need no water. Move the planted lily trays to the greenhouse or outside in a 30 % shaded location when the Lily sprouts become visible and start sticking out of the planting mix.

##### PLANTING MIX

The planting mix should hold moisture sufficiently but is still airy. (Peat mix, Coconut fiber) A PH between 5.5 and 6.5. Fertilize direct feed 100 ppm balanced NPK with trace elements.1.5 EC fertilizer or lower. Or mix 35 to 50 ounces per 10 square foot Osmocote 14-14-14 with trace elements. Keep the planting mix moist on the dry side until the buds become visible. Increase watering when the buds become visible. Check the moisture level in the plastic trays every day to prevent dry patches.

##### IRRIGATION AND SUPPORT

Place two plastic pre-grown Lily bulb trays just starting to sprout in the greenhouse or outside in a 30 to 50% shaded area. On a cement or well-drained gravel floor. Place the trays rectangular. Roll out six drip tapes spread out equally for even watering. Use sturdy support stakes on all corners and every eight-foot to support your lily stem support. ( mum support )

## **CLIMATE CONTROL**

The temperature in the greenhouse can fluctuate from 55 to 75 F. check for good ventilation and air circulation. Give the Lily as much light (sun) as possible (minimum light requirements: 2500 - 3000 foot candles). Use Shade cloth of 30 to 50 % for summer temperatures of over 75 F to keep the crop growing and healthy.

## **DISEASES AND PESTS**

### **BOTRYTIS**

What do you see? The foliage on both sides shows brown spots, which can increase quickly. Flower buds can show brown spots on the outer flower pedals. Botrytis is a fungus. What can you do about it? Water mornings and space the trays so the crop can dry during the daytime. Use fresh growing mix. Arrange for good air circulation.

## **INSECTS**

Aphids or thrips use proven organic insect control to prevent crop damage.

## **DELIVER AND POST-HARVEST**

Cut the lily stem when the first (bottom) flower buds start puffy and show color. Showing good color on the bottom buds is essential for the overall presentation in the marketplace. Don't let the flower open. Lilies bunches of ten or five stems per are the norm. Each stem with an equal number of buds. Use plastic or paper sleeves for protection and presentation. Three buds per stem are usually first grade. Handel the bunches with care to prevent damage. The best harvest time is early morning, when the temperatures are still low. Prevent significant temperature differences while bringing the flowers to your warehouse or flower cooler. The best flower storage temperature is 38 F in buckets with cold water for at least four hours. When in summer heat cool the flowers in buckets gradually in a shady spot in the warehouse with a light fan to cool the Lily stem gradually before placing them in the 38 F cooler.

For questions, call 617-901-8559. I will do my best to give you all the information you need to make your lily crop the best possible. Ben D Kneppers, Zabo Plant BV.

**Ben D Kneppers**

**Zabo Plant Inc**

