

## Dahlia, Gladiolus, and Lilies

**Unpack your products immediately upon arrival.** Should any product be damaged, please take photographs and notify Harris Seeds immediately. *Claims must be received within 72 hours of receipt of product and photographs of all damaged product is required.*

### Dahlia

#### Receiving

Open bags and boxes upon arrival. Store tubers in a cool, 50-60 degree area, with bags open until planting. Plant a few weeks after the last spring frost when the ground has warmed up a bit. Cold, wet soil can cause tubers to rot. Plant in full sun. Dahlias in shade will not bloom reliably.

#### Planting

Plant so the old stem is just below the surface, with tubers spread out horizontal or slightly downward. Tubers may be divided if multiple “eyes” are visible. Each eye must have a tuber firmly attached to grow properly. If in doubt, don’t divide. Tubers held on “by a thread” are not viable. If dividing, allow divided tubers to sit for several days so the cuts can dry and heal over. Water well when planting, then sparingly until they have sprouted. Once the plants are 12” tall, water more frequently. When plants are 2-3’ tall, they may need deep, thorough watering several times a week if there is not sufficient rain. Drip irrigation is best.

#### Fertilizing

Use a lower nitrogen fertilizer, such as 5-10-10. Too much nitrogen will produce weak stems, and fewer flowers.

#### Support

Support is recommended. Either stake individual plants, or use horizontal support netting 12-18” off the ground. Plants tip over at ground level, not higher up on the plant. One layer of netting, securely fastened, is all that is needed.

#### Harvest

Harvest when flowers are half to fully open. Use clean buckets, and clean water. Use a floral holding solution or chlorine tablet to help keep the water clean. Store in the cooler no more than a few days. Dahlia vase life may be shorter than other flowers. Use freshly cut dahlias in arrangements.

Cutting tall stems that include side shoots will cause more tall stems to grow. Cutting short stems will produce more short stems.

#### Storage

Tubers may be left in the ground in zone 8-9, or dug and stored in colder areas. Dig after the tops have been killed back by frost. Dig, clean, and then air dry tubers for several days. Store in a cool, dry area that does not freeze.

### Gladiolus

#### Storage Before Planting

If the corms are received before outdoor planting time, spread them out in a cool, dry area with good air circulation.

#### Growing Tips

Gladiolus produce beautiful cut flowers in late summer and may be grown in well-drained soil in a sunny location. The addition of a complete fertilizer such as “5-10-5” (at the rate of 3 to 5 pounds per 100 ft. of row) is beneficial, however do not place it in direct contact with the corms. They may be planted directly outdoors as soon as danger of frost is past, and successive plantings may be made to lengthen the flowering season. Space

## Gladiolus (cont.)

them about 4 inches apart in rows about 18 to 30 inches apart for easy cultivation. Plant 4 inches deep in heavy soil and 5 inches deep in lighter soil, covering the corms with 2 inches of soil at first, gradually filling in the trench as the plants grow. When cutting the flower spikes, 4 or 5 leaves should be cut to make food for new “cormels” (small corms). Use a sharp knife and a downward cutting stroke to avoid loosening of the corm. Beginning with the 3-4 leaf stage, deep watering is recommended at least once per week, unless there is an inch of rain.

### Succession Planting

For blooms all summer, succession plant every 14 days with the last planting 90 days before your average first frost.

### Insects/Diseases

Our corms have not been treated for insect or disease infestation (after field digging in the production area) and may be treated before planting if desired. Please check with a local source for a “gladiolus dust.” (combination of insecticide and fungicide).

### Spray Program Recommendation

After planting, we recommend a spray program with an insecticide recommended for thrip control (see description below) at approximate two week intervals during the growing season. Unless a regular spray program is maintained, insect infestation can readily occur on gladiolus from pests from neighboring plants.

### Thrips

Thrips are among the most common of insect pests occurring on gladiolus. These small insects bore within the leaves, causing silvery streaks on the leaves. The leaves then turn brown and die, due to the loss of life-sustaining sap. Flowers may not form, or if they do, may be deformed, and discolored with whitish streaks and flecks.

### Other Insects

Aphids, tarnished plant bugs and red spiders are other insects that sometimes infest gladiolus.

## Lily

### Storage Before Planting

Programmed lilies are stored frozen and can be planted year round. Frozen lilies thaw out during shipping and must be planted soon after arrival. Lily bulbs may be stored in a cooler for no longer than a few days. If sprouts start to appear, plant immediately.

### Planting

Outdoor planting can begin a couple of weeks before the last frost date in spring. Lilies that are just starting to sprout can take a light frost if the leaves have not begun to unfurl. Lilies may be planted in the field, in ground beds, or crates in tunnels and greenhouses, and must be protected from deer damage.

Plant with 4-5” of soil over the bulb. Roots that form on the stem above the bulb are important for quality cut flowers. Plant up to 20 bulbs per bulb crate, or every 6-9” in the field. Water well when planting, then only water after they have sprouted. If growing in crates, it is advisable to grow them in a cool area for several weeks before putting them in the greenhouse or tunnel. This allows for better root growth.

### Planting

Use a balanced fertilizer that includes calcium nitrate for stronger stem growth. After buds have formed, be sure they get sufficient water. In a warm greenhouse or tunnel, daily watering may be needed for crate grown lilies. Water the soil, not the plants. Keep the leaves and flowers dry.

### Protected Culture

50% shade cloth is recommended for summertime greenhouse or tunnel growing. 50% shade can also be used for outdoor growing.

### Disease

Botrytis can occur during extended periods of rain and humidity. Be sure the plants have good air circulation and that the leaves don't stay wet for extended periods.

### Harvest

Pick and sell lilies in bud stage. Harvest when the largest bud is about to open. Cut lilies early in the day. Avoid picking in the heat of the day. Don't put “just-picked” lilies (especially Oriental varieties) from a hot greenhouse or tunnel directly into a cold cooler. Cool them down slowly to prevent damage from rapid cooling. Store in a 34-38 degree cooler.

### Overwintering

Field planted lilies may overwinter and produce stems with fewer buds the second year, but flowers are often good for use in mixed bouquets.