

Horticulture Diagnostic Laboratory



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Summer Flowering Bulbs

Summer flowering bulbs are relatively easy to grow, and many grow well on Long Island. Most of them are grown for their flowers, some for their foliage. Some of the more commonly grown summer flowering bulbs grown are begonia, caladium, calla, canna, dahlia, daylily, gladiolus, iris and peonies. For information on growing iris and peonies visit the [Cornell Cooperative Extension – Suffolk County web site](#).

Some bulbs may be grown as pot plants, some as pot or garden plants, and others as garden plants only. In the garden, various kinds of bulbs may be used as foundation plantings, as borders, in front of shrubs, or in groups for masses of color.

To grow summer flowering bulbs successfully: Select healthy, mature bulbs and store them in a cool, dry place until planting time; have your soil tested beforehand and prepare the soil in the planting site thoroughly based on the test results; plant at depths, distances apart, and planting times recommended for each kind of bulb; water the plants at regular intervals. Contact Cornell Cooperative Extension - Suffolk County for information on having your soil tested.

Plants listed in this leaflet include some that grow from corms and tubers as well as those that grow from bulbs. Corms, tubers, and bulbs store food for the growing plants. All references to bulbs also include corms and tubers.

Site

Most of the bulbs require a well drained soil. Most will not tolerate wet, soggy soil conditions. Avoid sites which allow water to stand on the surface. Begonia and caladium will need a lightly shaded site. Calla, canna, dahlia, daylily and gladiolus are best grown in sites receiving full sun all day.

Soil Preparation

A well prepared soil allows the bulbs to grow vigorously during the growing season. This is important for current seasons flowers as well as future seasons flowers since vigorous plants will produce adequate food which will be stored in the bulbs over the winter.

Organic matter, such as compost, well-rotted manure or peat moss can be added to “heavy” or sandy soils to improve their physical structure. Use 3 bushels of compost or peat moss or 2 bushels of manure per 100 square feet. This should be rototilled or spaded into the top 8 inches of soil.

Limestone should be added to the soil based on soil test results for accuracy. Most bulbs grow best in a soil with a pH of 6.0 or slightly higher (this is slightly acid soil).

Fertilizer should be added based on soil test results. Side dressings of fertilizer can be added during the growing season depending on plant vigor.

Time of Planting

The summer flowering bulbs mentioned in this leaflet are best planted in the spring, usually after the danger of frost has passed. Some bulbs such as begonia and caladium are planted indoors in flats of peat moss and coarse sand in February or March. These are later moved outdoors after the danger of frost has passed in the spring.

Special Considerations

Begonia

Plant the tubers in February or March in flats indoors. Use a mixture of peat moss and coarse sand. Press the tubers into the mixture; make sure the “growing eyes” are upward. Space them 2-3 inches apart.

They are kept in a dark room at 65° F. Water the tubers often enough to keep the mixture damp. When pink shoots appear, add ½ inch of the mixture over the tubers and move them to a lighted room that is kept at a minimum of 65° F.

In 6 weeks after you put the plants in a lighted room, transfer them to 5 - to 6 - inch pots or plant them in soil outdoors (if all danger of frost has passed). Water them often enough to keep the soil moist. Water early in the day so the flowers and leaves will dry quickly; they rot easily.

When the leaves turn yellow in the late summer or early autumn, dig the tubers from the outdoor soil. The potted tubers can be stored in their pots. Leave the soil on the dug tubers. Store the tubers in a cool, dry place away from freezing temperatures. Start the growing cycle again the following February or March.

Caladium

Plant the tubers close together in a flat from January to mid-May. Use a mixture of peat moss and coarse sand. Cover the planted tubers with a 1-inch layer of peat moss.

Water the tubers often enough to keep the soil mixture damp. Roots grow from the tops of the tubers; they must be kept moist and covered with peat moss. Keep the room temperature no lower than 70° F. Tubers often rot in cool soil.

As soon as roots develop, replant the tubers of elephant's ear into tubs, boxes or outdoor soil (as long as all danger of frost has passed); replant the tubers of other varieties in 6-inch pots or outdoor soil (as long as all danger of frost has passed). Try to balance the amount of sunlight they receive. Direct sunlight can burn leaves; deep shade will cause the leaves to be greener, with less pink and red coloring.

When the leaves turn yellow in late summer or early autumn (before frost), dig the tubers from the outdoors and store them with the soil around them. Store potted tubers in the pots. Keep the storage area dry and at no less than 60° F. Start the growing cycle again next year.

Canna

Plant rhizomes (underground stems) from March to May in flats filled with peat moss. Cover the rhizomes with 1-inch of peat moss and water them often enough to keep the peat moss damp.

When shoots appear, replant the rhizomes in 4-inch pots. Use a mixture of equal parts of well drained garden soil, peat moss and coarse sand. Leave the pot plants indoors until all danger of frost has passed. Then plant them outside in full sunshine.

Water the plants at 2 week intervals (or as needed) throughout the growing season.

After the first light frost in early autumn, cut off the stems of the plants. Then dig the rhizome clumps and let them dry. Store them with the soil around them away from freezing temperatures. If your storage conditions are dry, embed the rhizomes in flats of dried peat moss for the winter. The next spring, clean the rhizomes and start the growing cycle again.

Dahlia

Plant roots outdoors as soon as the danger of frost has passed. Choose a site which receives at least 6 hours of continuous, direct sunlight. Dig a hole 6- to 8-inches deep and large enough to accommodate the root. Put the root in the hole and place a stake directly alongside. All dahlias should be staked, except for dwarf varieties. You should place stakes at planting time, because driving a stake later on could injure developing root systems. Stakes should be 3- to 6-feet above ground, the height depending on the variety of dahlia grown.

Cover the root with 2- to 3-inches of soil. As growth develops add soil around the plant until the surface is level or slightly mounded. Keep the soil loose over the root - do not over firm soil. This can cause crusting of the soil, which can prevent the sprouts from emerging.

Water often enough to prevent the soil from drying out. To help prevent powdery mildew disease, always soak the soil thoroughly around the base of the plant in preference to sprinkling the foliage, otherwise water early in the day so the foliage will dry quickly.

When plants reach about a foot in height and display 3 or 4 pairs of leaves, break off the center stem above the top pair. This encourages strong side branching. One pinching is enough for larger dahlias; an additional pinching will be necessary for smaller plants.

To insure an upright plant with straight branches, tie it loosely to the stake you placed at planting time.

If you want to increase the size of the blossoms, remove the lateral buds (from larger-flowered varieties only). When the 3 buds that form at the end of each branch reach the size of small peas, remove the two side buds. Dead flowers should be removed.

Gently lift the clump of roots in autumn and store them during the winter in a cool, dry place, in which the temperature does not drop to 32° F. or lower.

The following spring divide the clumps carefully with a sharp knife. Be sure that a piece of the crown with an eye is connected to each root. Roots without eyes will not grow and should be discarded.

Daylily (Hemerocallis spp.)

Plant the tubers just below the surface of the soil preferably in early spring or late summer. Space the plants 18-24 inches apart depending on varieties and sizes.

Daylilies grow best in full sunlight. Water often enough to keep the soil moist for best growth. Remove the seed pods and flower stalks after flowering. Leave the tubers in the ground year round until they become crowded (usually every 3 to 4 years). At that time they can be dug up and the tubers separated (divided) and replanted.

Gladiolus

Plant the gladiolus bulbs in rows 36 inches wide or in flower-beds. It is best to prepare the planting site a year in advance if possible.

Start planting bulbs as soon as the soil is dry enough to work in the spring (April). Plant the bulbs 4- to 7-inches deep and 6- to 8-inches apart (depending on bulb size). Continue planting every 7- to 10-days until early July; this assures a continuous supply of flowers.

Dig the bulbs 6- to 8-weeks after flowering on a sunny day when the soil is fairly dry. Loosen the soil with a spading fork, grasp the top of the plant, and remove the entire plant. Shake off most of the soil, doing it gently if you want to save the small bulbs (cormels). Break off the tops close to the bulb and let the bulb fall into a tray or basket. Discard any bulbs which are rotted or otherwise unhealthy.

Place the bulbs on a cloth or burlap and leave them in the bright sunlight for a day. This allows them to dry and hastens curing. After the bulbs are dried, sift out the excess soil and place the corms in wooden flats or boxes. Trays with wire-screen bottoms are the most satisfactory.

Cure the bulbs by placing them in a well ventilated location for about 3 weeks. High temperatures (80° to 85° F.) hasten curing and hinder disease development. After curing break off the bulb at the base of the new ones and discard these. You can save the small cormels and plant these in the spring if you choose. It may take a season or two for them to develop into large bulbs, but this is good way to increase the number of bulbs you have.

Store the bulbs in any container that allows for good ventilation (i.e. paper boxes, open paper bags, cloth bags, or wooden trays with screen bottoms). Bulbs are best stored at 35° to 40° F. Avoid higher temperatures, especially late in the storage period, to prevent multiplication of thrips and premature sprouting. Keep storage temperatures above freezing.

Resource: *Summer Flowering Bulbs*, Home and Garden Bulletin #151, USDA, 8/68; *Growing Dahlias*, Home and Garden Bulletin #131, USDA, 4/72; *Gladiolus in the Home Garden*, IB102, An Extension Publication of the N.Y.S. College of Agriculture and Life Sciences, Cornell University, 6/76.

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