

HOME GROUNDS FACT SHEET



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Daylilies

by Leslie B. Hegeman, Past President, Long Island Daylily Society

What Is A Daylily?

The modern hybrid daylily is a highly evolved flowering plant. Its ancestors were native species of the temperate parts of China and Japan. Some growers still collect and grow species daylilies either for historical, botanical or breeding purposes. Modern hybrids have come a long way from the common species daylilies brought to America, *Hemerocallis fulva* (the "roadside" daylily) and *Hemerocallis lilio-asphodelus* (the Lemon Lily) of early 20th century gardens.

The daylily is a member of the lily family, but it is not a lily. Its botanical name is *Hemerocallis*, derived from two Greek words meaning "beauty" and "day," or beauty for a day. This phrase is somewhat misleading, however. Individual flowers generally open for only a day, but there are successive flowers for a number of days during the bloom season. Thus, the daylily is a valuable perennial for its long periods of bloom (usually 3-6 weeks) during the late spring and summer.

Characteristically, daylilies are herbaceous plants having fibrous and spindle-shaped tuberous roots. The typical plant consists of 3 major growing parts:

- **Roots:** Finger-like in appearance, varying in size from tiny and thread-like to large, rounded, fleshy.
- **Crown:** The growing junction where the roots and leaves join. It is where the scapes (stems for supporting the flowers) and blooms form for each flowering season.
- **Foliage:** The narrow, heavily-ribbed leaves are long and two-ranked, forming more or less regular fans. (Plants really look like fans as they grow.)

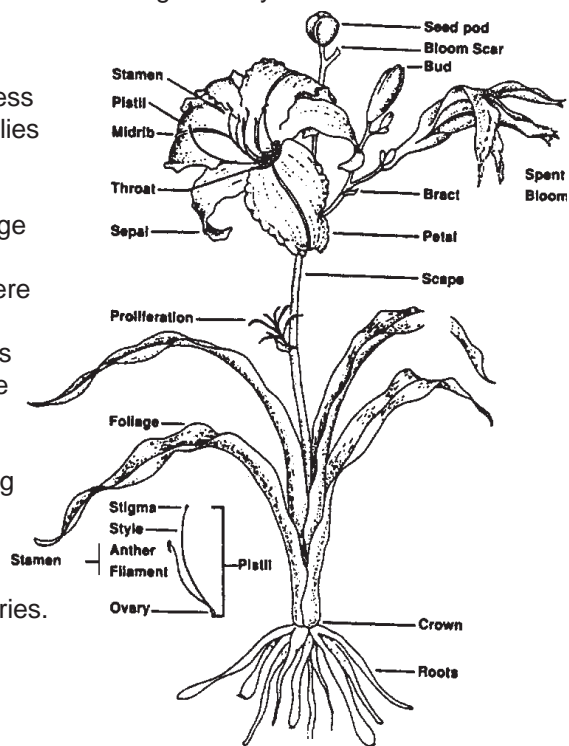
Types of Daylilies

Daylilies have 3 types of foliage habit:

- **Dormant or deciduous:** These daylilies lose their leaves completely after frost. In the spring, new foliage appears. This type is the most hardy.
- **Evergreen:** These daylilies retain their foliage throughout the year. This type is frequently the least hardy in the north and usually requires a winter mulch.

- **Semi-Evergreen:** These daylilies' foliage dies back part way during the winter. They are hybrids of dormant and evergreen daylilies.

Winter hardiness in daylilies is not tied to foliage habit, and there are daylilies that are winter hardy on Long Island in all three categories.



Flowers

Daylily flowers vary in size from under 2" through over 8" in diameter. Height usually varies from under 12" for miniature flowers to over 4' for large flowers. Most large-flowered daylily heights are between 24" and 36".

The natural daylily colors, as found in the species, were shades of yellow, orange and fulvus (a blend of orange-yellow-red). Modern daylily breeders have succeeded in producing daylilies in almost every color except pure white and true blue.

Flower shape varies from triangular, rounded, star-shaped, spider-like (long narrow petals), recurved (petals roll back), trumpet (form of the true lily), or double (having more than 6 segments, like a carnation or a double azalea).

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The Main Types of Daylily Flowers

Art by Dee Whitton



Recurved flowers have the ends of the segments tucked under.



A *double* flowered daylily is formed when the sexual parts are manifest as an extra set of petals.



A *triangular* flower is formed when petals extend fully but the sepals curve under.



When both petals and sepals show no tendency to curl, the flower is call "*flat*."



A *spider* flower resembles the insect. The tips may be curled slightly under.



Pinched flowers appear to have the ends of the segments pinched together.

Blooming Periods

Modern daylilies bloom here on Long Island from late May to frost. Most, however, bloom in July. The period of bloom for most daylilies is from 3-6 weeks. Some daylilies bloom more than 1 time and are known as "rebloomers."

Tetraploids

Modern daylilies are either diploid or tetraploid. This characteristic refers to the number of sets of chromosomes per cell in a plant. Most daylilies, as hybridized from the species, are the "normal" diploid type, having 2 sets of 11 chromosomes, or 22 chromosomes per cell. In the early 1950's, scientists using colchicine, an alkaloid derived from the autumn crocus (*Colchicum autumnale*), developed the first tetraploid daylilies. These daylilies had double the number of chromosomes of diploids. Tetraploid daylilies had somewhat larger flowers with more intense color, heavier foliage and sturdier flower scapes, as well as greater vegetative vigor in leaf, flower and stem.

Growing Conditions

Modern hybrid daylilies grow best in full sun. They will tolerate some shade, such as an east or west exposure. They do not do well under large trees with shallow roots because they have to compete with the tree roots and get insufficient light. Many garden catalogs advise that daylilies grow and flower in sun or light shade. Many people interpret this as full shade, which is incorrect.

Daylilies grow in any good garden soil that has plenty of humus or peat moss added and mixed in well. Daylilies seem to do best in slightly acid, well-drained soil that has been cultivated deeply. Their roots grow quite deep, enabling them to withstand drought. They do best, however, when well-irrigated. This results in healthier foliage and larger flowers.

Daylilies are best fertilized in early spring, using good garden fertilizer. The amount used is a function of your particular garden's need, as determined by soil test. Daylilies do well with the normal 5-10-5 garden fertilizer. Apply in early spring and late fall.

Mulching can be used if you desire. It helps keep the soil moist, discourages weeds and makes the flower beds more attractive.

Planting Daylilies

Daylilies may be planted anytime from spring through fall. The best time here on Long Island is either late April to early May or late August or September after the bloom season. Try to finish your planting in the fall by mid-September. If you must plant in October, mulch the new plants to prevent heaving during the winter when the ground alternately freezes and thaws.

When planting daylilies, make sure you dig a hole at least a foot deep and wide enough to allow the roots to spread out. We usually add a handful of compost and bone meal or superphosphate and mix it in well in the bottom of the hole as we plant each plant. Also, water each plant in well to make sure no air pockets are left around the roots. Daylilies may be spaced between 18" and 3' apart, depending on cultivar size. Some daylilies grow faster than others, and if planted too closely together, they become crowded.

All cultivars registered with the American Hemerocallis Society (AHS) are given names. We identify each one with a label placed behind each clump. We also mapped our entire garden to identify our daylilies and companion plants in the event some labels are accidentally pulled out.

Dividing Daylilies

After 3-5 years, you'll find that your daylilies have formed fairly large clumps and are quite crowded. The number of flower scapes, particularly in the middle of the clump, diminishes because the center plants cannot get sufficient nourishment. The clump should be split. The best time to split daylily clumps is in August, after they have finished blooming.

To divide a clump, lift it carefully out of the ground. Use a spading fork to loosen the soil around the outer roots and slowly lift the clump to break as few roots as possible. A shovel or spade can be used, but you will probably cut more roots that way. After the clump has been dug out, loosen as much soil as possible from around and under the roots. Use a hose to wash away the soil. This will greatly facilitate the job of separating the plants. Overgrown clumps may be separated easily by inserting two spading forks, back to back, through the center of the clump and gently prying the forks apart. Replant 6" or 8" apart in squares or triangles.



A mature clump of daylilies may be divided by digging it up and separating individual fans. Newly divided plants will often bloom within a few months of planting. You can divide any time of the year—but be sure it's at least a month before the first hard freeze.

Integrated Pest Management (IPM)

Considerations

IPM is a common sense approach to pest control and plant care. It employs a number of measures to prevent, control or reduce plant problems. These include using resistant plant varieties, proper plant selection and placement, good aftercare and biological and/or mechanical controls. As a last resort, after all other remedies have been explored, a pesticide* that is least toxic to people and natural predators, can be considered. Prior to using any pesticides, plants should always be monitored for the degree of infestation and a sensible control measure considered.

* A pesticide is a substance that kills, or attempts to kill, a particular pest, e.g. **insecticide**, **fungicide**, **herbicide**, etc.

Insect Damage

Daylilies, in general, are not subject to insect damage unless they are badly neglected or grown under poor conditions. The good gardener regularly inspects his plants, looking for insect damage or plant diseases and takes appropriate action to eradicate the problem before a major infestation occurs. The following insects cause most daylily problems:

- **Thrips** affect the buds and ultimately the flower. They chew the buds and tender branches. The damage is done to the buds just as the outer petals begin to loosen. White scars left on the blossom are particularly noticed on dark red and purple ones. Control by spraying insecticidal soap 2-3 times at 5 to 7 day intervals, beginning just after buds form. Chemical controls are also available. If you choose to use a chemical pesticide, contact your local Cooperative Extension office for specific recommendations.

- **Aphids** primarily damage foliage in early spring causing foliage to yellow. Most aphids are found between the leaves, at the base near the crown. Control with insecticidal soap.
- **Mites** can damage foliage by sucking out the juices during prolonged, hot, dry periods. They can be controlled by keeping the garden well-watered and washing the undersides of the leaves well. Insecticidal soap, sprayed on the undersides of the leaves, also controls them.
- **Slugs** can damage the emerging growth of daylily plants in early spring. Slugs emerge from under the winter mulch to feed at night. Control by eliminating the mulch, spreading slug bait or using beer in shallow containers near the plants. See Home Grounds Fact Sheet B-2-29.

Disease Damage

Two diseases, leaf spot and russet spot, can be found on daylily. The causes are fungal and unknown, respectively. Plant sanitation is a key to keeping plants free from fungus and in good health. Spring sickness, often seen on Long Island, may be a constellation of diseases. It causes twisting or discoloration of fans and a generally ragged looking appearance. Its cause is not well understood. Without treatment the plants generally outgrow it with the advent of warmer weather.



"This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office (631) 444-0340. Read the label before applying any pesticide. Cornell Cooperative Extension and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products is made or implied."