

Daylilies

Daylilies are beautiful, easy-to-maintain, perennial garden flowers that bloom from early summer into fall. Daylilies belong to the genus *Hemerocallis*, which is derived from the Greek words for *beauty* and *day*, creating the idea “beauty for a day.” Indeed, each flower normally opens for just one day, and there is a succession of flowers throughout the blooming season. Flower colors of modern cultivars include almost every color of the rainbow, except true blue and pure white. In addition, flower shapes may vary, and more than one color can be found on a single bloom in a wide variety of patterns. Daylilies can range in height from 8 inches to 5 feet, and flower size can be as small as 2 inches or as large as 8 inches. Given the range of choices available, there is a daylily cultivar suitable for almost every landscape situation and purpose.

Daylilies can survive and, in some cases, thrive with little care. Older cultivars can often be found scattered around abandoned homesites, still growing and blooming after years of neglect. This tenacity, in part, may be because of their adaptability to a wide range of soil, water, and light conditions and their relative resistance to insects and diseases. Such a tough plant is well suited for those who desire summer color with low maintenance. Use daylilies as accents in shrub borders or in mixed plantings with other perennials. Daylilies may also be used as ground covers in areas that are difficult to mow on slopes or other out-of-the-way places. Daylilies are not only useful in the

home landscape, they are eminently suitable for public places, such as pedestrian areas and parks and outside hotels, offices, and hospitals.

Since many daylily hybrids come in bold, warm colors, an odd assortment of plants arranged haphazardly should be avoided. Carefully planning the landscape before planting helps prevent the “collection” appearance. Generally, daylilies are most effective when planted in groups of three to five or more of the same type. Grouping makes plant care easier and increases visual impact from the flowers. Particular attention should be given to surround-

ing landscape features. For example, pastel colors of soft yellow or pink show up best in front of a dark background of wood, brick, or evergreen shrubs.

Conversely, a light background enhances the darker flowered types. In mixed plantings, pay particular attention to adjacent colors; orange and dark red colors may clash, for example. If a mass planting of daylilies in different colors is planned, arrange the colors to blend from lightest to darkest either left to right, right to left, or front to back.

Light Requirements

Plant daylilies in sun or partial shade. This usually implies a mostly open east, west, or south exposure. However, daylilies are adaptable and will grow in less light, although fewer flowers are usually produced, and these may bend toward the light and stretch. Generally, pastel flowers require more light to enhance the delicate color. Dark colors absorb more heat and light in full sun, which can scald the petals. Plant these colors in areas protected from strong afternoon sun.

Many of the small-growing daylily cultivars are ideal for planting in containers. They will provide months of color on the patio or deck and can be mixed with other perennials or annuals. Fill the container with a well-drained potting soil or compost and be careful to keep the medium well watered and fertilized during the growing season. Many daylilies can be overwintered in the container in mild climates.

Soil Preparation And Fertility

Although adaptable to a wide range of soil conditions, daylilies grow best in a well-drained, porous soil that is high in organic matter. If the soil is tight clay and not well drained, work in one bale of peat moss (6 to 8 cubic feet in the top 6 to 8 inches of soil per 100 square feet of bed area). Well-rotted manure or compost can also be used as organic matter. Perform a soil test 4 to 6 weeks after the organic matter has been applied to determine the pH and fertility levels. This will be the best guide to the kinds and amounts of fertilizer and lime needed. Daylilies do not tolerate constantly wet soils well, so if the soil is problematic, consider constructing raised beds to improve soil drainage.

If a soil test cannot be performed and the soil is known to be acid, add agricultural limestone at a rate of 3 to 5 pounds per 100 square feet of bed area. As a general recommendation, add 2 to 3 pounds of 13-13-13 or similar analysis fertilizer per 100 square feet of bed area. Mix the limestone and fertilizer thoroughly in the soil before planting.

A soil test is also the best guide to fertilizing established plantings. If soil test results are not available, follow these recommendations for 100 square feet of bed area annually. For soils low in fertility, apply 2 pounds of 13-13-13 or similar analysis fertilizer in the early spring and repeat in June. For soils high in fertility, make only one application of 12-3-6- or similar analysis fertilizer at a rate of 2 pounds per 100 square feet of bed area in the early spring. Apply $\frac{1}{4}$ pound ammonium nitrate in the bed in June. If daylilies have a good green color and are growing vigorously, omit the last fertilizer application. Apply fertilizer when the plant foliage is dry, and water fertilizer into the bed thoroughly.

Planting

Containerized daylilies purchased locally can simply be removed from the pot and firmly planted so that the container soil level is slightly higher than the surrounding soil in the bed. If a gardening friend donates a large clump, or if you have a large division from an existing plant, simply plant the clump at the same soil level that it was originally growing or slightly higher. Be sure to backfill, firm the soil, and apply water and firm the soil so there are no air pockets. Bare root, individual crowns with fleshy roots and one growing point, called *fans*, can be purchased by mail order, donated by friends, or divided from existing plants. These should be planted as soon as possible. If immediate planting is not possible, heel the fans into some moist soil in a shaded location. To plant fans, first trim off the top third of the leaves into a fan shape to reduce transplant stress, then prepare a planting hole with a mound of soil in the bottom. Spread the fleshy roots evenly around the mound of soil and backfill the hole so the crown is at or slightly higher than the surrounding soil surface. Planting too deep should be avoided because it may result in low vigor, poor flowering, and yellowing or browning of the leaves. Water the newly planted daylily thoroughly. Most cultivars can be planted 18 inches apart.

Watering

Although daylilies are remarkably tolerant of dry conditions, they do need extra water at certain times. Water new plants frequently until they become established. Then it will not be necessary to water them except during extended dry spells and perhaps just before and during the flowering period. Gradually soak the soil to a depth of about 8 inches once each week if there is no rain. Frequent, light waterings will cause plants to develop an undesirable shallow root system susceptible to stress.

Mulching

Daylilies benefit from a mulch. Mulching reduces loss of soil moisture, helps control weeds, and maintains a more uniform soil temperature. Pine needles, pine bark, or leaves are good mulching materials. When settled, the mulch should be 2 to 3 inches deep.

Dividing Plants

Daylilies multiply and increase in size for many years without much attention. Eventually, however, they outgrow their location or produce blooms only around the outer edges of the clump. In either case, divide and replant so the roots will have enough space to grow, thereby producing better quality blooms.

Even though daylilies can be divided and planted any time of the year, late fall, late winter, or early spring seems to be the most satisfactory.

Lift the entire clump or cluster out of the soil with a garden fork. Avoid using a shovel because it can cut many of the roots. If the entire clump can't be lifted, begin on the outer edge and remove only a portion at a time. After selecting the most vigorous plants on the clump's outer edge, the center portion may be discarded, or you can save it to produce more plants.

The size of each division should depend on your needs. If you need a large number, divide them into clumps of one to three plants. Larger clumps of six to ten plants will usually bloom the next year and for several more years without becoming too crowded.

To separate a clump into individual fans, shake the clump to remove as much soil as possible, then work the roots of individual fans apart. Heavy soils may be removed from clumps using water from a garden hose. Two-year-old plants are best for transplanting. One-year-old plants can also be used for increasing your stock of a favorite variety; however, these may not bloom until the second year after transplanting.

Proliferations

Some daylily cultivars produce small plantlets from the side of the flower stalk (scape). These plantlets can be removed and rooted, and they will grow into new plants of the same type. Simply cut the scape slightly above and below the plantlet and stick it into a moist rooting medium of half peat moss and half perlite. Place the rooting container in a shaded area and cover it with clear plastic or glass to create a mini-greenhouse. Check the rooting medium every 2 to 3 days to be sure it remains evenly moist. When a good root system develops, transplant the plantlet to the daylily bed.

Hybridizing

Few flowers are better suited to amateur hybridizing than daylilies. No formal training is needed for *Hemerocallis* breeding. The flower parts are large and easily found, and the mechanics of crossing are quite simple. Essential flower parts include the pistil (female part) and the stamens (male parts). There are generally six stamens and one pistil in each daylily flower. The stamen is a slender stalk with an anther (the pollen bearing organ of the flower) at the top. Cross-pollination consists of dusting pollen from an open anther of one cultivar onto the tip or stigma of the pistil of another cultivar. Fertilization of the embryonic seed takes place, and the new seed is therefore a hybrid.

Make crosses as soon as possible after flowers open in the morning to prevent natural self-pollination. First, remove the six anthers from the flower to be pollinated, being careful not to injure the remaining pistil. Next, rub an anther from the male parent onto the tip of this pistil. Break petals and sepals off the flower to prevent further pollination by insects. Label each flower pollinated indicating both female and male parents; example: Alan (female) × War Eagle (male).

Soon after fertilization, small seed pods swell and develop rapidly. Gather the seed just before pods begin to break open at the top. Seed may be planted immediately after gathering. Most growers plant the seed outdoors in well-prepared seed beds to which organic matter has been added.

Plant seed 1/2 to 3/4 inch deep. Keep the planting area moist until the first seedlings are noticed. Germination usually occurs a few days after planting. Keep young plants well watered. When large enough to handle, transplant them to a permanent bed. The hybrid plants may flower during the second or third growing season with colors and qualities previously unknown.

Cultivars

Daylily cultivars may be classified based on a number of criteria including flower color or plant size. One important additional classification to consider in choosing cultivars is based on hardiness, and daylilies fall into one of three groups: dormant, semi-evergreen, and evergreen.

Dormant. Foliage offers little if any resistance to early freezes and declines to the point that no foliage remains above the soil (even in mild climates) until spring.

Semi-evergreen. Foliage either dies down briefly in early winter or gradually declines through successive freezes, then initiates entirely new growth that emerges and maintains itself as short sprouts until it rapidly elongates in very early spring.

Evergreen. Foliage remains green through winter in milder climates.

Generally, evergreen cultivars are not well adapted to areas with cold winter conditions, whereas cultivars in the dormant category are extremely hardy. Semi-evergreen cultivars fall somewhere in between.

Another class of daylily cultivars frequently found in catalogs are **tetraploids**. These plants have been treated in order to double the usual chromosome number. The advan-

Cultivar Name	Bloom Season	Height (in inches)
Purple		
Andy Barfield	M	28
Double Grapette	E	24
Lavender Flight	M	34
Sebastian	M (R)	20
Turkish Tapestry	M (R)	24
White		
Arctic Snow	M	23
Joan Senior	M (R)	25
So Lovely	M	30
Pink		
Baker Trace	M (R)	20
Barbara Mitchell	M (R)	20
Beauty Within	E	23
Best of Friends	M	19
Cee Tee	M (R)	25
Chorus Line	M (R)	20
Double Pink Treasure	M	21
Doxology	M	24
Winsome Lady	E (R)	28
Red		
Baby Betsy	M (R)	18
Big Apple	M (R)	26
Charles Johnston	M (R)	24
Imperial Guard	E (R)	28
Scarlet Orbit	E (R)	22
Seductor	E (R)	18
Rose		
China Lake	M (R)	28
Color Splash	E (R)	18
Washington Farewell	M	30
Yellow		
Bitsy	E	18
Cats Cradle	M (R)	38
Cartwheels	M	30
Kindly Light	M	28
Knee Baby	M (R)	22
Matt	M	20
Sabie	E (R)	24
Stella De Oro	M (R)	11
Super Double Delight	M	30

E=early; M=early mid- to mid-season; R=rebloom (more than one flowering period per season.)

tages of tetraploids include larger, more colorful flowers, larger, more substantial leaves and scapes, and greater resistance to diseases, pests, and adverse weather conditions.

Catalogs often offer a bewildering array of daylily cultivars in all sizes and colors. A few are listed above.

Choosing the right cultivars for a given landscape situation can be difficult. Pictures in catalogs often do not represent the true flower color

and tell little about the quality of the plant. It helps to see a plant before you buy. The following are some guidelines:

- Visit private gardens, garden centers, or botanical gardens and develop a list of cultivars you like and that perform well in your area.
- Select cultivars with a final plant size appropriate to your garden's size and character.
- Select cultivars with flowers that suit your taste and fit well with the color scheme in your landscape.
- Find out if the flowers of a particular cultivar hold up well to rain or if the color fades in strong sunlight.
- Find out when a particular cultivar blooms and for how long.

Diseases

Daylilies in Alabama are not usually troubled with diseases. However, certain diseases occasionally occur; these are outlined below with recommendations for control.

Leaf spots. Small, tan to grayish-black spots appear on leaves. Remove and burn or compost affected leaves as they appear. Remove infested foliage in late or early winter.

Root rot and root-knot nematodes. Small knot-like galls may appear on roots, or the root system may have discolored areas present. Plant disease-free stock in clean soil.

Daylily blight. Flower stems suddenly wither and die. Leaves turn yellowish or light-brown and die. Roots are usually decayed. However, the plants often recover within the same season or the following season. No control known.

Insects And Related Pests

Daylilies are relatively pest-free; however, a few can cause problems.

Thrips. Thrips are minute, slender insects less than 1/8 inch in length with narrow, fringed wings and rasping mouthparts. Feeding by these insects causes foliage to have a silvery appearance. Where heavy infestations develop, leaves and petals often become distorted, turn brown or black, and may die.

Spider mites. Spider mites are among the most serious pests of ornamental plants. They use their needle-like mouthparts to puncture tissues and suck juices from plants. Leaves and flowers appear speckled when only a few mites are present. Later, as mites multiply, the individual spots run together, and entire leaves become bleached and curled and may drop off.

Aphids. Aphids feed by sucking the juices from tender plants, often causing unthrifty and deformed plants, and the leaves become curled and shriveled. These

insects are further injurious because most species excrete a sweetish honeydew which is attractive to ants and on which sooty mold fungi grow. This black mold may become very unsightly and can weaken plants.

Slugs and snails. Slugs and snails often feed at night on daylilies and numerous other succulent plants. They can cause severe damage to foliage and may destroy plants.

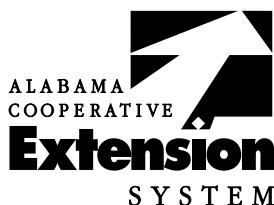
For more information about these pests, please contact your county Extension agent for the following publications:

ANR-689, "Nematode Pests Of Flowers And Woody Plants."

ANR-192, "Controlling Spider Mites On Ornamentals."

ANR-189, "Controlling Aphids On Ornamentals."

ANR-188, "Controlling Flower Thrips On Ornamentals."



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