

# Ornamental Grasses

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Ornamental grasses make ideal garden plants. Most are quite vigorous, require minimal care and add color, form and texture to the landscape. They are available in sizes ranging from as short as 6 inches to as tall as 15 feet and can tolerate a wide array of exposures and soil types. Most are reliably winter hardy in Missouri's climate, which makes annual replanting unnecessary. Add to this their ability (in many cases) to tolerate hot, dry weather, and it is no wonder that ornamental grasses enjoy great popularity in the gardening world today.

## Classification

Ornamental grasses usually are classified first according to their temperature preference: cool-season or warm-season. Cool-season grasses (many of which are evergreen) prefer temperatures ranging from 60 to 75 degrees F. They make significant growth early in the spring (April and May) and again later in the fall (September and October). They are not well suited to hot, dry conditions and frequently go dormant during the heat of summer. On the other hand, warm-season grasses thrive at temperatures in the 80 to 95 degree F range. They are a bit late to emerge in the spring (late April and May) and make their major growth when temperatures are warm. Warm-season grasses tolerate hot weather and remain attractive well into the fall, when many of them have added interest because of their attractive flowers. Warm-season grasses die back to the ground after the first hard freeze of the fall but retain ornamental value in a dried state well into the winter.

Ornamental grasses can also be classified according to their growth habit. Most ornamental grasses form clumps, rendering them noninvasive and suitable for use as specimen plants or for massing. These grasses exhibit a wide array of architectural forms, including tufted, mounded, upright, upright divergent, arching and upright arching (Figure 2). The shortest ornamental grasses usually exhibit a tufted habit of growth, and the tallest are upright arching in form. A second classification of ornamental grass according to their growth habit is spreading, or running. These grasses creep or



**Figure 1.** Like many other ornamental grasses, maiden grass requires little care and adds interest to garden landscapes.

spread thanks to aboveground structures called stolons or below-ground structures called rhizomes. They can be quite invasive and choke out neighboring vegetation. While this is undesirable as a companion plant in the ornamental garden, it is a preferred trait for a plant to be used as a single species to be used as a ground cover or to stabilize soil. Spreading ornamental grasses can be contained in mixed plantings by cutting the bottom out of a 5- or 7-gallon nursery container, sinking the container into the ground until its top is level with the surface of the soil and planting the grass in the center of the container.

## Cultural requirements

As a rule, ornamental grasses are tolerant of soil conditions, although most prefer a well-drained garden loam fairly high in organic matter. Most ornamental grasses are full-sun plants and should receive at least six to eight hours of direct sun each day for best growth. Application of between one and two pounds per 100 square feet of a complete, general-purpose garden fertilizer such as 5-10-5 or 10-10-10 before planting should supply adequate nutrients for quick establishment. Once established, ornamental grasses should not be heavily fed; application of one-half to one pound per 100 square feet of a complete, general-purpose garden

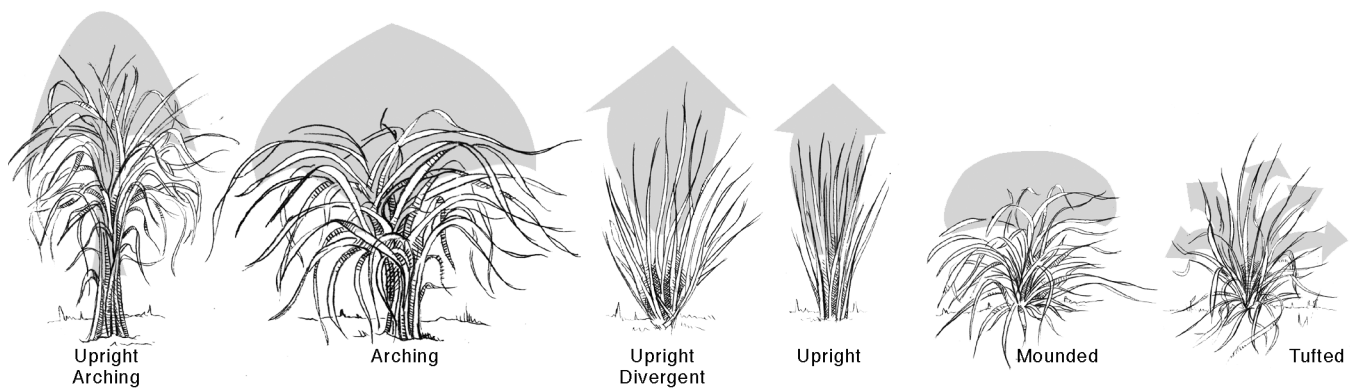


Figure 2. Ornamental grasses can be classified by various architectural forms.

fertilizer is sufficient. This is equivalent to about one-fourth to one-half cup per plant. Apply fertilizer in the spring just as new growth emerges. Excessive fertility (especially in the form of nitrogen) encourages lush, weak growth unable to stand on its own. Additionally, late applications of fertilizer to warm-season grasses tend to reduce their winter hardiness.

Cool-season ornamental grasses can be planted in the spring or fall; warm-season grasses should be planted only in the spring. Fall-planted grasses benefit from a light mulch applied after several hard freezes have occurred during their first winter. Winter protection in succeeding years usually is not warranted. Spacing ornamental grasses is a matter of personal preference and intended function in the garden. For small groupings, spacing plants at intervals equal to their mature height is considered satisfactory. Grasses should be watered regularly during their first season of growth to encourage the establishment of a deep, vigorous root system. Once established, ornamental grasses usually require supplemental irrigation only during periods of hot, dry weather. This is especially true for warm-season grasses. The amount of water to apply depends on several factors, including species, exposure, soil type and size. Additionally, most ornamental grasses are remarkably pest-free and usually do not require application of pesticides.

Routine maintenance procedures include cutting back ornamental grasses in late winter or early spring to remove old, unsightly growth and to allow new growth to develop without being shaded by the old. Clump-forming grasses should be divided regularly to keep the clump “young” and attractive. Older clumps tend to die in the center, leading to an unattractive shape and appearance. Frequency of division depends on species, soil fertility and exposure, but dividing every third year is a safe rule of thumb for most species. This should be done in late fall or early spring when the plant is dormant.

## Landscape use

Ornamental grasses have many uses in the landscape. Their wispy, graceful foliage adds interesting

form and texture to both beds and borders. Taller species make effective screens while medium-sized species combine well with foundation plantings around the home. Shorter species can be incorporated into plantings of annuals or perennials, or they can be planted in masses for an interesting carpet bed effect. Spreading or running species are effective in stabilizing soil on steep banks or attractively occupying an area that is difficult to maintain. All ornamental grasses flower (most producing panicles, racemes or spikes), giving them additional appeal. While the flowers of most are not especially colorful, they do add interest and appeal and often are produced in late summer or early fall — a time when the garden could use a bit of change.

## Description of popular species

**Blue fescue** (*Festuca ovina* var. *glauca*) is a cool-season, clump-forming grass native to Europe with attractive silvery-blue foliage. It exhibits a low, tufted growth habit and reaches a mature height of between 6 and 10 inches. Its flower is of little ornamental value and should be removed. Blue fescue thrives in full sun or partial shade and is tolerant of dry conditions. The more sun it receives, the deeper will be its blue color. Because of its small size it most often is used as an edger or planted in mass for a ground cover effect. It is subject to summer dieback under hot conditions or in poorly drained sites. The cultivar ‘Elijah Blue’ is preferred over the species because of its superior blue color.

**Feather reed grass** (*Calamagrostis arundinacea*) is a cool-season, clump-forming grass native to Europe. It has a fairly upright habit of growth to a mature height of about 36 inches. Its leaves are dull green in color, coarse to the touch and about ½ inch wide. Feather reed grass bears flowers in early summer in the form of greenish panicles that mature to a straw or buff color. Its flowers are about 15 inches long and held in a fairly tight cluster just above the foliage and retain ornamental value late into the winter. Feather reed grass thrives in full sun in nearly any type of soil. Although it appreciates a good garden loam, it is one of the few ornamental grasses that will tolerate heavy soils or moist, poorly drained areas. It is considered by

many to be one of the best medium-sized ornamental grasses and can be used as a specimen or planted in mass. The cultivar 'Karl Foerster' produces pinkish panicles that mature to a golden-tan and is superior to the species in ornamental value.

**Fountain grass** (*Pennisetum alopecuroides*) is a warm-season, clump-forming grass native to China. It exhibits a graceful, arching habit of growth to a mature height of about 36 inches. Fountain grass has leaves that are about ¼ inch wide and turn from a bright green during the summer to a golden brown in the fall. In mid- to late summer it bears 5- to 7-inch spikes that somewhat resemble a bottlebrush. Its flowers are not particularly long-lived and cannot be dried. Fountain grass prefers a full-sun exposure in a well-drained garden loam. Because of its medium size and graceful appearance, it makes an excellent border plant. 'Hameln' is a particularly desirable cultivar that matures to a height of between 24 and 36 inches and blooms profusely in good conditions.

**Giant Chinese silver grass** (*Miscanthus floridulus*) is a warm-season, clump-forming grass native to China. It has an upright, arching habit of growth to a mature height of 10 to 14 feet. Its leaves are glossy green with a distinct white (silver) midrib and are about 1 to 1½ inches wide and up to 2½ feet long. Its canelike stem can achieve a mature diameter of up to 2 inches. In early fall, giant Chinese silver grass bears reddish-brown panicles held about 24 inches above its foliage. Flowers dry to a light straw color and retain ornamental value well into the winter. It prefers full sun in a fertile, moist soil and is quite tolerant of hot weather. Giant Chinese silver grass needs room in the garden because of its large size. It can be incorporated as a background specimen in a planting of ornamental grasses or taller perennials, or it can be used to form an effective hedge or screen. There are no named cultivars.

**Indian grass** (*Sorghastrum nutans*) is a warm-season, clump-forming grass and is one of North America's most attractive native grasses. It is a major component of "tallgrass prairies" still found in sections of the Midwest. Indian grass has leaves that are about ⅜ inch wide and 18 inches long with attenuate tips and glabrous surfaces. Foliage typically turns to a burnt orange color in the fall. It displays a large, arching habit of growth and matures to a height of up to 6 feet. It bears a narrow panicle as a flower in late summer that adds interest to the plant until early winter. Indian grass prefers full sun and tolerates a variety of soils, although it prefers a deep, moist garden loam. It is considered to be both heat and drought tolerant. It is useful in massed plantings, in naturalized areas, or in the rear of large ornamental borders. Indian grass also is useful in stabilizing soil in areas where erosion is a problem. There are no named cultivars.

**Japanese blood grass** (*Imperata cylindrica* var. *rubra*) is a warm-season, spreading grass native to

Japan. It is distinguished by its uniquely colored, blood-red leaves that are about ½ inch wide. Japanese blood grass has an upright and somewhat arching habit of growth to a mature height of between 12 and 18 inches. Its flower is not significant. It tolerates full sun as well as partial shade but must have well-drained soil to thrive. Japanese blood grass spreads fairly rapidly but is not considered to be overly aggressive in the garden. It usually is massed in the border for its brilliant color but can be used in tubs or containers as well. 'Red Baron' is a meritorious cultivar that is preferred over the species because of its superior color.

**Maiden grass** (*Miscanthus sinensis* 'Gracillimus') is one of the most popular ornamental grasses because of its narrow, graceful leaves that move gently in even the slightest of breezes in the garden. It is a warm-season, clump-forming grass whose parental species (*M. sinensis*) is native to Japan. Maiden grass has narrow leaves about ¼ inch wide with a distinctive white midrib and forms a graceful, arching clump 48 to 60 inches tall. It bears 12- to 15-inch copper-colored panicles that are held 12 to 15 inches above its foliage in late September. The panicles dry to a silvery-white color and "fluffy" texture at maturity and add interest to the plant well into the winter. Maiden grass prefers a full-sun exposure in a moist, fertile garden loam. It needs to be divided every third or fourth year to keep the center of the clump from dying. Numbers of other named cultivars have been selected from *M. sinensis*, but 'Gracillimus' remains the most commercially available and widely planted.

**Northern sea oats** (*Chasmanthium latifolium*) is a warm-season, clump-forming grass native to North America. It displays a fairly upright and somewhat arching habit of growth and produces a mature clump 30 to 36 inches in height. Leaf blades are about ¾ inch wide, flat and glabrous except for their rough margins. Northern sea oats derives its common name from its flowers, which are drooping panicles 5 to 10 inches long containing 1-inch spikelets that hang from thread-like pedicels. The overall effect of the flower is striking and not unlike the appearance of dangling green jewels that change from green to a reddish-bronze color at maturity. Flowers appear in late summer and remain attractive throughout the winter, giving this grass three seasons of effect. Northern sea oats prefers full sun and fertile, well-drained soil. It is one of the more shade tolerant ornamental grasses but will produce taller plants in shadier conditions. Northern sea oats can be used in borders, water gardens, naturalized areas and in dried flower arrangements. There are no named cultivars.

**Plume grass** (*Erianthus ravennae*) is a warm-season, clump-forming grass sometimes referred to as hardy pampas grass. Although attractive, true pampas grass (*Cortaderia selloana*) is not reliably hardy past zone 8 and is not a wise choice for the Midwest. Plume grass is native to Europe and reaches a height of up to

14 feet when in bloom with an upright, arching growth habit. Its V-shaped leaves are about 1 inch wide with a distinctive, white midrib. Both surfaces of the leaf are coarsely pubescent, giving them a raspy feel. The flower is a large, showy panicle on stout pedicles held well above the foliage. They appear in late summer to early fall and change to a buff-gray color and “fluffy” texture upon maturity and retain a showy appearance well into the winter. Plume grass prefers a full-sun exposure and well-drained soil; heavy soils are to be avoided. It can be used as a specimen in the landscape because of its interesting architectural form or planted in mass to form an effective screen. The panicles dry easily and are useful in flower arrangements. There are no named cultivars.

**Porcupine grass (*Miscanthus sinensis* ‘Strictus’)** is a warm-season, clump-forming grass selected from a species native to Japan. It is unique among other cultivars of *M. sinensis* because of the bright yellow, horizontal variegation on its leaves (somewhat resembling the bands on the quills of a porcupine). Leaves are up to ½ inch wide and are held fairly upright, producing a stiffly arching clump that achieves a mature height of 48 to 60 inches. It flowers in late summer and produces a 12-inch copper-colored panicle similar to that of maiden grass; flowers dry to a buff color upon maturity and remain attractive well into the fall. Porcupine grass prefers a full-sun exposure in a moisture-retentive, fertile garden loam. It makes a dramatic effect in the garden because of its bright, horizontal variegation and is used both as a specimen plant and in mass plantings. It closely resembles zebra grass (*M. sinensis* ‘Zebrainus’), which has a more graceful, arching habit of growth but is a bit less winter hardy than porcupine grass. Another cultivar (*M. sinensis* ‘Variegatus’) is similar in size and nature to porcupine grass but has leaves with attractive, white variegation that is longitudinal rather than horizontal. It has a graceful, arching growth habit.

**Purple fountain grass (*Pennisetum setaceum* ‘Rubrum’)** is a warm-season, clump-forming grass native to Africa. Hardy only to zone 8, it is treated as an annual grass in the Midwest but worth replanting each year because of its colorful leaves and flowers. It produces burgundy-purple leaves about ½ inch wide that form a graceful arching clump that achieves a mature height of between 36 and 48 inches. The flower is a colorful, dark purple plume 8 to 12 inches in length with a bottlebrush appearance. It flowers profusely from June through frost. Purple fountain grass prefers a full-sun exposure in moisture-retentive yet well-drained soil. It is effective as a specimen plant in the center of an annual bed or it can be used to add height and volume

to a border. Although it prefers adequate moisture, it is extremely heat tolerant and adds excellent color and texture to the garden.

**Ribbon grass (*Phalaris arundinacea* var. *picta*)** is a warm-season, spreading grass native to North America and Europe. Its colorful, green-and-white variegated leaves are about ⅔ inch wide and 6 to 12 inches long. The green and white colors are about equal in amount, giving the leaves a ribbonlike appearance. Its flowers appear in early summer but are not of significant ornamental value. Ribbon grass rapidly spreads to form a loose, somewhat open ground cover between 18 and 24 inches in height. It tolerates full sun or partial shade and thrives in nearly any type of soil. Ribbon grass makes an effective, colorful ground cover because of its aggressive habit of growth. If planted in a border it should be planted in a bottomless container sunken into the soil to control its spread. Because of its ability to tolerate wet soils, it can be used effectively to hold soil in place along stream banks.

**Silver banner grass (*Miscanthus sacchariflorus*)** is a warm-season, spreading grass native to China. It has medium-green leaves about ⅝ inch wide and up to 10 inches long borne on stout, upright stems. Like many other members of the *Miscanthus* genus, its leaves are distinguished by a pronounced white midrib. Leaves have the added attraction of turning a reddish-orange color in the fall. In midsummer silver banner grass produces 8- to 10-inch silvery panicles that are held well above the foliage and are effective into the fall. Silver banner grass thrives in full sun in moist-to-wet soil and spreads rapidly by rhizomes to form a dense, upright mass of foliage 48 to 60 inches in height. Because of its affinity for moisture, silver banner grass is excellent for massing along water features and for soil stabilization along stream banks. It is invasive and should not be planted close to desirable species without containment. There are no named cultivars.

**Switch grass (*Panicum virgatum*)** is a warm-season, clump-forming grass native to North America and another of the “tallgrass prairie” grasses. It produces flat, glabrous leaves about ⅝ inch wide and 24 to 36 inches long; growth form is tall and arching or mounded to a height of between 48 and 72 inches. Switch grass produces fine-textured, delicate panicles about 24 inches long in mid- to late summer that are purplish upon emergence and mature to a beige color. It prefers a full-sun exposure in moisture-retentive soil but will tolerate some shade and dry soil. Switch grass is best used in masses or for living screens. There are several named cultivars available (e.g., ‘Rehbraun’) selected for shorter height and pigmented (usually red or purplish) foliage.