



William T. Kemper Center for Home Gardening

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Ornamental Grasses

History is sprinkled with references to members of the grass family and their role as useful plants. Covering half of the area of the United States, grasses surround us everywhere we go. Ten of the fifteen major food crops are grasses. Grain from wheat, corn, rice and oats supply a concentrated source of protein, carbohydrates and minerals. Sugarcane and bamboo are both very important food items in many countries.

Probably the first grass family member to be taken from the New World back to Europe was maize. The first grass purposely brought back to the New World was giant reed grass (*Arundo donax*). Transplanted to California by the mission fathers, it was fashioned into animal pens, woven into baskets and grown for protection against the wind.

Ornamental grasses are grass or grass-like plants that are used chiefly for their beauty. Ornamental grasses first enjoyed popularity in Germany during the mid-1930s. The driving force behind the popularity and use of ornamental grasses in the landscape was the outstanding German nurseryman, Karl Foerster. Foerster spent years collecting grass seeds and plants from America as well as from other parts of the world. Foerster observed his "discoveries" for many years in his perennial nurseries before introducing them to the trade.

Due to the recent resurgence in popularity, more and more varieties of ornamental grasses are becoming available each year. As a result, there is an ornamental grass suited to almost every garden setting and situation. This great variety of size, shape, and color adds texture, motion and grace to the home landscape.

Benefits of Ornamental Grass

Far from just green plants, ornamental grasses offer year-round landscaping. While beautiful in the spring, summer and fall, many people think they are at their best when providing seasonal interest and beauty in the winter garden. When covered with a blanket of snow, ornamental grasses are magically transformed into winter masterpieces.

During the growing season, many species of ornamental grass exhibit beautiful variegation and colorful foliage. Colors range from every shade of green and blue to brilliant reds and purple. In addition to colorful foliage, the flowering heads of ornamental grasses (inflorescence) provide many shades of color from summer to late fall.

Ornamental grasses are available in a variety of shapes and sizes ranging from the low mounding fescue to the tall vertical species, such as giant reed grass, suitable for specimen plants or as screens and hedges. This diversity in shape and size adds the dimension of depth to the landscape.

Textures exhibited by ornamental grasses range from fine to coarse. Textures exhibited by the leaves include the thin, spiny leaves of fine-textured fescue to the coarse, wide leaves of Indian grass.

Graceful and fluid, ornamental grasses also add a sense of movement and soft, soothing sound to the garden. Movement may be seen as waving or shimmering, or heard as rustling, whispering or sighing. The sounds of ornamental grasses often differ with the seasons.

Most importantly, ornamental grasses provide an ecologically sound landscaping choice for the environmentally sensitive times in which we live. They require minimal maintenance and are relatively pest and disease free, thus limiting the need for chemical controls and fertilizers. Many ornamental grasses are also drought tolerant placing fewer demands on precious water resources. In addition, grass plants provide food and shelter for wildlife during the lean winter months.

Planting and Selection

As it does with any plant, selection of grasses begins with choosing the right plant for the right place. When choosing an ornamental grass, be certain to choose one that is hardy in your climate. It is also important to choose a specimen that fits the size, shape and needs of your landscape.

Season of interest is another important consideration when selecting an ornamental grass. Grasses are classified as either warm-season or cool-season species, depending upon when they are in active growth. Cool-season grasses begin growth in late winter or early spring and flower from winter to early summer. Warm-season grasses grow when temperatures begin to warm in early spring. They flower and set seed in the summer and fall. As winter approaches, warm-season grasses begin to change color and become completely dormant.

Ornamental grasses can be obtained as seed, bare rooted or as containerized plants. If your local garden center does not carry a large selection of ornamental grasses, you might want to consider ordering from a mail-order nursery. In general, it is best to order grasses in the fall and winter to assure their availability in the spring.

Most ornamental grasses do well in average garden soils. In general, select a site with full sun and average fertility and drainage. Plant grasses in the fall or early spring. Before planting, incorporate a balanced fertilizer such as 10-10-10, into the soil at a rate of one to two pounds per 100 square feet. After your grass plants have become established, little, if any supplemental fertilizer is necessary.

Plants should be well-watered the first year until they become established and develop extensive root systems. Once the root system is in place, many grasses can survive without water for long periods of time.

Care and Maintenance

Ornamental grasses are valued as low maintenance plants in the landscape. The two maintenance requirements that ornamental grasses have are annual cutting back of spent foliage and the division of large grass clumps.

The foliage of ornamental grasses may be cut back in the late winter or early spring. Cut back the foliage to within a few inches of the ground just before new spring growth has begun so that the tips of the new shoots are not cut off.

Divide ornamental grass plants every three to four years to reduce crowding, to propagate new plants, or to rejuvenate plants suffering from die-out in the center. Division should be done in the spring just before growth begins, or in the late summer or fall after the growing season.

Dig up the clump with the root ball intact. Cut into large segments with a sharp knife or digging spade. Plant one of the segments in the original location. Replant the remaining segments in other areas of the garden, or give them away to friends.

Pests and Diseases

When properly selected and placed in the garden, ornamental grasses are relatively free of pest and disease problems. Perhaps the most common problem of ornamental grasses is the fungal disease, rust. Rust appears as orange spots, which can spread to cover the foliage. The best way to avoid a problem with rust is to space plants far enough apart to provide good air circulation. In addition, avoid watering the foliage of affected plant material. To prevent the reoccurrence of rust problems, destroy all rust-infected plant material when cleaning up the garden at the end of the growing season.

Ornamental Grasses in the Landscape Perennial Border

Ornamental grasses make superb additions to the perennial border. They lengthen the border's season of show, adding volume and color before and after most perennial flowers bloom. Cool-season grasses such as bulbous oat grass (*Arrhenatherum elatius bulbosum variegatum*), fescue (*Festuca* spp.) and blue oat grass (*Helicotricon sempervirens*) flush out the border in the early spring. Feather reed grasses (*Calamagrostis* spp.) are cool-season grasses that stay showy throughout the year.

There are many warm-season grasses that can be counted on to add dimension and color to the late summer and fall garden. The genus *Miscanthus* includes some of the showiest and most beautiful of the warm-season flowering grasses. Variegated miscanthus (*Miscanthus sinensis* 'Variegatus') and maiden grass (*Miscanthus sinensis* 'Gracillimus') are tall grasses well-suited as specimen plants or situated in the back of the border. Zebra grass (*Miscanthus sinensis* 'Zebrina') and Japanese silver grass (*Miscanthus sinensis* 'Morning Light') are two mid-sized grasses suitable as mid-border accents. Two new compact selections for the front of the border include dwarf Japanese silver grass (*Miscanthus sinensis* 'Gracillimus Nana') and the compact 'Nippon' Japanese silver grass (*Miscanthus sinensis* 'Nippon').

Fountain grasses (*Pennisetum* spp.), while useful in virtually every garden situation, are particularly at home in the perennial border. A particularly useful fountain grass for Midwestern perennial borders is the compact species *Pennisetum alopecuroides* 'Hameln'. While many fountain grasses are hardy to zone 5, many others, such as *Pennisetum setaceum* 'Rubrum', are perennial only to zone 10. Still desirable in the landscape of colder climates, these fountain grass species may be effectively grown in the St. Louis area as annuals.

Many new cultivars of the native tall grass prairie switch grass (*Panicum virgatum*) are being bred with an eye toward foliage color, habit and bloom time. Plant switch grass for a wonderful softening effect in the mid-border. Other native ornamental grasses that deserve attention in the perennial border include wild sea oats (*Chasmanthium latifolium*), little bluestem (*Schizachyrium scoparium*) and Indian grass (*Sorghastrum nutans*).

Screening

In combination with trees and shrubs, grasses may be used to create a year-round screen and a sense of privacy to the garden. Giant reed grass (*Arundo donax*) performs wonderfully as a screen reaching twelve

to fifteen feet in a single growing season. Big bluestem (*Andropogon gerardii*), giant miscanthus (*Miscanthus floridus*) and Japanese silver grasses (*Miscanthus sinensis*) are also exceptional for developing a tall screen. Fountain grass (*Pennisetum alopecuroides*), switch grass (*Panicum virgatum*) and feather reed grass (*Calamagrostis x acutiflora* 'Karl Foerster') all work well as intermediate screens and are useful as background plantings.

Ground Covers

Many ornamental grasses make superb ground covers ranging in height and texture from the low, fine blue mounds of blue fescue (*Festuca ovina* var. *glauca*) to the airy seed heads of prairie dropseed (*Sporobolus heterolepis*). In addition, many shade-loving grasses and sedges (*Carex* spp.) are evergreen, making them excellent choices for ground covers. In areas where erosion control is a concern, ribbon grass (*Phalaris arundinacea* var. *picta*) and giant blue wild rye grass (*Elymus racemosus* 'Glaucus') are aggressive ground covers suitable for stabilizing sandy banks.

Containers

When used alone or grouped with other plants, ornamental grasses provide beautiful, versatile choices for gardening in containers. While many ornamental grasses are suitable for planting in containers, some excellent candidates would include annual grasses, grasses with unusual color or pendant habits.

The arching leaf blades of the annual fountain grass (*Pennisetum setaceum* 'Rubrum') are a deep maroon-purple that make a striking, graceful display when planted in a container. The wispy violet purple panicles of annual purple muhly grass (*Muhlenbergia capillaris*) appear as clouds of purple over the foliage, while the yellow-variegated leaves of St. Augustine grass (*Stenotaphrum secundatum* 'Variegatum') cascade over the sides of planters and containers.

Water Garden

In addition to providing an attractive backdrop to the water garden, the dense root systems of ornamental grasses are effective in binding the soil at the edges of streams and ponds. Suitable grasses for planting around the water garden include prairie cordgrass (*Spartina pectinata*), ribbon grass (*Phalaris arundinacea* var. *picta*) and variegated manna grass (*Glyceria aquatica* 'Variegata').

Rushes and sedges also provide interest around or in the water garden. Attractive species include yellow sedge (*Carex elata* 'Bowles Golden'), umbrella sedge (*Cyperus alternifolius*), silver variegated Japanese sedge (*Carex morrowii* 'Variegata') and corkscrew rush (*Juncus effusus* 'Spiralis').

Rock Garden

Many smaller species of ornamental grasses make excellent additions to the rock garden. Mosquito grass (*Bouteloua gracilis*), side oats grama (*Bouteloua curtipendula*), dwarf fountain grass (*Pennisetum alopecuroides* 'Little Bunny') and the *Festuca* species are excellent selections for the lighter well-drained soil of the rock garden.

Ornamental Grasses as Ground Covers

Common Name	Botanical Name	Height	Comments
Fescue	<i>Festuca</i> species, semi-evergreen	variable	drought tolerant
Prairie Dropseed	<i>Sporobolus heterolepis</i>	2-3'	attractive in winter
Japanese Sedges	<i>Carex morrowii</i> cvs.	18 - 24"	shade tolerant, semi-evergreen
Yellow Sedge	<i>Carex data</i> 'Bowles Golden'	8-12"	best suited to moist areas

Palm Sedge	<i>Carex muskingumensis</i>	2-3'	attractive foliage similar to palm fronds
Ribbon Grass	<i>Phalaris arundinacea</i> var. <i>picta</i>	2-3'	rapid spreading habit
Giant Blue Wild Rye	<i>Elymus racemosus</i> 'Glaucus'	1-3'	useful for erosion control
Tufted Hairgrass	<i>Deschampsia caespitosa</i>	2-3'	will tolerate some shade
Snowy Wood Rush	<i>Luzula nivea</i>	3'	moist-loving semi-evergreen
Bottlebrush Grass	<i>Hystrix patula</i>	2-4'	excellent choice for naturalizing along ponds or streams

Ornamental Grasses for the Perennial Border

Common Name	Botanical Name	Height	Comments
Bulbous Oat Grass	<i>Arrhenatherum elatius bulbosum</i> 'Variegatum'	1 -2'	attractive in early spring and late fall
Silver Beard Grass	<i>Bothriochloa saccharoides</i>	3 - 4'	silky flower puffs in late fall
Blue Oat Grass	<i>Helicotrichon sempervirens</i>	2'	bright blue foliage
Karl Foerster's	<i>Calamagrostis acutiflora</i>	5 - 6'	plant for winter interest Feather Reed Grass 'Karl Foerster'
Fescue	<i>Festuca</i> species	variable	use as an accent plant or for edging
Sea Oats	<i>Chasmanthium latifolium</i>	3'	attractive in winter
Japanese Blood Grass	<i>Imperata cylindrica</i> 'Red Baron'	18"	bright red/green foliage
Japanese Silver Grass	<i>Miscanthus sinensis</i> 'Morning Light'	4 - 5'	attractive in winter
Maiden Grass	<i>Miscanthus sinensis</i> 'Gracillimus'	3 - 6'	showy upright, arching foliage
Porcupine Grass	<i>Miscanthus sinensis</i> var. <i>stictus</i>	6 - 8'	vertical yellow-banding
Heavy Metal Switch Grass	<i>Panicum virgatum</i> 'Heavy Metal'	3 - 4'	wispy silver-blue foliage and inflorescence
Red Rays Switch Grass	<i>Panicum virgatum</i> 'Rotsstrahlbusch'	3 - 4'	best red fall color
Fountain Grass	<i>Pennisetum alopecuroides</i>	3 -4'	graceful, arching foliage
Ribbon Grass	<i>Phalaris arundinacea</i> var. <i>picta</i>	2 - 3'	spreading habit with white and green variegated foliage
Little Bluestem	<i>Schizachyrium scoparium</i>	3'	native prairie grass
Autumn Moor Grass	<i>Sesleria autumnalis</i>	1'	yellow-green foliage
Indian Grass	<i>Sorghastrum nutans</i>	4 - 8'	attractive in winter
Prairie Dropseed	<i>Sporobolus heterolepis</i>	2 - 3'	attractive to wildlife

Ornamental Grasses for Hedges and Screens

Common Name	Botanical Name	Height	Comments
Giant Reed Grass	<i>Arundo donax</i>	12 -15'	outstanding tall screen and windbreak
Big Bluestem	<i>Andropogon gerardii</i>	5 - 8'	tall background plant or screen
Ravenna Grass	<i>Erianthus ravennae</i>	9 -12'	dramatic tall winter skeleton
Giant Miscanthus	<i>Miscanthus floridulus</i>	10 -14'	use as an accent plant or screen
Japanese Silver Grass	<i>Miscanthus</i> species	variable	several varieties suitable as a mid-size hedge
Fountain Grass	<i>Pennisetum alopecuroides</i>	3 - 4'	ideal for around foundations
Switch grass	<i>Panicum virgatum</i> cvs.	variable	many varieties available colorful foliage

Annual Ornamental Grasses for Containers

Common Name	Botanical Name	Height	Comments
Job's Tears	<i>Coix lacryma-Jobi</i>	3 - 6'	grown for beadlike seeds
Squirreltail Grass	<i>Hordeum jubatum</i>	1 - 2'	purplish green inflorescence
Hare's tail Grass	<i>Lagurus ovatus</i>	18 - 24"	inflorescence in white tufts
Goldentop	<i>Lamarkia aurea</i>	12"	golden yellow to purplish flower spikelets
Feathertop Grass	<i>Pennisetum villosum</i>	2'	lovely in fresh or dried flower arrangements
Annual Purple Fountain	<i>Pennisetum setaceum</i>	3 - 4'	burgundy foliage and Grass 'Rubrum' inflorescence
Purple Muhly Grass	<i>Muhlenbergia capillaris</i>	2 - 3'	showy violet purple inflorescence
St. Augustine Grass	<i>Stenotaphrum secundatum</i>	6 - 8"	excellent variegated 'Variegatum' trailing plant

Ornamental Grasses for the Water Garden

Common Name	Botanical Name	Height	Comments
Prairie Cordgrass	<i>Spartina pectinata</i>	4 - 6'	provides wildlife habitat
Ribbon Grass	<i>Phalaris arundinacea</i> var. <i>picta</i>	2 - 3'	attractive in winter
Variegated Manna Grass	<i>Glyceria aquatica</i> 'Variegata'	2 - 3'	aggressive spreader
Yellow Sedge	<i>Carex elata</i>	8 - 12'	performs best near water
Umbrella Sedge	<i>Cyperus alternifolius</i>	2 - 3'	best in containers in ponds or pools
Silver Variegated Japanese Sedge	<i>Carex morrowii</i> 'Variegata'	18 - 24"	prefers partial shade
Corkscrew Rush	<i>Juncus effusus</i> 'Spiralis'	1-2'	attractive in containers

Ornamental Grasses for the Rock Garden

Common Name	Botanical Name	Height	Comments
Purple Moor Grass	<i>Molinia caerulea</i>	3'	showy flowers used in fresh and dried arrangements
Autumn Moor Grass	<i>Sesleria autumnalis</i>	1'	useful on slopes and rocky area
Mosquito Grass	<i>Bouteloua gracilis</i>	1 - 2'	native short prairie grass
Side Oats Grama	<i>Bouteloua curtipendula</i>	2 - 3'	striking purple flower spikelets
Fescue	<i>Festuca</i> species	variable	mound-forming semi-evergreen
Dwarf Fountain Grass	<i>Pennisetum alopecuroides</i> 'Little Bunny'	1 - 2'	smallest fountain grass
Blue Oat Grass	<i>Helictotrichon sempervirens</i>	2'	bright blue foliage
Variegated Velvet Grass	<i>Holcus mollis albo variegatus</i>	8"	semi-evergreen