University of Tennessee, Knoxville
TRACE: Tennessee Research and Creative Exchange

Home Garden, Lawn, and Landscape | UT Extension Publications

6-1999

PB1626-Ornamental Grasses in the Landscape

The University of Tennessee Agricultural Extension Service

Follow this and additional works at: https://trace.tennessee.edu/utk_agexgard

 Part of the Plant Sciences Commons

Recommended Citation

"PB1626-Ornamental Grasses in the Landscape," The University of Tennessee Agricultural Extension Service, PB1626-3M-6/99 E12-2015-00-206-99, https://trace.tennessee.edu/utk_agexgard/62

The publications in this collection represent the historical publishing record of the UT Agricultural Experiment Station and do not necessarily reflect current scientific knowledge or recommendations. Current information about UT Ag Research can be found at the UT Ag Research website.
This Landscaping - Planting is brought to you for free and open access by the UT Extension Publications at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Home Garden, Lawn, and Landscape by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

Agricultural Extension Service
The University of Tennessee

PB1626

Ornamental Grasses in the Landscape





Contents

Warm- versus Cool-Season Grasses.....3
Landscaping with Ornamental Grasses.....3
Screens.....4
Ground Covers.....4
Color Foliage.....4
Special Uses.....5
Dictionary of Ornamental Grasses and Grass-Like Plants.....6
Annuals.....6
Perennials.....7
Grass-Like Plants.....9

Ornamental Grasses in the Landscape

Mary Lewnes Albrecht, Professor and Head
Department of Ornamental Horticulture and Landscape Design

Ornamental grasses add texture, contrast, color and year-round interest to the landscape. Just like other groups of landscape plants, ornamental grasses are a diverse group that expand the plant palette of designers. They come in a range of sizes from the dwarf hakone grass to the giant ravenna grass. There are golden or white variegated cultivars. Some provide shades of silver and blue. Others are tinged red. Grasses that emerge late in the spring can fill voids left by spring-flowering bulbs and early spring perennials. The seed-heads or plumes of late-season grasses add ornamental value that persists into the winter. Most are suited to full sun; some handle shade. Some grasses can be easily integrated into bog or water gardens; others handle the heat and drought of mid-summer. Some spread vigorously; others form neat clumps. As a group, they tend to be free of disease and insect pests.



Figure 1. Ornamental blue fescue in mixed perennial border.

The ornamental grasses belong to the grass family, *Gramineae*. Many other plants also have grass-like foliage and growth habits, but are not classified in the grass family, including members of the *Juncaceae* (rush family), *Cyperaceae* (sedge family), *Liliaceae* (lily family), *Iridaceae* (iris family) and *Equisetaceae* (horse-tail family).

Those most easily confused, the grass, rush and sedge families, are distinguished by the foliage and flower characteristics. True grasses have leaves that are arranged on opposite sides of the stem. The leaves may be directly opposite from each other or may alternate sides on the stem, but they are always on opposite sides of the stem. All grasses have parallel veins running through the long narrow blades of their foliage. The stems of grasses are mainly cylindrical and hollow except at the joint or node (the point where the leaf attaches to the stem). Grasses are generally unbranched, with bamboos being a conspicuous exception.

Sedges differ from grasses in that their stems are solid and triangular with leaf blades on three sides of the stem. Because of this, they have ridges that can be felt when the stem is rolled between your fingers and thumb. The base of the leaf, the leaf sheath, usually does not have a split and it completely surrounds the stem. The leaf sheath on a grass easily pulls off the stem. This is not the case with the sedge. Furthermore, the leaves of sedges are usually strongly V-shaped with a prominent keel along the center of the underside of the leaves.

Rushes tend to have basal leaves that can be either flat or cylindrical. The leaves are pliant, and carry small, greenish flowers. Perhaps the greatest difference between rushes and grasses has to do with the fruit. The fruit of rushes is a three-celled capsule (a dry fruit that will split along a seam) composed of two or more united halves. In fact, many have insignificant flowers and are grown strictly for their attractive and often variegated foliage. For the purposes of this publication, ornamental grasses will be used as an all-inclusive term.

Warm- versus Cool-Season Grasses

Just like lawngrasses, ornamental grasses can also be classified as warm- and cool-season grasses. Why is this important? Understanding the growth patterns of the grasses helps with understanding the maintenance of these plants in the landscape.

Cool-season grasses start growing in late winter or early spring and flower in the spring to early summer. Some, such as *Calamagrostis* cultivars, may go into a decline at the onset of high summer temperatures and remain dormant until early spring when growth resumes. Others, such as *Phalaris* cultivars, may resume active growth in the cool weather of autumn and may retain good color in the winter. Cool-season ornamental grasses can be planted, transplanted and divided just about any time except during the heat of summer.



Figure 2. Decorative seed-head of the annual squirrel-tail barley, *Hordeum jubatum.*

While many perennials begin growth early in the spring, warm-season grasses lie dormant, waiting for soil temperatures to warm. Some gardeners inexperienced with ornamental grasses fear that their warm-season grasses did not survive through winter and may remove them prematurely from the garden. Patience is needed, as some warm-season grasses start growth later in the spring. Patience is often rewarded with rapid growth throughout the summer. Warm-season grasses will flower between mid to late summer and quickly form seed. They remain showy through autumn and into winter. It is best to divide or transplant warm-season grasses once growth has resumed in the summer.

The *Dictionary of Ornamental Grasses and Grass-Like Plants* identifies the most commonly available warm- and cool-season grasses and grass-like plants. Many are found at Tennessee garden centers. Annual grasses are more commonly available from mail-order seed catalogs.

Landscaping with Ornamental Grasses

The new American style of garden design, developed over the past 30 years by Wolfgang Oehme and James van Sweden, makes generous use of ornamental grasses. The grasses are showcased as specimen plants in the perennial or shrub border, or, for a dramatic effect, in large groupings or mass plantings. Their designs abandon the English cottage garden in favor of the limitless prairie concept. In these gardens, grasses of many sizes are blended to form a sea of drifting grasses. The shorter ornamental grasses are used to edge beds. Mid-size grasses are added for vertical lines and to blend textures. The taller grasses are used to provide the structure or backbone for the beds.



Figure 3. Well-placed grasses soften architectural lines of the building and draw attention to the entrance.

With many grasses persisting through the winter, these gardens provide interest for nearly 10 months out of the year. Besides holding attractive seed-heads or plumes late into winter, the foliage fades to different shades of gold and tan. While many garden designers encourage leaving the plumes on the plants through the winter, other

horticulturists recommend removing the seed-heads from warm-season grasses, such as *Miscanthus* cultivars, to prevent them from reseeding in the gardens and other areas in the landscape. Just snip the stalks below the seed-heads to maintain the foliage through the winter.

The only time when the grasses are not seen in the landscape is when the old foliage and flower stalks are pruned back in height in late winter (late February to early March) to early spring (late March) before new growth begins. Trim the short grasses to about 3 to 4 inches, medium-height grasses to 4 to 8 inches, and the tall grasses to 8 to 12 inches. For pruning the large grasses used as screens, hedge shears or even a chain saw are used.

Screens

The numerous *Miscanthus*, eulalia grass, cultivars are commonly used in the middle to back of perennial borders or as specimen plants tucked into a shrub border. *M. sinensis* 'Gracillimus' is often used in a mass planting, has finer texture than other cultivars of *Miscanthus* and moves freely in the breeze. It can be used in groupings of three to five plants, depending on the size of the bed, to give the feel of a fountain. *Miscanthus* cultivars and ravenna grass, *Erianthus ravennae*, can be used to screen utility boxes, dog pens, compost piles or other unsightly structures. These taller grasses can also be used for structure in or background of a perennial border. (NOTE: Sometimes ravenna grass is sold as pampas grass or northern pampas grass. It may be mislabeled as *Cortaderia selloana*, pampas grass. The true *Cortaderia* is marginally hardy in U.S.D.A. Hardiness Zone 7 and is hardier further south. These two plants may be difficult to tell apart when sprouting in the nursery container and not in bloom.)

***Grasses for screening*:**
Arundo donax, giant reed grass
Calamagrostis acutiflora, feather reed grass
Erianthus ravennae, ravenna grass
Miscanthus cultivars, eulalia grass
Panicum virgatum, switch grass

Ground Covers

The shorter perennial grasses can be used as edging or ground covers. *Acorus* and *Festuca* do not spread rapidly and need to be planted at high density. On the other hand, *Liriope* and *Phalaris* cultivars spread rapidly by rhizomes.

***Grasses as ground covers*:**
Acorus cultivars, sweet flag
Carex cultivars, Japanese sedges
Deschampsia caespitosa, tufted hair grass
Festuca ovina glauca, blue fescue
Liriope muscari, lily turf
Ophiopogon cultivars, mondo grass
Phalaris arundinacea picta, ribbon grass

Colorful Foliage

Many of the variegated grasses provide contrast against the dark-green foliage of shrub borders. Yellow or white variegated grasses can brighten an otherwise dark corner in the landscape. Use of color can add perspective to the perennial border or bed: reds and yellows will give the illusion of being closer, while blues will provide distance. Therefore, to add depth to a garden, place blue or gray-toned ornamental grasses where they enhance the illusion of distance such as at the far end of the view. Yellow or red foliage used near an entrance will draw attention to the entrance and give the illusion of being closer.

Grasses with colorful foliage:
Blue:
Elymus glaucus, blue lyme grass
Festuca cultivars, blue fescue
Helictotrichon sempervirens, blue oat grass
Panicum virgatum 'Heavy Metal', switch grass

Red:
Imperata cylindrica rubra, Japanese blood grass
Panicum virgatum 'Rehbraun', red switch grass
Panicum virgatum 'Rubrum', red switch grass

Grasses with variegated foliage:
Acorus gramineus 'Ogon' and 'Variegatus'
Arundo donax 'Variegata'
Carex elata 'Bowles Golden'
Carex morrowii 'Aureo-variegata'
Hakonechloa macra 'Aureola'
Liriope muscari 'Silver Dragon' & 'Variegata'
Miscanthus cultivars
Phalaris arundinacea picta

Special Uses

Ease of maintenance and robust characteristics allow ornamental grasses to be used in difficult sites. Grasses are adaptable to different soil types. However, some of the dense, clumping grasses, such as *Arundinaria* species and *Cortaderia selloana,* can succumb to poor drainage, especially in the winter. Yet other ornamental grasses work well along ponds, or in shallow water and bogs. Try *Arundo donax* along large ponds; *Juncus* and *Carex* are great for smaller yard ponds. Others (*Andropogon gerardii, Bouteloua gracilis, Elymus arenarius, Helictotrichon sempervirens*) handle the heat associated with pavement; use them in driveway islands or curb plantings. Ornamental grasses are also used to stabilize slopes. Those that spread by means of stolons or rhizomes offer great alternatives to other ground covers. Grasses such as ribbon grass (*Phalaris arundinacea*) and blue lyme grass (*Elymus arenarius,* syn. *Leymus arenarius*) can spread quickly. In fact, some of these are so aggressive they should be used in perennial borders only if contained within sunken pots (with drainage).

The *Dictionary of Ornamental Grasses and Grass-Like Plants* follows and provides information on adaptation to various landscape uses. Some species have many cultivars that would be especially adapted for different uses. New cultivars arrive on the market each year. Experiment with different grasses and learn how to use them in the landscape.

***Grasses for dry sites*:**
Andropogon gerardii, big bluestem
Bouteloua species, grama grasses
Deschampsia species, hair grass
Eragrostis species, love grass
Muhlenbergia species, muhly grass
Pennisetum cultivars, fountain grass

Grasses for difficult slopes:
Elymus arenarius, blue lyme grass
Equisetum hyemale, scouring rush
Miscanthus sacchariflorus, silver banner grass
Phalaris arundinacea picta, ribbon grass

Turf type	Height	Flower season	Form[1]	Uses[2]
***Annuals* (height given in inches)**				
Agrostis nebulosa, cloud grass				
warm	18"	Aug - Oct	UO - OS	S, PSh, Sh, G, E, RG, DF
Briza maxima, great quaking grass				
cool	24"	April - May	T	S, G, GC, DS, DF
Briza minor, little quaking grass				
cool	9 - 12"	April - May	T - UO	S, G, GC, DS, DF
Coix lacryma-jobi, Job's tears				
warm	24 - 36"	June - July	UA	S, G, GC, MS, DF
Cymbopogon citratus, lemongrass				
warm	36 - 48"	Aug - Oct	UN	S, Sp, G
Eragrostis curvula, African or weeping love grass				
warm	36 - 60"	June - Aug	T - UA	S, Sp, G, DS, N
Hordeum jubatum, squirrel tail barley				
cool	18 - 24"	June - July	UO	S, G, DS, MS DF
Lagurus ovatus, hare's tail grass				
warm	12 - 18"	June - July	UO	PSh, Sp, G, E, RG, DF
Muhlenbergia rigens, deer grass				
cool	3 - 4'	June - Aug	T - M	S, G, M, DS
Pennisetum setaceum (*P. ruppelii, P. ruppelianum*), fountain grass				
warm	48"	Aug - Oct	UA - UO	S, Sp, G, DS, RG, FC, N

[1]Form: M = mound; OS = open-spreading; T = tufted; UA = upright-arching; UN = upright-narrow; UO = upright-open
[2]Uses: S = sun; PSh = partial shade; Sh = shade; Sp = specimen; G = groups; M = massing; Sc = screen; GC = ground cover; E = edging; DS = dry soil; RG = rock garden; FC = fall color; DF = decorative flowers; N = naturalizing; BW = bog/water plant

Turf type	Height	Flower season	Form[1]	Uses[2]
Pennisetum villosum, feather top				
warm	24"	Aug - Oct	UA - UO	S, Sp, G, DS, RG
Rhynchelytrum repens, natal grass				
warm	24 - 30"	June - July	UA - UO	S, Sp, G, M, MS
Vetiveria zizanioides (syn. *Phalaris zizanioides*), vetiver grass				
warm	48 - 72"	Aug - Sept	UO	S, Sp, G, MS, BW
***Perennials* (height given in feet)**				
Andropogon gerardii, big bluestem				
warm	4 - 7'	Aug - Sept	UO - UA	S, G, M, Sc, DS, DF, N
Arundo donax, giant reed grass				
warm	9 - 12'	Aug - Oct	UA - UO	S, Sp, Sc, DF
A. donax 'Variegata', striped giant reed grass				
warm	5 - 7'	Aug - Oct	UA - UO	S, Sp, Sc
Bouteloua gracilis (syn. *Chondrosum gracile*), blue grama grass, mosquito grass				
cool	0.5 - 2'	June - Sept	T - UO	S, E, DS, RG, N
Briza media, quaking grass				
cool	2 - 3'	June - Aug	UO	S, M, N, RG, DF
Calamagrostis acutiflora stricta (syn. *C. acutiflora* 'Stricta'), feather reed grass				
cool	5 - 7'	June - July	UA - UN	S, G, M
Calamagrostis x *acutiflora brachytricha*, Korean reed grass				
cool	2 - 3'	June - July	UA- UN	S, G, M
Deschampsia caespitosa (syn. *Aira caespitosa*), tufted hair grass				
cool	1.5 - 3'	June - Aug	T - M	S, PSh, Sp, G, MS, DF, N, BW

[1]Form: M = mound; OS = open-spreading; T = tufted; UA = upright-arching; UN = upright-narrow; UO = upright-open
[2]Uses: S = sun; PSh = partial shade; Sh = shade; Sp = specimen; G = groups; M = massing; Sc = screen; GC = ground cover; E = edging; DS = dry soil; RG = rock garden; FC = fall color; DF = decorative flowers; N = naturalizing; BW = bog/water plant

Turf type	Height	Flower season	Form[1]	Uses[2]
Elymus glaucus (syn. *Leymus secalinus*), blue lyme grass or blue wildrye				
cool	2 - 4'	June - July	T - OS	S, Sp, G, GC, DS, N
Erianthus ravennae (syn. *Saccharum ravennae*), ravenna or northern pampas grass				
warm	9 - 12'	Aug - Oct	UO	S, Sp, G, Sc, MS, DF
Festuca ovina glauca, blue fescue				
cool	0.5 - 1'	April - May	T - M	S, M, E, G, RG, GC
Hakonechloa macra 'Aureola', golden variegated hakonechloa, hakone grass				
cool	1 - 2'	Aug - Oct	M	PSh, Sp, G, M, GC, E
Helictotrichon sempervirens, blue oat grass				
cool	2'	June - July	T	S, G, M, RG, FC
Imperata cylindrica rubra, Japanese blood grass				
warm	1 - 2'	Aug - Oct	M - OS	S, PSh, G, M, RG, FC
Miscanthus sinensis, eulalia grass				
warm	6 - 8'	Aug - Oct	UO	S, PSh, G, M, Sc, N, MS, FC, DF
Miscanthus sinensis 'Gracillimus', maiden grass				
warm	5 - 8'	Aug - Oct	UA	S, Sp, G, Sc, MS, FC, DF
Miscanthus sinensis 'Purpurascens'				
warm	3 - 4'	Aug - Oct	UN - UO	S, Sp, G, Sc, MS, DF
Miscanthus sinensis 'Silberfeder', silver feather grass				
warm	6 - 9'	Aug - Oct	UA	S, Sp, G, Sc, MS, DF
Miscanthus sinensis 'Variegatus', variegated eulalia grass				
warm	5 - 7'	Aug - Oct	UO	S, PSh, G, Sc, MS, DF

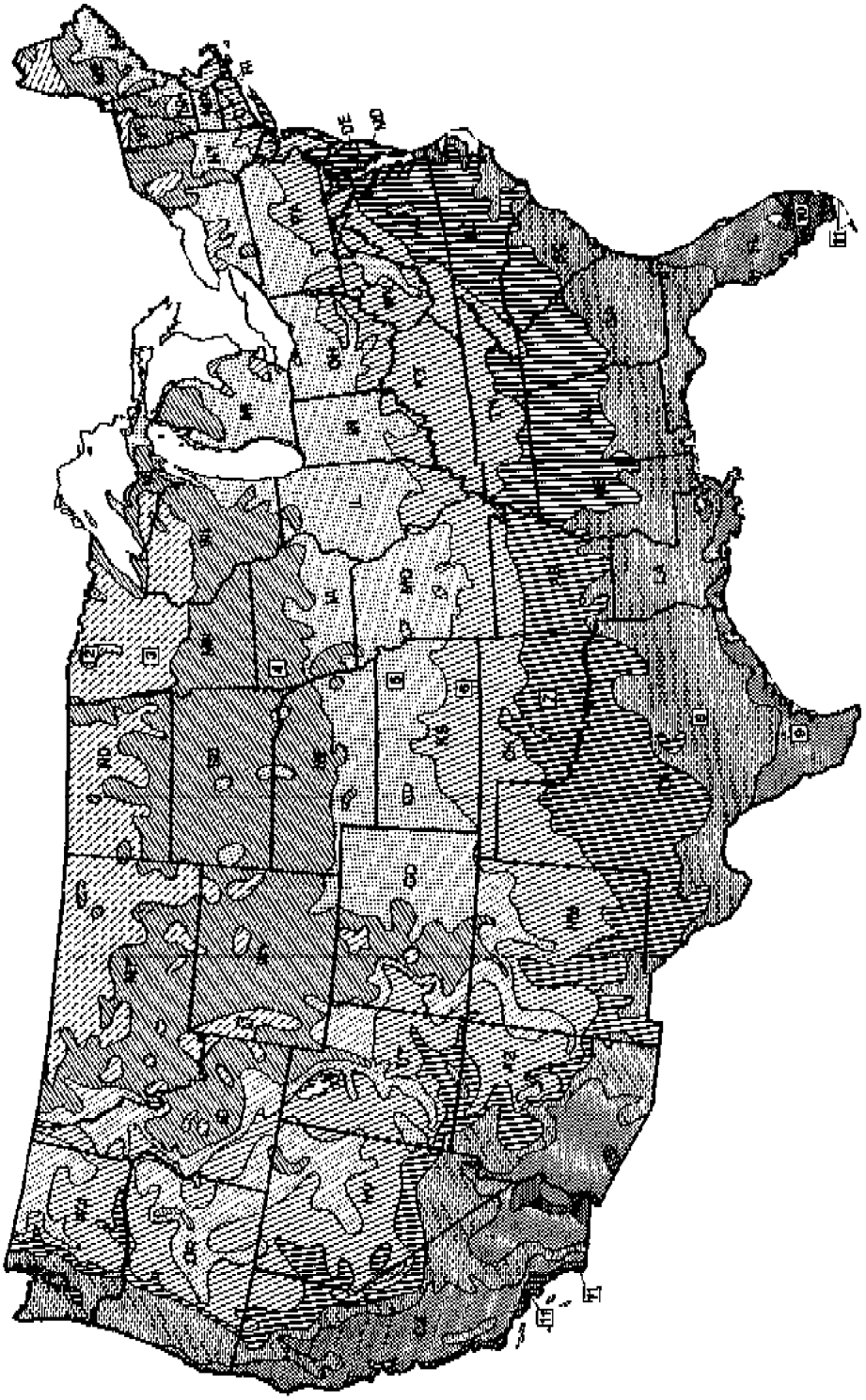
[1]Form: M = mound; OS = open-spreading; T = tufted; UA = upright-arching; UN = upright-narrow; UO = upright-open
[2]Uses: S = sun; PSh = partial shade; Sh = shade; Sp = specimen; G = groups; M = massing; Sc = screen; GC = ground cover; E = edging; DS = dry soil; RG = rock garden; FC = fall color; DF = decorative flowers; N = naturalizing; BW = bog/water plant

Turf type	Height	Flower season	Form[1]	Uses[2]
Miscanthus sinensis ‘Zebrinus’, zebra grass				
warm	6 - 8'	Aug - Oct	UN - UO	S, Sp, G, Sc, MS, DF
Molinia caerulea, purple moor grass				
cool	2'	Aug - Oct	T - UA	S, PSh, Sp, G, M, GC, MS, RG, FC
Panicum virgatum, switch grass				
warm	5 - 8'	Aug - Oct	UN - UO	S, G, M, Sc, MS, FC, N
Pennisetum alopecuroides, Australian fountain grass				
warm	3 - 4'	June - Oct	M - UA	S, Sp, G, M, RC, FC, DF, N
Pennisetum orientale, Oriental fountain grass				
warm	2 - 3'	Aug - Oct	T	S, G, M, N
Phalaris arundinacea picta, ribbon grass, gardener’s garter’s				
cool	2 - 3'	June - July	OS - UO	S, PSh, M, G, GC, MS, FC, N
Schizachyrium scoparium, little blue stem				
warm	3'	Aug - Oct	UA - UN	S, G, M, DS, FC, N
Stipa gigantea, giant feather grass				
cool	4 - 6'	June - July	T	S, Sp, G, GC, DS
***Grass-like Plants* (height given in inches)**				
Acorus gramineus ‘Ogon’, golden Japanese sweet flag				
cool	10" - 12"	Insignificant	T	PSh, Sh, G, GC, E, MS, BW
Acorus gramineus ‘Variegatus’, white Japanese sweet flag				
cool	6" - 12"	Insignificant	T	PSh, Sh, G, GC, E, MS, BW

[1]Form: M = mound; OS = open-spreading; T = tufted; UA = upright-arching; UN = upright-narrow; UO = upright-open
[2]Uses: S = sun; PSh = partial shade; Sh = shade; Sp = specimen; G = groups; M = massing; Sc = screen; GC = ground cover; E = edging; DS = dry soil; RG = rock garden; FC = fall color; DF = decorative flowers; N = naturalizing; BW = bog/water plant

Turf type	Height	Flower season	Form[1]	Uses[2]
Carex elata ‘Bowles Golden’ (syn. *C. stricta*), Bowles golden grass				
cool	24" - 36"	Insignificant	M - T	Sh, PSh, G, M, GC, MS, RG, BW
Carex morrowii ‘Aureo-variegata’, variegated Japanese sedge, golden Morrow’s sedge				
cool	12" - 18"	Insignificant	M - T	Sh, PSh, G, M, GC, MS, RG, BW
Equisetum hyemale, scouring rush				
warm	18" - 48"	Insignificant	UN	S, PSh, M, MS, N, BW
Juncus effusus, common rush				
warm	12" - 36"	Insignificant	UN	S, Sh, G, MS, N, BW
Liriope muscari, lily turf				
warm	12" - 18"	Aug	M	S, PSh, Sh, G, M, E, GC, DS, MS, N
Ophiopogon japonicus, mondo grass				
warm	3" - 12"	July	T	PSh, G, GC, E, MS
Ophiopogon planiscapus ‘Arabicus’, black mondo grass				
warm	6"	July	T	S, PSh, Sh, GC, E, MS
Sisyrinchium angustifolium, blue-eyed grass				
warm	4" - 8 “	May	T	S, PSh, G,E, DS, MS, RC, N, BW

[1]Form: M = mound; OS = open-spreading; T = tufted; UA = upright-arching; UN = upright-narrow; UO = upright-open
[2]Uses: S = sun; PSh = partial shade; Sh = shade; Sp = specimen; G = groups; M = massing; Sc = screen; GC = ground cover; E = edging; DS = dry soil; RG = rock garden; FC = fall color; DF = decorative flowers; N = naturalizing; BW = bog/water plant



USDA Plant Hardiness

PB1626-3M-6/99 E12-2015-00-206-99

The Agricultural Extension Service offers its programs to all eligible persons
regardless of race, color, age, national origin, sex, disability, religion or veteran status
and is an Equal Opportunity Employer.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
The University of Tennessee Institute of Agriculture, U.S. Department of Agriculture,
and county governments cooperating in furtherance of Acts of May 8 and June 30, 1914.
Agricultural Extension Service
Billy G. Hicks, Dean