
LANDSCAPE GRASSES

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Landscape grasses have been used in Europe and Asia for centuries, but only recently have they enjoyed popularity in North America, primarily due to the efforts of grass champions such as Kurt Bluemel, Wolfgang van Oehme, and John Greenlee. Landscape grasses are commonly sold in the perennial section of garden centers and are being used extensively in landscape plantings, perennial borders, highway plantings and large commercial sites.

Many characteristics make grasses desirable for landscape plantings. Grasses have more than one season of interest: the flowers of summer turn into interesting seed heads that are beautiful through fall and into winter, the foliage is attractive whether it is green, yellow, blue, red or variegated, and the movement of the foliage in the wind is a sight to behold. Culturally, many grasses are easy to grow and maintain, as they have few insect or disease problems and they have low nutrient requirements.

Landscape Grasses

True grasses are members of the plant family Gramineae, but generally more than true grasses are used as landscape grasses. Sedges, rushes and bamboo are also considered part of the group of landscape grasses. Grass-like plants, such as Hemerocallis (daylilies), Phormium (New Zealand flax) and even Yucca can be classified as landscape grasses.

In general, landscape grasses are grasses and grass-like plants that are used primarily for aesthetic and site stabilization purposes. They are a large and complex group of plants with a wide range of habitat, culture and use.

Growth of Grasses

Landscape grasses grow as perennials or annuals. Annual grasses live a complete life cycle in one year or one season. Many perennial grasses that are not hardy in Minnesota are being used as annuals in the bedding plant industry. Although they do not complete their life cycle in one year, they will freeze and die with fall frosts, effectively making them an annual. Some examples of commonly used annual grasses in Minnesota include Pennisetum setaceum 'Rubrum' (Purple Fountain Grass), and Scirpus cernuus (Fiber Optic Grass). Annual grasses are used

in the landscape and in garden beds as well as vertical accents in container plantings.

Perennial grasses live and grow for more than two seasons. Many perennials are long-lived, persisting for decades. They can be herbaceous, woody or semi-woody. Many grasses are perennial in one climate and annual in others.

Seasons of Growth – Grasses are classified as either warm-season or cool-season species, depending on when they are in an active growth phase. Warm-season grasses grow when temperatures begin to warm in spring. They flower and set seed in summer and fall, and go dormant with the onset of winter. Cool-season grasses begin growth in early spring. They flower from early spring into early summer, and go dormant or are slow growing in summer. They resume active growth with cooler fall temperatures.

Growth Habit – Two types of growth habits characterize grasses. "Running grasses" spread by creeping stems or rhizomes, forming dense mats. Many running grasses can be very invasive. "Clumping grasses" grow in tufts, slowly increasing in size. There is a place for both types in the landscape.

Grass Form – Grasses also exist in many shapes and sizes. There are six primary categories used to define the shapes of grasses. These categories describe the form of the foliage, not the flowering stems or seed heads.

1. Tufted: Spiky foliage that can be fine textured with upright leaves that arise from a basal clump. Example: Festuca (Blue Fescue).
2. Mounded: Mounding foliage that weeps wherein the top growth covers the lower leaves. Example: Pennisetum alopecuroides (Fountain Grass).
3. Upright: Erect foliage that grows vertically. Example: Calamagrostis acutiflora 'Karl Foerster' (Feather Reedgrass).
4. Upright Divergent: Foliage grows up and out in an erect or stiff manner. Example: Helictotrichon (Blue Oat Grass).

5. Upright Arching: Foliage grows upright and then becomes fountain like at the top. Example: Miscanthus ‘Silberfeder’ (Silverfeather Miscanthus).
6. Arching: Foliage arches up and out, in somewhat equal proportion. Example: Sporobolus heterolepis (Prairie Dropseed).

Designing with Landscape Grasses

Grasses are wonderfully diverse, and offer a myriad of possibilities for landscape design. They are probably most effective when combined with other perennials, annuals, trees and shrubs. Their vertical form, interesting flowers and seed heads, winter interest, color, and texture add variety to the landscape.

Grasses can be used as textural accents in the landscape. Their linear form, their fine or coarse texture, and their color contrast blend with perennials and woody plants. The play of light on grasses is an added element that can be delightful. Grasses can be used individually or in large sweeps or masses to play upon their design strengths.

Planting Landscape Grasses

When to Plant – Most grasses are best planted in early spring, so that they establish a root system before the heat of summer. Fall planting can be successful if container plants are used, but winter protection may be necessary in some cases.

Soil – Most grasses can grow in most soil types, but grow best in a soil that is rich in organic matter and is well drained. Many grasses will not grow well with high fertility as too much nitrogen results in tall, floppy plants, which are not desirable in the landscape.

Spacing – Spacing of plants will depend on the species chosen, the desired landscape effect, and the plant’s setting. In many cases, it is a matter of personal taste rather than following a hard and fast rule. It is important to know the mature height and width of the grass species when making spacing decisions.

Planting – When planting grasses, avoid planting too deeply or too shallow. Observe the crown line and place it at the soil line. Many grasses will not tolerate being planted too deeply. Water newly planted grasses immediately, and monitor water needs throughout the growing season.

Mulching – Landscape grass plantings will benefit from an application of an organic mulch such as wood chips, bark chunks or cocoa bean mulch to help keep the soil cool and moist. These products also

suppress weeds. Most grasses will grow best with a two-inch or three-inch layer of mulch over the soil surface.

Maintenance of Landscape Grasses

Most landscape grasses require relatively low maintenance, but some cultural practices and basic maintenance is required.

Watering – Once plants are rooted in and established, adjust watering levels to the requirements of the grass plant based on soil type. In the Midwest, grasses do not need great quantities of supplemental water, as many are quite drought tolerant.

Pruning – Probably the most important maintenance aspect of grasses is to cut back the foliage at least once a year. Cutting back substitutes for the natural process of burning that takes place in prairies and grasslands. Cut back landscape grasses just before, or as the new season’s growth begins to appear in early spring. This will allow enjoyment of the grasses during the previous winter, yet allow clean up of the garden in early spring. Most grasses should be cut back to within a few inches of the ground. However, cool-season grasses should not be sheared too closely. Generally, cut back cool-season grasses to about two thirds of their mature size.

Propagation and Transplanting Landscape Grasses

Grasses are propagated mainly by two methods: seed and division. Named cultivars are propagated by division to ensure uniformity. Seed-grown varieties may show some natural variation, but variation can have a positive effect, depending on the end use.

Grasses can be divided, and should be divided for many reasons. Division can be used to propagate more plants, to renew existing overgrown clumps, or to relocate improperly placed plants. Warm-season grasses are best divided in early spring, and cool-season grasses can be divided in fall and early spring. It is best to divide grasses just when the plant is starting to actively grow. When dividing grasses, cut back the foliage by one fourth to one third to help reduce loss of moisture through transpiration. Always keep newly divided plants moist and shaded until they are replanted.

Insects and Diseases of Landscape Grasses

Generally, grasses are free of pest and disease problems. Potential insect pests include mealy bugs and aphids, which can be easily controlled. Rust is a fungal disease that can infect some landscape grasses, showing up as orange spots on the foliage. Rusts can be prevented with periodic applications of sulfur and other fungicides, but also by watering with drip irrigation rather than overhead irrigation.

Functional Characteristics of Landscape Grasses

1. Grass with Fall Color and Winter Interest.
Calamagrostis x acutiflora ‘Karl Foerster’ (Feather Reedgrass)
Calamagrostis brachytricha (Fall Blooming Reedgrass)
Miscanthus floridulus (Giant Miscanthus)
Miscanthus sacchariflorus (Chinese Silvergrass)
Miscanthus sinensis ‘Purpurascens’ (Red Flame Miscanthus)
Miscanthus sinensis ‘Silberfeder’ (Silverfeather Miscanthus)
Molinia caerulea and all other cultivars (Moorgrass)
2. Grasses Grown as Annuals.
Arundo donax (Giant Reed)
Carex morrowi ‘Old Gold’ (Yellow Variegated Sedge)
Carex morrowi ‘Variegata’ (Variegated Sedge)
Carex ‘Toffee Twist’
Eragrostis trichodes (Lovegrass)
Hakonechloa macra aurea (Golden Hakonechloa)
Imperata cylindrica ‘Red Baron’ (Japanese Bloodgrass)
Pennisetum glaucum ‘Purple Majesty’ (Purple Majesty Millet)
Pennisetum orientale (Oriental Fountain Grass)
Pennisetum setaceum ‘Rubrum’ (Purple Fountain Grass)
Pennisetum setaceum ‘Burgundy Giant’
Pennisetum setaceum ‘Red Riding Hood’
Scirpus (Fiber Optic Grass)
3. Grasses for Water Gardens and Wet Sites.
Acorus calamus and A. calamus ‘Variegatus’ (Sweet Flag)
Juncus effuses (Common Rush)
Miscanthus floridulus (Giant Miscanthus)
Miscanthus sacchariflorus (Chinese Silvergrass)
Miscanthus sinensis ‘Purpurascens’ (Red Flame Miscanthus)
Miscanthus sinensis (Most cultivars)
Panicum virgatum (Switchgrass)
Phalaris arundinacea ‘Picta’ (Ribbongrass)
Phalaris arundinacea ‘Feeseys Form’ (Strawberries and Cream Ribbongrass)
Spartina pectinata (Cordgrass)
Spartina pectinata ‘Aureo-Marginata’ (Variegated Cordgrass)
4. Grasses and Grass-Like Plants for Light to Medium Shade.
Acorus gramineus and its cultivars (Grassy-Leaved Sweet Flag)
Arrhenatherum bulbosum ‘Variegatum’ (Variegated Bulbous Oat Grass)
Briza media (Quacking Grass)

- Calamagrostis x acutiflora ‘Karl Foerster’ (Feather Reedgrass)
Calamagrostis x acutiflora ‘Overdam’ (Variegated Feather Reedgrass)
Calamagrostis brachytricha (Fall-Blooming Reedgrass)
Carex flacca (Blue Sedge)
Carex grayii (Gray’s Sedge)
Carex morrowi ‘Ice Dance’ (Variegated Japanese Sedge)
Carex nigra (Black-Flowering Sedge)
Carex nigra ‘Variegata’ (Variegated Black-Flowering Sedge)
Carex muskingumensis (Palm Sedge)
Carex pendula (Drooping Sedge)
Carex plantaginea (Plantain-Leaved Sedge)
Carex siderostica ‘Variegata’ (Variegated Broad-Leaved Sedge)
Chasmanthium latifolium (Northern Sea Oats)
Deschampsia cespitosa and its cultivars (Tufted Hair Grass)
Festuca gigantea (Giant Fescue)
Hakonechloa macra and its cultivars (Japanese Forest Grass)
Hystrix patula (Bottlebrush Grass)
Juncus effuses (Soft Rush)
Leymus arenarius and its cultivars (Blue Lyme Grass)
Luzula nivea (Snowy Woodrush)
Miscanthus sinensis ‘Purpurascens’ (Red Flame Miscanthus)
Miscanthus sinensis ‘Variegatus’ (Variegated Japanese Silver Grass)
Molinia caerulea ‘Variegata’ (Variegated Moor Grass)
Phalaris arundinacea and its cultivars (Ribbon Grass)
Sesleria autumnalis (Autumn Moor Grass)
Sesleria caerulea (Blue Moor Grass)
Spodiopogon sibiricus (Silver Spike Grass)

Table 1. Description and characteristics of Landscape Grasses.				
Botanical Name	Common Name	Height	Season of Interest	
Notes				
<i>Acorus calamus</i>	Sweet Flag	2-4'	June-Frost	Tolerates shade; usually grown in water.
<i>Acorus calamus</i> 'Variegatus'	Variegated Sweet Flag	2-3'	June-frost	Tolerates shade; usually grown in water.
<i>Arrhenatherum elatius</i>	Variegatum' Bulbous Oatgrass	8-12"	June-October	Slow growing; tolerates poor and dry soils.
<i>Calamagrostis x acutiflora</i> 'Karl Foerster'	Karl Foerster Feather Reedgrass	4 1/2'	July-Winter	Stiff, upright flowers are pink in July, turning beige by August. Wheat-like appearance.
<i>Calamagrostis x acutiflora</i> 'Overdam'	Overdam Variegated Feather Reedgrass	4'	July-Winter	Creamy white stripes in the leaves.
<i>Calamagrostis brachytricha</i>	Fall Blooming Reedgrass	4'	September-Winter	Pink and purple flowers in September. Beautiful in fall.
<i>Deschampsia caespitosa</i>	Tufted Hairgrass	3 1/2'-4'	June-October	Large beige flowers make a soft mound of 'hair' above almost evergreen foliage. Prefers moist and shady sites; can be difficult to establish in full sun. Cultivars include: 'Bronzeschleier', 'Goldgehaenge', 'Scotland'.
<i>Festuca cinerea</i> 'Elijah Blue'	Blue Fescue	8-10"	Year Around	Forms a dense, finely textured mound of short blue foliage that retains color through much of the winter. Tan or beige flowers are borne above the foliage. Other cultivars available include 'Siskiyou Blue' and 'Boulder Blue'. Best in well drained, dry soils.
<i>Helictotrichon sempervirens</i>	Blue Oatgrass	2-3'	Year Around	Forms a mound of foliage slightly larger than Festuca. More tolerant of heavy soils, prefers full sun and good drainage. Another cultivar includes 'Sapphire.'
<i>Juncus effusus</i>	Common Rush	2 1/2'	June-October	Common in swamps and wetlands.
<i>Leymus arenarius</i> (Elymus)	Blue Lyme grass	24-30"	June-November	Coarse blue foliage; irregular growth habit and invasive rhizomes. Can be used along lake or sea shores. Heavy soils confine rhizomes.
<i>Miscanthus floridulus</i>	Giant Miscanthus	8-10'	June-Winter	Huge, bamboo-like, long coarse leaves; rarely flowers.
<i>Miscanthus sacchariflorus</i>	Chinese Silvergrass	6-8'	August-Winter	Invasive rhizomes, hardy in Zone 3. Naturalized in ditches and waste areas in the Midwest.

