

Ornamental grasses are gaining popularity due to their low nitrogen/pesticide needs and drought tolerance. They also work well in all kinds of settings.

BY JOHN C. FECH, University of Nebraska mamental grasses are being incorporated into landscapes because they tolerate or even benefit from lower application rates of nitrogen and pesticides. They also show good drought tolerance, are resistant to most diseases and insect pests.

Ornamental grasses vary in size, shape, color and texture in both foliage and inflorescence (seed head formation). Grass forms vary from low mounding to fountain



Foliage colors include shades of green, yellow, blue, red, brown and variegated

shaped to upright.

Many of the grasses change from a green summer color to various autumn displays of straw yellow, orange, red or purple. The inflorescence can vary in size and color as well, and add considerable visual appeal to a landscape.

Planting and installation

As with most plant materials, success depends greatly on soil preparation before planting. Ideally, the planting area should be prepared in the fall, beginning with a thorough rototilling to allow for adequate moisture penetration. Fall tillage facilitates freezing and thawing action during the winter, and improves soil tilth and workability. Fall is also the best time to test the soil, to determine nutrient needs, pH adjustments and organic matter needs.

Based on the soil test, modify the soil to bring the pH to a range of 5.5 to 7.5 and the organic matter content to three- to five-percent. Add sulfur or limestone to adjust the soil pH. Incorporate them to a depth of 12 inches in the fall, to allow necessary chemical reactions to occur before planting in the spring.

A compost made of equal amounts of greens (grass clippings, green trees and shrubs), and browns (sawdust, brown trees and shrubs, leaves, fallen pine needles, etc.) will moderate sandy, excessively drained soils and poorly drained clay content soils. Regardless of soil type, ornamental grasses will grow vigorously after thorough incorporation of quality compost. As with sulfur and limestone, the soil test will indicate the amount of compost to incorporate. If compost is not readily available, shredded leaves, rice hulls, cottonseed hulls, reed sedge peat moss, Canadian peat moss and earthworm



castings are reasonable alternatives. Plant in spring or fall

Ornamental grasses can be planted in spring or fall. An advantage of spring planting is to give adequate time for a root system to develop before winter. The down side is the potential for annual grass and annual broadleaf competition, however this can be reduced through mulching with shredded bark or wood chips. Plants should be planted no deeper than their previous growing depth. Plants positioned too deeply tend to develop root diseases or simply rot in the ground. Grasses should be well-watered at the time of planting.

Maintenance of ornamental grasses

Ornamental grasses require minimal care. Most species are insect and disease resistant. However, improperly sited plants may become infected due to poor air movement, high nitrogen soils or inadequate light. As ornamental grasses become more common, pest problems may develop. At that point, cultivar selection based on pest resistance will become important. Fertilization: Ornamental grasses require relatively low levels of fertility for best performance. Landscape managers and golf course superintendents should keep N levels low to prevent lodging or flopping and the need for staking. Leaf color and vigor are a guide to nitrogen requirements. If the leaf blade isn't a normal green color, you may need to apply nitrogen.

Irrigation: Newly-planted grasses need a moist root zone until a mature root system develops. An extensive root system can ex Ornamental grasses are used in a residential setting.

tract sufficient water to maintain the plant during periods of drought. Once the grasses mature, the frequency and quantity of water needed will vary with grass species and site characteristics (soil, heat, wind, etc.). The amount of water applied will also depend on quality, size, and growth rate desired. Consider drip irrigation on specimen plants to reduce the likelihood of foliar disease. Be careful not to overwater drought tolerant grasses.

Weed control: Broadleaf weeds are more easily controlled near ornamental grasses than undesirable grass (bromegrass, orchardgrass) or grass-like weeds. Select an appropriate herbicide to eliminate dandelions, plantain and other broadleaf weeds. Thoroughly read the label of a product such as Trimec to determine applicability. In an established ornamental bed, products such as Betasan, Ronstar and Surflan can be used to discourage annual grasses and broadleafs.

Because selective herbicides are not available for grassy weeds among ornamental grass plantings, weedy grasses must be eliminated before the site is planted. After establishment, mulch can suppress weed growth and reduce the need for chemical controls and/or hand weeding.

Seasonal preparation: Adapted orna-



Ornamental grasses are here used in a commercial setting.



Mix the grasses with other perennials for variety.

require mulching, especially in continental climatic areas.

In early spring, prior to new growth, remove the foliage from the past year. Foliage can be removed with hand clippers or with a weed whipper or other power tool, depending on the toughness of the foliage and the number or ornamental grasses. When foliage is removed spring growth will begin earlier. Foliage left on the plant will delay the crown's warming and subsequent growth by as much as three weeks.

Plant division depends on the spacing and visual appearance desired by the landscape manager, and the need for additional plants. If the center of the clump shows little or no regrowth, the plant should be divided. Separate and replant the vigorous growth on the outer edge of the clump. A typical ornamental grass plant can be divided into three or four sections, which can be replanted in the original space and in other landscape settings. \Box

Groundcovers, accents & texture

Ornamental grasses can have tremendous impact on how a landscape is viewed by passers by or used by recreational participants. Faced with hundreds of new choices, landscape designers are just now beginning to realize the potential of ornamental grasses.

There are no specific rules for how to use grasses in the landscape. Tall grasses can provide screening or shade. Short or miniature grasses make excellent groundcovers. Flowering grasses can be used as accents, either alone or in groupings, however the most impressive statement is made by massing them together.

Ornamental grasses have great potential for use when winter features are needed to add color and texture to an otherwise drab winter outdoor scene.

The most important consideration is the specific needs and characteristics of each plant: sun/shade, drainage, height, foliage color, habit. mental grasses don't require winter mulch. Check with local or state extension offices to determine adaptability and zone hardiness for localized planting areas.

Foliage left on the plant until early spring will insulate the plant from damaging temperature extremes. Extensive mulch covering methods can be used to protect specimens adapted to regions one or two zones of hardiness milder than yours. In addition, fall planted grasses may

When grasses get aggressive

Most ornamental grasses form clumps but there are some species which have invasive rhizomes. These grasses can be useful where ground covers or erosion control is desired, however, controlling these grasses can be difficult and cement barriers, pavement or other structural features are necessary to confine the spread. Aggressive species include:

blue lymegrass	Leymus arenarius (also Elymus arenarius)
cordgrass	Spartina pectinata
Chinese silvergrass	Miscanthus sacchariflorus
Feesey's form ribbongrass	Phalaris arundinacea 'Feesey's Form'
giant blue rye	Leymus racemosus (also Elymus giganteus)
ribbongrass	Phalaris arundinacea 'Picta'
yellow ribbongrass	Phalaris arundinacea var. luteo-picta
variegated cordgrass	Spartina pectinata 'Aureo-Marginata'

SOURCE: M.H. MEYER, D.B. WHITE AND H. PELLETT, ORNAMENTAL GRASSES FOR COLD CLIMATES, UNIVERSITY OF MINNESOTA, 1995, EXT. PUB. 573