



Ornamental Grasses

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Introduction

Ornamental grasses are popular for use in commercial and homeowner landscapes. Attractive foliage, showy flowers and distinctive seed heads make many annual and perennial grasses suitable for fresh and dried floral arrangements. Ornamental grasses can be added to an existing nursery operation or become the focus of a specialty nursery.

Marketing

Container-grown and bare-root ornamental grasses are produced by nurseries for several different markets.

► **RETAILERS** market directly to the end consumer, typically homeowners. This is most commonly done either through retail nurseries, which produce some or all of their own plant material, or garden centers, which purchase their inventory from a wholesale nursery. These businesses are located for convenient consumer access, usually near urban or high-traffic areas. A demonstration garden of ornamental grasses growing with other perennials often enhances retail sales. Ornamental grasses can also be sold at retail prices at local farmers markets. Materials used for floral arrangements are marketed to florists, craft stores or at farmers markets.

► **MAIL-ORDER NURSERIES** also sell directly to the end consumer, but their plants are shipped directly to the customer rather than sold at a retail outlet. This is a great option for nurseries that produce specialty plants and whose customers are plant enthusiasts located across the country or globe. Most plants sold via mail-order are smaller in size because of shipping costs.



Prairie dropseed, *Sporobolus heterolepis*

► **WHOLESALE** produce plants that are typically sold in large batches at significantly lower prices to landscapers, retailers or other nurseries that grow and resell the material at a larger size. Wholesale production is usually most efficient when a limited number of plant species are grown in large numbers.

► **RE-WHOLESALE** purchase large orders of various plants from wholesale producers and resell the plants to landscapers requiring diverse but smaller orders.



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►LANDSCAPE NURSERIES usually produce plants for their own in-house landscaping service, but some may have a retail outlet as well.

Licenses and Shipping Regulations

Any business that sells plants capable of overwintering outdoors must obtain a nursery or nursery dealer license. In addition, businesses that sell plants to out-of-state customers should also obtain a license, regardless of the plants' ability to overwinter. In Kentucky, these licenses are obtained from the Office of the State Entomologist. Additionally, shipment of plants or plant parts across state lines can, in many cases, require a Phytosanitary Certificate. A Phytosanitary Certificate is also required for most international shipments of plant material. Nurseries can contact the Office of the State Entomologist to determine if a certificate is needed and how it can be obtained. Be aware that certain non-native species of ornamental grass have been designated invasive and their sale in some states is regulated.

Market Outlook

The high demand for ornamental grasses is at least partially due to their problem-free, low-maintenance reputation. The diversity of plant material available, along with their unique visual quality, has added to their popularity. Use of ornamental grasses in commercial and home landscapes has generally increased over time; housing market downturns, including less new construction, affect sales volume of plant material used in landscaping. Selling only plants native to Kentucky or adapted to area growing conditions, as well as providing point-of-purchase information (such as brochures and growing guides), can be an effective strategy for increasing local sales. A marketing plan and strategy for ornamental grass production should account for broader economic cycles and the dynamics of the housing industry within the producer's target market.

Production Considerations

Plant selection

Plant material sold as ornamental grasses may include

sedges (Cyperaceae) and rushes (Juncaceae), as well as true grasses (Poaceae). There are hundreds of cultivars in these groups, including native tall prairie grasses such as switchgrass and big bluestem, as well as many introduced types. Species and cultivars vary in terms of plant height, growth habit, time of bloom, color of foliage and flowers, and life cycle (annual or perennial). Some ornamental grasses are invasive, either from underground rhizomes (such as ribbongrass) or from self-seeding (particularly some *Miscanthus sinensis* cultivars). Select species and cultivars that are adapted to local growing conditions, non-invasive, and in demand for the intended market.

Site selection, planting, and maintenance

Ornamental grasses are easily propagated by division for commercial production. Plants can be produced either in aboveground containers with soilless growing media or field-grown in a wide range of soil types. A sunny site with good air circulation and a slightly sloping topography is best for field production. Poorly drained sites and overwatering must be avoided. Lodging (plants falling over) is a common problem when grasses are produced under high fertility or excessive shade. Early season cutting or reduced fertilization may help eliminate this problem.

Many ornamental grasses are cut back to within a few inches of ground level either when growth browns in the fall or before the new season's growth appears in spring. Many people delay cutting back un-

til spring to enjoy the tendency of grasses to collect frost and snow during winter and provide habitat for animals, including pollinators. Evergreen types only require the removal of old flower stalks, but it may be aesthetically pleasing to remove older foliage just before new growth begins.

Pest management

Ornamental grasses are generally regarded as disease-free and insect-free in landscapes; however, some pest problems occasionally appear in commercial production. Insect and disease management requires In-



Feather reed grass, *Calamagrostis* × *acutiflora* 'Karl Foerster'

egrated Pest Management (IPM) strategies, such as scouting, selecting resistant species or cultivars, and practicing best management practices. Weeds, which are of particular concern in ornamental grass production, can be controlled in nurseries using a combination of methods such as hand-weeding, mowing, mechanical cultivation, mulching, laying ground cloth, planting cover crops, and applying selected herbicides.

Harvest

The time needed for plants to reach a saleable size varies; however, some grasses can grow to marketable size within 12 weeks. In Kentucky, ornamental grasses are typically grown in containers. Plants can only be grown in a container for a limited period because roots eventually become constricted. If unsold plants are to be saved, they must be divided and repotted or transplanted to larger containers before they outgrow their current container. Field-grown plants may be sold as bare-root plants or transplanted into containers. However, field production of bare-root plants is not common in Kentucky. Soil type typically determines whether bare-root production is feasible.

Labor requirements

The level of management for container-grown plants is significantly higher than in field production. A common rule of thumb is to employ one worker per actual acre of container production or one employee per 7 to 8 acres of field production.

Economic Considerations

Ornamental grasses can be very profitable additions to an existing nursery operation. Compared to most other stock, ornamental grasses cost less to grow to a saleable size. This could create very attractive price premiums for the grower.

Because of relatively low production costs, pricing and marketing are the key economic elements in ornamental grass production. Novice customers will likely be unaware of the benefits, such as texture and movement, which ornamental grasses offer to landscapes.

This creates an opportunity for higher pricing points targeting experienced or more discriminating consumers. Ornamental grass growers should budget for additional marketing expenses and efforts to sell the product since ornamental grasses look quite different at maturity than they do at the time of planting.

University of Kentucky budget estimates show nearly identical total costs between in-ground and above-ground systems of ornamental grass production. The UK estimates indicate that producers able to utilize existing equipment and capital for in-ground ornamental grass production can realize up to 20 to 30 percent in variable cost savings compared to a container production system.

Selected Resources

- Kentucky Office of the State Entomologist (University of Kentucky) <http://www.uky.edu/Ag/NurseryInspection/>
- Getting Started in the Nursery/Landscape Industry (University of Kentucky) <http://www.ca.uky.edu/HLA/Dunwell/NIgetstart.html>
- Nursery Crop Extension Research (University of Kentucky) <http://nursery-crop-extension.ca.uky.edu>
- Ornamental Grasses for Kentucky Landscapes (University of Kentucky, 2006) <http://www.ca.uky.edu/agc/pubs/ho/ho79/ho79.pdf>
- Ornamental Grasses & Grass-like Plants (Clemson University, Revised 2017) <http://www.clemson.edu/extension/hgic/plants/landscape/flowers/hgic1178.html>
- Ornamental Grasses (University of Missouri Extension, 2006) <https://extension2.missouri.edu/G6661>
- Ornamental Grasses in the Landscape, PB-1626 (University of Tennessee, 2002) <https://utextension.tennessee.edu/publications/Documents/PB1626.pdf>

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