

Garden Mums

Introduction

The garden mum (*Chrysanthemum* spp.) is a popular herbaceous perennial flowering plant that is commonly grown for fall sales. While also referred to as ‘hardy mums,’ their actual hardiness outdoors (that is, their ability to survive the winter) can vary by cultivar, time of planting, and environmental conditions. Garden mums are generally container-grown in Kentucky, either in a greenhouse or outdoors in connection with a greenhouse business; there is also some field production in the state.

Marketing

Field-grown mums are limited to direct sales to the consumer since they are dug at the time of the sale. Container-grown plants, on the other hand, can be sold through garden centers, nurseries, landscapers, supermarkets, farm stores, roadside stands, farmers markets, and wholesale produce auctions. Retailers expect flowering garden mums to be available in mid- to late-August through mid-October. Early mums often receive a premium price. Producers can also explore opportunities for production of new or unusual mum varieties to differentiate their product in the local marketplace.

Market Outlook

A strong market exists for garden mums because garden centers desire an inexpensive flowering potted plant to accentuate fall landscape plant sales. Additionally, as the commercial landscape market



has expanded, the demand for flowering plants for fall use has increased.

Production Considerations

Cultivar selection

While most cultivars perform satisfactorily in Kentucky, certain types may perform better under some production conditions than others. Additionally, some cultivars are more desirable than others for early sales. Garden mum cultivars vary in plant size (from dwarf to very large), flower form (such as daisy-like, pompon, spider, spoon, and button), and flower color (various shades of yellow, pink, lavender, bronze, red, orange, salmon, and coral, as well as white). Select locally adapted varieties with the characteristics in demand for the intended market.

Propagation and general production

Garden mums are propagated by cuttings, which can be purchased from greenhouse plant supply companies or companies that grow garden mums. Cuttings are

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traditionally planted May 20 to July 10 for natural season flowering. Plants may require pinching.

CONTAINER-GROWN

Container-grown garden mums can be produced either outdoors or in greenhouses. Five hundred plants will require more than 1,000 square feet of production area. Any commercial growing media for greenhouse crops should be satisfactory for production in containers. Plants will need consistent and regular watering with a trickle or drip irrigation system once or twice every day; some growers are successful with overhead sprinklers. In addition, plants require fertilization every week or with every watering.

Outdoor production is not only cheaper than greenhouse production, but plants are also shorter and tougher when grown outdoors. Pots are set on a 4-inch lime rock base on top of a polypropylene ground cloth, or possibly on black polyethylene with suitable surface drainage. Indoor mum production usually requires growth retardant treatments for height control.

FIELD PRODUCTION

Field production requires good field soil with no agricultural herbicide residue. Soils should be suitable for digging the plants in the fall. Field mums will require watering with trickle or drip irrigation during typical Kentucky summers. Garden mums are heavy feeders and need regular fertilization.

Pest management

Insect pests, such as aphids, leafhoppers, grasshoppers and caterpillars, as well as spider mites, are relatively common on garden mums. Gray mold and bacterial leaf spot are the primary disease problems. Many grass and broad leaf weeds can be a problem in field production.

Labor requirements

Labor for the growing season is estimated at 289 hours, where 71% of the labor is provided by the owner. This figure is based on the outdoor production of 8,200 mums in containers.

Economic Considerations

Typical production costs for garden mum production include purchasing cuttings, fertilizer, soil, pots, and pesticides. Controlling production costs is the key to the profitable production of garden mums. Fixed costs vary depending on the production system used. Irrigation may be a significant fixed cost. The cost of installation of an irrigation system (pipe, emitters, time clock, solenoid, and fertilizer injectors) can be amortized over the five- to seven-year life of the system. If irrigation is not used, hand watering can be costly, adding another \$1 per pot for labor.

Profitability for field-grown mum production will vary considerably between producers. Total costs per pot, including labor and marketing, should fall near the \$3.00 range per pot for a production scale of 8,000 pots. Total costs for smaller producers may range higher depending on production efficiency.

Detailed garden mum production budgets were published for producers in Indiana and North Carolina in the 1990s; Kentucky producers may want to use these as a guide to estimating their own current production costs. Refer to the resource list, below.

Selected Resources

- Garden Mum Production for Fall Sales (University of Kentucky, 2002)
<http://www.uky.edu/Ag/HLA/anderson/gardenmums.pdf>
- Chrysanthemum – Commercial Greenhouse Production (Auburn University)
<http://www.ag.auburn.edu/hort/landscape/Potmum.htm>
- Chrysanthemum Diseases (Penn State)
<http://extension.psu.edu/plant-disease-factsheets/all-fact-sheets/chrysanthemum-diseases>
- Cost of Producing Containerized Garden Mums (North Carolina State University, 1996)
www.ces.ncsu.edu/depts/hort/floriculture/NCCFGA/pdf/bulletins/1996/Aug1996.pdf

- Cost of Production of Garden Mums in Containers (Purdue University, 1990)
<http://www.uky.edu/Ag/cdbrec/mumbudgets.htm>
- Crop Budgets for Producing Cuttings and Rooted Liner Trays (University of New Hampshire, 2001)
<http://ceinfo.unh.edu/Agric/AGGHFL/CutBudgt.xls>
- Fall Garden Mum Production in Alabama, ANR-1096 (Alabama Cooperative Extension Service, 1998)
<http://www.aces.edu/pubs/docs/A/ANR-1096/>
- Growing Garden Mums for Fall Production (University of Massachusetts, 2010)
<http://extension.umass.edu/floriculture/fact-sheets/growing-garden-mums-fall-sales>
- Guide to Successful Outdoor Garden Mum Production (North Carolina State University, 1998)
<http://www.ces.ncsu.edu/depts/hort/hil/pdf/hil-506.pdf>
- Interactive Greenhouse Crop Budget with Five Crops (Rutgers University, 2008)
<http://aesop.rutgers.edu/~farmmgmt/greenhouse/greenhouseinteractiveform.html>
- Optimizing Garden Mum Production (Cornell University, 2008)
<http://www.canadiangreenhouseconference.com/talks/2008/2008-TK-Bridgen.pdf>
- Understanding and Producing Chrysanthemums (Clemson Extension, 1995)
<http://virtual.clemson.edu/groups/psapublishing/Pages/Hort/HortLf65.pdf>
- Virtual Grower 3.0 (USDA)
<http://www.ars.usda.gov/services/software/download.htm?softwareid=309>

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For additional information, contact your local [County Extension](#) agent