

Ornamental Corn

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Introduction

Ornamental corn (*Zea mays*) production currently represents a new crop for Kentucky, in terms of limited University of Kentucky research. There are many kinds of ornamental corn, varying in ear size, kernel color, husk, and stalk color. Some cultivars have red or purple stalks and leaves that are sold for decorative purposes.

Marketing

Potential markets for ornamental corn include farmers markets, produce auctions, and roadside stands. Local retail markets, such as supermarkets, are also an option. In these markets, the corn is often sold in three-ear bunches. In addition, stores that specialize in decorative and craft items may present options for wholesale buyers. Some producers have discovered an opportunity delivering and setting up fall yard displays using corn and other fall ornamentals. Growers who host pumpkin tours, grow other fall crops, or have corn mazes should consider growing ornamental corn.

Market Outlook

Consumer spending for fall decorations now ranks just behind Christmas decorations in dollars; the average U.S. household spends about \$50 annually on fall decorations.

Spending on fall decorations persisted through a down economy, indicating consumers may view fall decorations as affordable



luxuries, even during difficult economic times. Convenient options for unique fall decorations are of particular consumer appeal.

Prices for bundles (three ears) of Indian corn at Kentucky produce auctions ranged from around \$0.50 to as much as \$1.75 in 2013. Wholesale prices for ornamental corn average toward the low end of that range, or \$2 per dozen. One benefit to growing a non-edible crop is that food

safety concerns associated with food crops can be greatly reduced. Ornamental crops can also extend a specialty crop producer's cash

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flow in the late fall months. As with any other specialty crop, however, producers should have a place to market their product before beginning production.

Production Considerations

Site selection and planting

A well-drained soil is essential to achieve high-quality ears of ornamental corn. A good seedbed is necessary for successful seed germination and a good plant start. Fields that have been in fescue sod are ideal for ornamental corn production, but the use of soil-applied insecticides at planting is probably warranted. The field should be plowed several weeks before planting and then disked three to four times. If no-till production is planned, a non-selective herbicide should be applied prior to planting.

To mature in time for a mid-September harvest, plantings should be made between May 15 and May 25. Remember that in no-till production, the soils are slower to warm in the spring, so growth will be slower initially; growers must consider this when selecting varieties. Check maturity dates to ensure that you will have a crop when there is a market for the product. Plant enough seed to produce a plant population of 18,000 to 22,000 stalks per acre for large-eared ornamental corn varieties. The small-eared selections could be grown at populations of 24,000 to 26,000 stalks per acre.



Ornamental corn will freely cross-pollinate with other types of corn, such as field and sweet corn, making isolation necessary. Isolation from other corn varieties can be accomplished by a physical separation of 250 feet or more, or by making sure there is a minimum of 10-14 days difference in

the maturities of the different types. Ornamental corn cultivars recommended for Kentucky are listed in the Sweet Corn section of the *UK Vegetable Production Guide for Commercial Growers* (ID-36). Ornamental corn research trial results are published in the *UK Fruit and Vegetable Research Reports*.

Pest management

Corn earworm is one of the most destructive insects attacking corn. Other insect pests that can cause crop damage include corn borer, armyworm, Japanese beetles, and flea beetles. Using insect traps or scouting to monitor populations helps the grower determine when and how often insecticides should be applied. Ornamental corn requires the same level of insect control given to commercial sweet corn. Potential disease problems include Stewart's wilt, leaf blights, rust, and viruses. Stalk rot diseases, which cause lodging, could be a serious problem, especially in some of the older non-hybrid cultivars. Crop rotation and the use of resistant varieties may help control these diseases. Weed control can be achieved by a good crop rotation program and the use of herbicides. Deer, groundhogs, raccoons, and birds can also cause crop losses.

Harvest and storage

Ornamental corn is harvested by hand when the husk is dry. When the ears have lost their green color and begin to dry down, they have reached full maturity. To harvest, ears are broken off with a quick downward motion. The husk is left on the ear at harvest time. After a week of drying, ears can be used for ornamental purposes. They are usually sold in groups of three held together with rubber bands or a plastic florist's sleeve.

Labor requirements

Labor needs per acre are approximately 20 hours for production and 85 to 95 hours for harvesting, packing, and grading.

Economic Considerations

Initial investments include land preparation,

purchase of seed, and installation of an irrigation system. Production costs (2014) for ornamental corn are estimated at \$430 per acre, with harvest and marketing costs at \$1,570 per acre. Total expenses per acre come to about \$2,300, including fixed costs for machinery and equipment. Presuming gross returns of \$3,250 per acre, returns to land, capital, and management would be approximately \$950 per acre. These returns assume corn is boxed for wholesale. Additional time spent tying and bunching ears for direct markets may increase labor costs but may increase returns if bunched ears can be sold for higher than bulk wholesale prices.

Selected Resources

- A Comprehensive Guide to Corn Management in Kentucky, ID-139 (University of Kentucky, 2001) <http://www.ca.uky.edu/agc/pubs/id/id139/id139.htm>

- Fruit and Vegetable Research Reports (University of Kentucky) <http://www.uky.edu/Ag/CCD/othercrops.html#v>
- Kentucky Integrated Crop Management Manual for Corn (University of Kentucky 2009) <http://www.uky.edu/Ag/IPM/manuals/ipm2corn.pdf>
- Ornamental Corn Production in Kentucky, HO-81 (University of Kentucky, 2008) <http://www.ca.uky.edu/agc/pubs/ho/ho81/ho81.pdf>
- Vegetable Production Guide for Commercial Growers, ID-36 (University of Kentucky) <http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>

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