Muskmelon (Cantaloupe)

Marketing

Kentucky fresh market muskmelons are currently being sold at farmers markets throughout the state. Wholesale markets are also accessible for muskmelons. Kentucky's produce auctions, especially the Fairview Produce Auction in Western Kentucky, have handled more melons each year since 2002. Kentucky growers are also making wholesale alliances with larger, national melon shippers.

In addition, there is a small demand for specialty melons through southern Ohio marketing channels, and Kentucky producers may be able to tap into this market. For more information, refer to the New Crop Opportunities profile on specialty melons.

Market Outlook

After two years of declining consumption, muskmelon consumption increased in 2005. Prices also rose after soft prices in 2004. Producers need to understand that the muskmelon market can be highly variable, with fluctuations dependent on weather in the western U.S., import volume, and changing consumer preferences. Combining different market channels and managing production costs can help reduce risk. With a good marketing strategy, muskmelon producers in Kentucky should be able to average returns in the $1,200 per acre range over a given five-year period.

Production Considerations

Site selection and planting

Muskmelons can be grown on medium-textured soils but do best when grown on sandy or sandy loam soils that are well drained. Planting between strips of annual rye can provide windbreak protection, if needed. Melons should not follow melons or other vine crops in the rotation for at least three years because of potential disease problems.

Muskmelons are usually grown as transplants in greenhouses and then transplanted to the field. They can also be direct-seeded to the field; however, using transplants reduces risks and helps to produce an earlier maturing crop that will often bring much higher prices.

Black plastic mulch with drip irrigation is used to obtain higher yields and to encourage faster growth and earlier maturity. Transplants can be planted through the plastic by making holes with a bulb setter or something similar. Mechanical transplanters are also available that will transplant through plastic.

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Pest management

Bacterial wilt is the most serious disease threat to muskmelon

production in Kentucky. To control this disease, it is essential to control the cucumber beetles that carry the pathogen. It is crucial that plants be protected from cucumber beetle feeding from the day of seedling emergence or from the day of transplanting.

Harvest and storage
Muskmelons are hand-harvested at the "full slip" stage if they are to be sold locally; or at "half slip" if they are to be held some time before marketing. Harvesting every other day will be necessary during periods of high temperatures. Melons benefit greatly when field heat is removed either by hydrocooling or forced-air cooling as soon after harvest as possible.

Labor requirements
Labor needs per acre are approximately 15 hours for production (transplants), 72 hours for harvest, 30 hours for grading, and 10 hours for black plastic removal (post-harvest).

Economic Considerations

Initial investments include land preparation and the purchase of seed or transplants. Additional start-up costs can include the installation of an irrigation system and black plastic mulch. Total pre-harvest variable costs for trickle irrigated muskmelon are estimated at $1,115 per acre with an additional harvesting and marketing cost of $1,740 per acre. Total expenses, including fixed costs, are approximately $3,210 per acre.

Since returns vary depending on actual yields and market prices, the following per acre returns to land and management are based on three different economic scenarios. Conservative estimates represent the University of Kentucky's statewide cost and return estimates for 2005.

Pessimistic	*Conservative*	*Optimistic*
$(122)*	$993	$1,856

**Parentheses indicate a negative number, i.e. a net loss*

Selected Resources

- An IPM Scouting Guide for Common Problems of Cucurbit Crops in Kentucky, ID-91 (University of Kentucky, 2009) http://www.ca.uky.edu/agc/pubs/id/id91/id91.pdf
- Cantaloupe Marketing Fact Sheet (University of Kentucky, 2005) http://www.uky.edu/Ag/NewCrops/cantaloupe2005.pdf
- Marketing Options for Commercial Vegetable Growers, ID-134 (University of Kentucky, 1999) http://www.ca.uky.edu/agc/pubs/id/id134/id134.htm
- Vegetable and Melon Budgets (University of Kentucky, 2008) http://www.uky.edu/Ag/NewCrops/vegbudgets08.html
- Vegetable Production Guide for Commercial Growers, ID-36 (University of Kentucky) http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm
- Drip Irrigation for Vegetables, MF-1090 (Kansas State University, 1993) http://www.ksre.ksu.edu/library/hort2/mf1090.pdf
- Muskmelons: Commercial Vegetable Production, MF-1109 (Kansas State, 1998) http://www.ksre.ksu.edu/library/hort2/mf1109.pdf
- Plastic Mulches for Vegetables, MF-1091 (Kansas State University, 1993) http://www.ksre.ksu.edu/library/hort2/mf1091.pdf
- Producing Cantaloupes in Tennessee, PB-962 (University of Tennessee, 1999) http://www.utextension.utk.edu/publications/pbfiles/pb962.pdf