

Bell Peppers

Marketing

Peppers are grown in Kentucky primarily for fresh market sales. There is little in-state market potential for processed peppers due to the loss of local vegetable processing companies. Fresh market options include roadside stands, local wholesalers and retailers, wholesale markets, farmers' markets and cooperatives.

Market Outlook

Pepper consumption in the U.S. has doubled since 1986. Greater demand for fresh market peppers continues to drive this increase. Fresh vegetable acreage in Kentucky is increasing, with peppers as one of the top three vegetables. Peppers are considered a definite growth crop in Kentucky.

Production Considerations

Site selection and planting

Avoid planting in low-lying fields next to creeks and rivers since these sites are subject to high humidity and moisture conditions and, therefore, especially prone to bacterial spot epidemics. Producers should also avoid fields where long-residual corn or soybean herbicides have been used, since herbicide carry-over can cause serious injury to peppers.

Pepper fields should be located as far away from tobacco plantings as possible due to potential spread of aphid-vectored viruses from tobacco to peppers. It is also advisable not to grow peppers after tobacco, tomatoes, potatoes, eggplants or vine crops for a period of three years since all of these crops are susceptible



to many of the same diseases. Peppers do extremely well following fescue sod.

Growing hybrid bell pepper varieties in double rows on raised beds covered with black plastic mulch and drip irrigation has resulted in high yields of excellent quality peppers. This double row system will require approximately 14,500 transplants per acre. A bed shaper/plastic layer and a setter that will transplant through plastic are essential for this production system.

Pest management

Bacterial spot remains a serious risk to pepper plantings in many parts of the state. It is recommended that all Kentucky growers use resistant varieties and follow a copper plus maneb preventative spray regimen. Other diseases that can result in crop losses include Phytophthora blight, viruses, anthracnose fruit rot, and bacterial soft rot. The most important insect pest of peppers is the European corn borer. Using pheromone traps or scouting to monitor populations can help the grower determine when and how often insecticides should be applied.



Controlling weeds will also aid in disease and insect pest control. Herbicides, plastic mulch and a good rotation system can help control weeds.

Harvest and storage

Peppers are hand-harvested for fresh market when they are at the mature green stage. Fruit must be handled carefully to prevent skin breakage and punctures that could lead to decay. Cooling peppers as soon after harvest as possible will extend their shelf life. Once the fruit is pre-cooled, peppers can be stored for two to three weeks under the proper conditions. Peppers are usually packed in 1¹/₉ bushel waxed corrugated cartons (33 pounds) or according to the preference of your particular market/buyer.

Labor requirements

Production will require approximately 25 hours per acre while harvest needs are 125 hours per acre. Grading and packing require another 75 hours per acre. Black plastic removal (post-harvest) will require another 10 hours per acre.

Economic Considerations

Bell peppers continue to be one of the most popular and profitable crops for Kentucky producers, especially for wholesale market sales. 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.

Production costs for fresh market bell peppers (trickle irrigated) are estimated at \$1,322 per acre, with harvest and marketing costs at \$6,489 per acre. Total expenses per acre, including both variable and fixed costs, are approximately \$8,367.

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.

<i>Pessimistic</i>	<i>Conservative</i>	<i>Optimistic</i>
\$(179)*	\$3,313	\$5,705

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

More Information

- Fresh Market Bell Pepper Fact Sheet (University of Kentucky, 2005)
<http://www.uky.edu/Ag/NewCrops/pepper2005.pdf>
- Kentucky Pepper Integrated Crop Management (University of Kentucky, 2000)
<http://www.uky.edu/Ag/IPM/manuals/ipm13pep.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 Enterprise Budgets (University of Kentucky, 2004) *interactive spreadsheets*
http://www.uky.edu/Ag/AGEcon/pubs/software/budgets_veg_melon.html
- Vegetable Production Guide for Commercial Growers ID-36 (University of Kentucky)
<http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>
- Commercial Pepper Production B-1027 (University of Georgia, 1990)
<http://pubs.caes.uga.edu/caespubs/pubcd/b1027-w.html>
- Drip Irrigation for Vegetables MF-1090 (Kansas State University, 1993)
<http://www.oznet.ksu.edu/library/hort2/samplers/MF1090.asp>
- Plastic Mulches for Vegetables MF-1091 (Kansas State University, 1993)
<http://www.oznet.ksu.edu/library/hort2/samplers/MF1091.asp>