

## Eggplant

### Marketing

Fresh market options for Kentucky-grown eggplant (*Solanum melongena*) include wholesale markets, cooperatives, farmers markets and roadside stands. Sales to local retail markets, such as supermarkets and restaurants, are also an option. Although eggplant is a lower-volume crop sold through farmers markets and cooperatives in Kentucky, it can help add profits to the total mix of crops marketed.

### Market Outlook

While the U.S. consumption of eggplant has doubled since 1990, it is still less than 1 pound per person per year. Growth in eggplant markets has come as consumers diversify their diets, and with the growth of ethnic populations, especially the Asian market. There are many types and varieties of eggplant, requiring direct marketers to identify varieties preferred by consumers.

### Production Considerations

#### *Site selection and planting*

Eggplant does best when planted in a well-drained loam with supplemental irrigation. Because this crop needs warm soil and warm air temperatures to yield well, it should not be transplanted until all danger of frost is past. Staking eggplants helps to prevent late-forming fruit from pulling the branches over to the ground.

Eggplant greatly benefits from the use of black plastic mulch with trickle irrigation. The moisture levels under the plastic must be carefully monitored when using



this plasticulture system. While using black plastic increases production costs, these are offset by the increased profits resulting from increased yields and earliness.

#### *Pest management*

Colorado potato beetle is the key insect pest of this crop. Other insects include flea beetles (which must be carefully monitored immediately following transplanting), aphids and mites. Scouting to monitor populations can help the grower determine when and how often insecticides should be applied. Phytophthora blight can be a problem in wet, poorly drained soils. Fruit rots, leaf spots, Verticillium wilt and tomato spotted wilt virus can also cause crop losses.

#### *Harvest*

Most common eggplant varieties are harvested when they reach a dark, glossy, uniform purple-black color. The fruit is cut from the plant leaving the calyx intact. Eggplant is picked frequently for higher yields. A



crop may be harvested at least five to six times in a season (at seven- to 10-day intervals). Because the fruit is delicate and bruises easily, it must be handled carefully. Fruit is wiped clean or washed after harvest and then cooled to extend shelf life.

#### *Labor requirements*

Labor needs per acre are approximately 25 hours for production, 120 hours for harvest and 800 hours for washing and packing. Plasticulture will add 10 hours more per acre, for the removal and disposal of the plastic.

### **Economic Considerations**

Initial investments can include land preparation and purchase or production of transplants. Additional start-up costs can include the installation of an irrigation system, black plastic mulch and stakes.

Production costs for trickle-irrigated eggplant are estimated at \$1,130 per acre, with harvest and marketing costs at \$3,090 per acre. Total expenses per acre are approximately \$4,500. Since returns vary depending on actual yields and market prices, the following per acre returns to land and management estimates are based on three different scenarios. Conservative estimates

represent the University of Kentucky's statewide average cost and return estimates for 2005.

PESSIMISTIC	CONSERVATIVE	OPTIMISTIC
\$(504) *	\$593	\$1,672

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

### **Selected Resources**

- Eggplant Marketing Fact Sheet (University of Kentucky, 2005)  
<http://www.uky.edu/Ag/NewCrops/eggplant2005.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>
- Eggplants (Agricultural Marketing Resource Center, 2009)  
[http://www.agmrc.org/commodities\\_\\_products/vegetables/eggplants.cfm](http://www.agmrc.org/commodities__products/vegetables/eggplants.cfm)