

## Onions

### Marketing

Fresh market options for Kentucky-grown onions include wholesale markets, farmers markets, restaurants, and roadside stands. Sales to local retail markets, such as supermarkets, are also an option. Green onions can be marketed in late spring to extend the onion season.

### Market Outlook

The per capita consumption of onions has increased nearly 30 percent over the past 10 years. While this upward trend is due in part to the greater demand for sweet onions, the more pungent storage varieties continue to dominate the market. Onions rank third (behind iceberg lettuce and potatoes) among all fresh-market vegetables in terms of volume used.

### Production Considerations

#### *Site selection and planting*

A well-drained soil is essential for good onion production. Most producers rely on either transplants or sets for commercial planting. Onion transplants are started from seed in a greenhouse approximately twelve weeks prior to planting in the field. An onion set is a small, dormant bulb that will produce a larger bulb once it is planted. Green bunching onions are grown from sets planted by mid-March, while bulb onions are commonly started from transplants. Depending on plant spacing, 75,000 to 120,000 onions are planted per acre. Irrigation is required during the critical periods of transplant establishment and bulb expansion.



#### *Pest management*

Disease problems include minor bulb and neck rots, leaf blast and purple leaf blotch. Growing

resistant varieties, rotating crops and following good cultural practices can help prevent many of these diseases; however, fungicide sprays may be needed in most years. Onion maggot and thrips are the main insect pests of onions. Scouting to monitor populations can help determine when and how often insecticides should be applied.

#### *Harvest and storage*

Green onions are pulled and put into bunches when they are 1/3 to 1 inch in diameter.

Bulb onions are undercut, hand-pulled and placed in wind-rows for field drying if weather permits. If rainy weather is a problem, onions are pulled after the tops have dried down, tops and roots are



clipped off, and then bulbs are placed in shallow trays inside for drying. Onions are cured 3 to 4 weeks prior to storing in a well ventilated area.

#### *Labor requirements*

Onions are planted and harvested by hand. Rutgers Cooperative Extension estimates labor needs of 184 hours per acre for planting, harvest and packing of *organically* grown yellow onions.

### **Economic Considerations**

The cost of transplants plus the hand labor for planting and harvest makes the initial investment for onion production high in comparison to some other vegetable crops. Additional costs include land preparation and the installation of an irrigation system.

Production costs (2005) for onions (overhead irrigated) are estimated at \$3,860 per acre, with harvest and marketing costs at \$1,710 per acre. Total expenses per acre, including both variable and fixed, would come to approximately \$5,570. Presuming yields

of 650 cwt and gross returns of \$7,800 per acre, returns to land, capital and management would be approximately \$1,393 per acre.

### **More Information**

- Marketing Options for Commercial Vegetable Growers ID-134 (University of Kentucky)  
<http://www.ca.uky.edu/agc/pubs/id/id134/id134.htm>
- Vegetable Production Guide for Commercial Growers ID-36 (University of Kentucky)  
<http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>
- Green Onion Estimated Costs and Returns (Clemson University, 2007)  
<http://Cherokee.agecon.clemson.edu/onion6.pdf>
- National Onion Association  
<http://www.onions-usa.org/index.asp>
- Onions: The Sweet Smell of Success (USDA, 1998)  
<http://www.ers.usda.gov/publications/agoutlook/oct1998/ao255b.pdf>
- Organic Allium Production (ATTRA, 2006)  
<http://www.attra.org/attra-pub/allium.html>