

## Grapes

### Marketing and Market Outlook

The volume of grapes that can be marketed in Kentucky through fresh market outlets is limited and currently concentrated at the farmers market and fine dining levels. There may also be some potential for producers wishing to explore and expand markets in more populated parts of the state, especially in the Louisville and Northern Kentucky areas.

Wine grapes do offer the opportunity to market larger volumes. Several wineries operating in the state are interested in purchasing certain cultivars of high-quality, Kentucky-grown grapes. There has also been a demand recently for Kentucky grapes from Middle Atlantic wineries. Growers interested in commercial production should become associated with the Kentucky Vineyard Society, through which many education programs on grape and wine production are conducted. It is critical that growers determine their marketing strategy *before* planting, since this is an essential consideration in selecting appropriate cultivars. Growers should also estimate their breakeven price per ton and compare their cost of production to recent prices paid by wineries.

### Production Considerations

#### *Site selection and planting*

Sites for grapes should have full sun exposure, good air



circulation, and well-drained soil. The best sites are above the level of adjoining land, so that cold air drains away from the planting. Gently rolling hillsides with well-stabilized soil are fine; however, cultural operations are easier on level or gently sloping sites.

Purchase true-to-name nursery stock that is certified virus-free. American, American-French hybrids and the more difficult to grow *vinifera* grapes are grown in Kentucky. Vines are normally

planted in the spring, but can be planted in late fall. Grape vines require a trellis for vine support which should be in place by the start of the second growing season.

#### *Maintenance*

Vineyards require canopy management, in addition to pruning and training, to ensure high-quality fruit is delivered to market. Canopy management includes: shoot thinning, shoot positioning, cluster thinning, shoot hedging and leaf-pulling.

#### *Pest management*

Most growers use herbicides and/or mechanical cultivation for weed control. Netting and noisemakers are the two most common methods of bird control used. Common grape diseases include anthracnose, black rot, Phomopsis cane and leaf spot, powdery mildew, downy mildew, gray mold and crown gall. Fungicide applications, along with good cultural practices, are critical for the management of these diseases. Insect pests such



as the grape berry moth, flea beetles, phylloxera, leafhoppers, Japanese beetles, green June beetles and grape cane gall makers can all attack grapes. Regular scouting is necessary to monitor insect populations. Grapes usually require 12 to 15 pesticide sprays per season.

#### *Harvest and storage*

Harvesting is the busiest and most labor intensive part of grape production. Table grapes can be packed into 1-, 2-, or 4-quart containers or vented plastic bags, depending on the retailer's preference.

#### *Labor requirements*

Labor needs per acre during the first and second years include planting (30 hours), training (30 hours) and maintenance (24 hours). A fruiting vineyard will require vine and trellis maintenance (80 hours) along with spraying and mowing operations (48 hours). Harvest will require approximately 48 hours per acre.

### **Economic Considerations**

Producers should carefully examine their own costs and production situation before beginning production. Kentucky's climate and developing grape market can lend considerable risk for producers who do not pay the utmost attention to marketing and management.

Establishment costs for table grapes are estimated at about \$7,000 per acre over a four- to five-year period. These establishment costs are recouped through year six. Most vines should produce a fair crop the third year and reach full bearing potential in four years.

TABLE GRAPES - 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 economic scenarios. Conservative estimates represent the University of Kentucky's statewide average cost and return estimates (2005).

<i>Pessimistic</i> (\$1,275) *	<i>Conservative</i> \$2,197	<i>Optimistic</i> \$5,067
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WINE GRAPES – Wine grapes will be economically feasible only in areas of the state where climatic risk for production is minimized and market prices approaching \$1,000 per ton are assured. Returns per acre vary considerably depending on the varieties grown and the price paid per ton. A mature planting of European-American hybrids with a yield of 6 tons per acre and gross returns of \$5,700, could return \$1,992 per acre to land and management.

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

### **More Information**

- Crop Estimates in Vineyards, HO-86 (University of Kentucky, 2007)  
<http://www.ca.uky.edu/agc/pubs/ho/ho86/ho86.pdf>
- Grape Cost and Return Estimates: Summary and Assumptions (University of Kentucky, 2005)  
<http://www.uky.edu/Ag/NewCrops/grapebudget05.pdf>
- Grape Production Budgets – Vinifera Wine Grape Varieties (University of Kentucky, 2005)  
<http://www.uky.edu/Ag/NewCrops/grapesvinifera05.pdf>
- Grape Production Budgets – French-American Hybrid and American Wine Grape Varieties (University of Kentucky, 2005)  
<http://www.uky.edu/Ag/NewCrops/grapesaustralian05.pdf>
- Grape Production Budgets – Table Grape Varieties (University of Kentucky, 2005)  
<http://www.uky.edu/Ag/NewCrops/grapestable05.pdf>
- Growing Grapes in Kentucky, ID-126 (University of Kentucky, 1997)  
<http://www.ca.uky.edu/agc/pubs/id/id126/id126.htm>
- Commercial Grape Production in Kansas, MF-2370 (Kansas State University, 2004)  
<http://www.oznet.ksu.edu/library/hort2/samplers/MF2370.asp>

- Midwest Commercial Small Fruit and Grape Spray Guide, ID-94 (Midwest Fruit Workers, 2007)  
<http://www.hort.purdue.edu/hort/ext/sfg/>
- Midwest Grape Production Guide, B-919-05 (Ohio State University, 2005)  
<http://ohioline.osu.edu/b919/index.html>
- Midwest Small Fruit Pest Management Handbook, B-861 (Ohio State University, 2004)  
<http://ohioline.osu.edu/b861/index.html>
- Organic Grape Production (ATTRA, 2006)  
<http://attra.ncat.org/attra-pub/grapes.html>
- Winery and Vineyard Feasibility Workbooks (Ag Marketing Resource Center, 2007)  
<http://www.agmrc.org/agmrc/commodity/fruits/wine/wineryfeasibility.htm>