

Raspberry

Introduction

Raspberries (*Rubus* spp.) are included in the group of small fruits generally referred to as ‘brambles’ or ‘caneberries.’ They have perennial crowns and roots that produce biennial canes. The canes bear fruit the second year and then die naturally after harvest. Some raspberries (known as ‘everbearing’ or ‘fall-bearing’) also produce fruit at the tips of the first-year canes. Everbearing red and yellow raspberries, June-bearing red raspberries, and purple and black raspberries can be successfully grown commercially in Kentucky. With favorable growing conditions, a raspberry planting may produce for 8 to 12 years.

Marketing

Raspberries in Kentucky have been traditionally sold on the farm as U-Pick. Future market growth will come through local fresh markets like farmers markets, roadside stands, restaurants, and local retailers. Berries are also an attractive addition to a Community Supported Agriculture (CSA) share. There is some limited wholesale berry marketing to large retailers in Kentucky. Smaller growers can investigate selling raspberries wholesale at Kentucky’s produce auctions, which report strong prices for fresh berry sales. The use of season extension techniques and everbearing varieties can create a longer marketing window for raspberries versus other berry fruits.

Market Outlook

The continued demand for high quality, locally produced commercial berries offers promise for producers willing to invest the time and capital into



further developing Kentucky’s raspberry market. Producers located near population centers will have the added marketing edge. Raspberry fruits do not store or ship well, which limits the market area, but increases the demand for local, quality fruit. Value-added raspberry products (preserves and baked goods) are popular with consumers and can be a way to increase the profitability of the entire enterprise.

Production Considerations

Site selection and planting

The site should be selected the year before planting to allow time for adequate preparation. A well-drained, deep fertile soil, high in humus and free from hard pans is best for raspberries. When possible, plant brambles on a north-facing slope or where there is afternoon shade, but avoid extremely windy sites. Raspberries should not follow solanaceous crops (such as tomatoes, peppers, and tobacco), strawberries, or

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other bramble crops for 3 to 4 years. Irrigation is essential for commercial production and beehives are needed to ensure adequate pollination.

Growers are encouraged to establish plantings from certified, virus-free nursery stock. The distance between plants and between rows varies depending on the type of raspberry grown, training method, and the size of farm equipment. Raspberries are a high maintenance crop, requiring regular pruning and training to ensure maximum fruit production. Red raspberries are trained in the hedgerow system without a trellis or with a low trellis. Vigorous everbearing red raspberries grown for a fall crop alone are generally mowed level with the ground in the spring and may require a temporary trellis several weeks prior to harvest. Black and purple raspberries require a low trellis, which should be constructed either before planting or during the first season.

Pest management

Common disease problems include anthracnose, cane and spur blight, crown gall, *Phytophthora* root and crown rot, fruit rots, and orange rust on black raspberries. Mites, cane borer, aphids, and Japanese beetles can cause damage in raspberry plantings. Good weed control is very important and can be accomplished with cultivation, mulching, and/or herbicides.

Harvest and storage

The first significant harvest occurs the third year for June-bearing red raspberries and the second year for everbearing raspberries. Ripe berries should be picked regularly at least twice per week, but more often at the peak of the season and under hot, rainy conditions. Berries are placed directly into the marketing container as they are picked. Cooling within a half hour of harvest is recommended.

Labor requirements

Production and labor needs vary depending on the age of the planting and the type of raspberry being grown. Pennsylvania State University's estimated per acre labor needs for production

are as follows: land preparation (4 hours), establishment (51 hours), production year-1 (30 hours), and production year-2 to maturity (80 to 85 hours). Harvest will require 300 to 500 hours per acre. U-Pick operations will generally need approximately 300 customers to harvest an acre of red raspberries.

Economic Considerations

There is considerable startup cost, demanding management, and a time lapse of 1 to 2 years after establishment before a raspberry crop can be harvested. Initial investments include land preparation, purchase of plants, plant establishment, and installation of an irrigation system. In addition, a trellis system may be needed, especially for black and purple raspberries. The cost of a cooler, which is essential to berry production, should also be included.

The University of Kentucky Department of Agricultural Economics estimates the total cost of establishing one acre of raspberries at \$10,485 per acre, including trellising and trickle irrigation. Net returns to land and management can range from \$3,725 to \$7,600 per acre for mature raspberries (2009). Depending on the marketing method used, raspberries should pay back their establishment costs in 5 to 8 years. Well-managed U-Pick marketing has the potential to add \$0.50 to \$1.00 per pint to raspberry profitability.

Selected Resources

On the Internet

- Growing Blackberries and Raspberries in Kentucky, HO-15 (University of Kentucky, 2005) <http://www.ca.uky.edu/agc/pubs/ho/ho15/ho15.pdf>
- Blackberry & Raspberry Growers Information Portal (North Carolina State University) <http://www.ncsu.edu/enterprises/blackberries-raspberries>
- Brambles – Production Management and Marketing, Bulletin 782 (Ohio State University, 1999) <http://ohioline.osu.edu/b782/index.html>

- Berries (Cornell University)
<http://www.fruit.cornell.edu/berry/index.htm>
- Growing Raspberries, AG-569 (North Carolina State University, 1998)
<http://www.ces.ncsu.edu/depts/hort/hil/ag569.html>
- High Tunnel Raspberries and Blackberries (Cornell University, 2009) 2.63 MB file
<http://www.hightunnels.org/ForGrowers/Small%20Fruits/hightunnelsrasp.pdf>
- Midwest Commercial Small Fruit and Grape Spray Guide ID-94 (Midwest Fruit Workers Group, 2009)
<http://www.hort.purdue.edu/hort/ext/sfg/>
- Midwest Small Fruit Pest Management Handbook Bulletin 861 (Ohio State University, 2004)
<http://ohioline.osu.edu/b861/index.html>
- North American Raspberry and Blackberry Association (formerly North American Bramble Growers Association)
<http://www.raspberryblackberry.com/>
- Organic Culture of Bramble Fruits (ATTRA, 2003)
<https://attra.ncat.org/attra-pub/summaries/summary.php?pub=15>
- Raspberries, HO-44 (Purdue University, 2001)
<http://www.hort.purdue.edu/ext/HO-44.pdf>
- Southern Region Small Fruit Consortium (Clemson University, North Carolina State University, Virginia Tech, University of Arkansas, University of Georgia, University of Tennessee)
<http://www.smallfruits.org/>
- Southeast Regional Caneberries Integrated Management Guide (Southern Region Small Fruit Consortium, 2010)
http://www.smallfruits.org/SmallFruitsRegGuide/Guides/2010/2010%20Bramble%20Spray%20Guide%20New%20Trial%20Version%202_10_10.pdf
- Southeast Regional Bramble Production Guide (Southern Region Small Fruit Consortium. 2008)
<http://www.smallfruits.org/SmallFruitsRegGuide/Guides/2008/08BrambleguideMay22.pdf>

In Print

- Raspberry and Blackberry Production Guide for the Northeast, Midwest, and Eastern Canada. Lori Bushway, Marvin Pritts, and David Handley, editors. 2008. NRAES. 157 pp.
Ordering information:
http://www.nraes.org/nra_order.taf?_function=detail&pr_id=171

Reviewed by John Strang, Extension Specialist (Issued 2003, Revised 2006, Revised 2010)

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