

# Rhubarb

## Introduction

Rhubarb (*Rheum rhabarbarum*) is a winter-hardy herbaceous perennial grown for its edible leaf stalks. The tart-flavored stalks are most commonly used in pies, often in combination with strawberries for added sweetness. The leaves themselves are not eaten, either cooked or raw, as they contain toxic levels of oxalic acid.



## Marketing

Fresh market options for Kentucky-grown rhubarb include wholesale markets, farmers markets, and roadside stands. Local retail markets, such as supermarkets, are also potential markets. Value-added products can include pies, bread products, fruit cups (mixed with strawberries), jams/jellies, and candy-type products. A pleasant wine can also be made from rhubarb.

## Market Outlook

This vegetable crop is actually used as a fruit and has the advantage of being harvestable in early summer when most fruits are not yet ripe. Although a cool-season crop, rhubarb can last far into the summer and provide variety at a farmers market or roadside stand. There is modest wholesale market potential for rhubarb, but direct sales to restaurants or local and specialty grocers may be possible. In general, the market for rhubarb is limited and growers should begin with a small planting and expand as the demand increases. Possibilities also exist for niche and organic markets for rhubarb.

## Production Considerations

### *Cultivar selection*

There are many named hybrids available that can be used in commercial production. Most of these have been around for a number of years since few new varieties are being developed in the U.S. Cultivars vary in stalk color (red to pink, speckled, and green) and flavor; however there is no known correlation between stalk color and sweetness. While consumers often prefer the deep red petioles, these cultivars may produce thinner stalks and may be less productive. Other traits, such as stalk thickness, stalk length, plant vigor, chilling requirement, and disease resistance, can also differ between cultivars.

### *Site selection and planting*

Rhubarb is a cool-season crop, thriving on a well-drained soil that is deep and high in organic matter. Fields should be free of perennial weed problems and deeply plowed. Applications of aged manure are very beneficial to rhubarb. Plantings are established vegetatively from vigorous,



disease-free crown pieces, each with two or more buds. Rhubarb should be transplanted in early March in Kentucky. Rhubarb seed does not produce plants true to the parent so direct-seeding is not recommended. Plantings are normally rejuvenated every 8 to 10 years by dividing crowns and resetting.

Irrigation is usually not needed during the spring harvest; however, it is occasionally needed late in the season to insure good growth the next spring. Irrigation is also important to help keep the plants cool in the summer. Rhubarb will suffer from heat and the life of a planting can be impacted severely by temperatures over 85° F.

#### *Pest management*

Rhubarb is generally disease-free; however, leaf spots/blights can occur. Crown rot will be a serious problem in sites that do not have excellent soil drainage. Planting into well-drained sites and practicing good sanitation are important disease control measures. Remove all leaf material in the fall to reduce pathogen populations. Stalk borer and rhubarb curculio are the main insect pests that are occasionally encountered. Controlling weeds within fields and along borders is critical for effective insect and disease management.

#### *Harvest*

Harvesting should be delayed until the second or third year, at which time stalks may be removed during a short period (about 4 weeks) in the spring. A full harvest period (8 to 10 weeks) begins during the subsequent growing season, and thereafter. Stalks are hand-harvested by pulling, not cutting, when they are 10 to 15 inches long.

#### *Labor requirements*

Labor needs per acre are approximately 35 hours for production, 192 hours for harvest, and 13 hours for packing.

## **Economic Considerations**

Initial investments include land preparation, purchase of crowns, and plant establishment. An additional start-up cost can include the installation of an irrigation system. A rhubarb crown can cost \$3.00 to \$7.00, depending on the variety, quantity purchased, and supplier. The crown will begin contributing toward the cost of its purchase the year after it is planted. Depending on the initial cost of the crown and rhubarb selling price, it will take 2 to 5 pounds of rhubarb per crown to cover the crop's establishment cost. This may occur 1 to 2 years after planting.

Rhubarb, especially in well-managed small plantings, can be a low-cost crop. Producers with market outlets will capture nearly the entire selling price as returns to land, labor and management after the establishment year. Well-managed, small-scale rhubarb that is direct-marketed could return a gross profit of \$8.00 to \$20.00 per crown per year. Processing (freezing) for larger-scale rhubarb production is not currently available in the Kentucky region.

## **Selected Resources**

- Vegetable Production Guide for Commercial Growers, ID-36 (University of Kentucky)  
<http://www.ca.uky.edu/agc/pubs/id/id36/id36.htm>
- Rhubarb (Oregon State University, 2004)  
<http://hort-devel-nwrec.hort.oregonstate.edu/rhubarb.html>
- Rhubarb Compendium (2010)  
<http://www.rhubarbinfo.com/about>
- Rhubarb Production (North Dakota State University, 2003)  
<http://www.ag.ndsu.edu/wardcountyextension/horticulture/vegetables/Commercial%20Rhubarb.pdf/view>
- Specialty Crop Profile: Rhubarb (Virginia Cooperative Extension, 2009)  
<http://pubs.ext.vt.edu/438/438-110/438-110.html>

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*Photos courtesy of John Strang, University of Kentucky*

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For additional information, contact your local [County Extension](#) agent