UK COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY — COLLEGE OF AGRICULTURE

Willow

Introduction

Willows (*Salix sp.*), well-known for their flexible and vigorous growth, have long been popular in basket and furniture making. A versatile woody ornamental, various species can also be used for trellises, fencing, floral arrangements, artistic sculptures, bioenergy and in landscape plantings. There are literally hundreds of varieties that can be grown, depending on the desired use.

Marketing

Willows are sold as dried rods for basketry, furniture and similar uses. They are also sold as live cuttings for plantings. Marketing possibilities include the Internet, direct sales to craftsmen, craft fairs, farmers' markets and nurserymen.

Market Outlook

Currently there are very few commercial basketry willow growers in the U.S. Much of the willow used for this purpose is imported, generally from the British Isles. The growers at Kentucky's one commercial willow farm indicate that they are unable to meet the increasing demand for domestically grown willow. Growers who specialize in the "out of the ordinary" willow varieties may be able to develop their own niche market. Craftsman are often willing to pay premium prices for products that are new and different.

Production Considerations

Site selection and planting

Willows thrive in deep, rich soil where there is plenty of water. A hardy plant, willow will also tolerate poorer soils and windy sites. While a high water table is advantageous, it is not absolutely necessary. The planting site should be well-tilled and free of weeds and large stones.

Planting material consists of fresh, 10- to 12-inch cuttings taken from one-year-old willow shoots during dormancy. The cuttings are planted while still dormant (November through March) by inserting them directly into the soil by hand until 80 to 90 percent of the stem is buried. Some growers use a metal rod to prepare a planting hole when the cuttings cannot be easily poked vertically into the ground. It is important that the bark around the stem not be damaged during the planting process. Planting distances will vary depending on the willow variety and use.

Establishment and maintenance

Full sun and the lack of competition are important for the establishment of newly planted willows. After the first year, willows are cut back to the ground during dormancy to promote multiple stem growth. Thereafter, plants are cut annually or according to the preferred cutting cycle. Once established, willows are low maintenance, except during

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harvest. Established willow beds may produce for 20 years or more.

Willows in bloom

Pest management
Deer living in the vicinity can become a major problem, possibly requiring the installation of an electric fence to protect the willow plantings. Rabbits can also be a problem when they girdle around the base of plants. Insect problems can include aphids and Japanese beetles.

It is essential to keep beds weed-free from planting to establishment. Methods include cultivation, hand weeding and herbicides. Mulches can also be used to control weeds; however, black polyurethane is not recommended here. While plastic is frequently used during willow establishment in Europe, cuttings planted into black plastic tend to "cook" under Kentucky conditions. Once established, willows are better able to compete and will generally outgrow the weeds in the beds themselves. Areas between the beds can be mowed.

Harvest and processing
Most basketry and floral willows are cut annually when plants are dormant, beginning in late fall and ending at bud break in the spring. This is also the time that cuttings are taken to expand the operation and/or sell to other growers.

Harvested stems (also referred to as "rods") are first sorted by length and variety. Rods are then allowed to dry naturally or are processed. Processing can involve steaming or boiling, followed by peeling and drying. Rods are stored under dry conditions until sold.

Basketry, furniture and floral willow rods are sold by the pound, regardless of length. Rod lengths, which are generally specified by the customer, can vary from 1 foot to more than 10 feet, depending on the variety and use. Fresh material for planting is sold as individual, unrooted cuttings.

Labor requirements
Labor needs will vary by the production system. Estimated per acre labor requirements are approximately 15 to 35 hours for planting, 10 hours for production, 50 hours for harvesting and 150 hours for sorting, handling and marketing. Installation of a fence the first year would require additional labor.

Economic Considerations

Site preparation is a key economic consideration for perennial crops like willow. Upgrading soil quality, preparing planting beds and controlling weeds can be capital intensive activities. Potential producers should experiment with willow production to refine both production costs and marketing strategies for their situation.

Producers with a potential deer feeding problem should be prepared to invest in adequate fencing for deer control. Depending on the type of fence used, from lower-cost portable electric fence to higher-cost permanent fences, this could be the most costly part of willow production. Where permanent fencing is desired, site preparation costs could easily exceed $5,000 per acre just for fencing. Lower cost electric fence options could decrease this cost.

An acre of well-managed willow could produce 4 to 5 tons of marketable rods. Current (2004) market prices for willow rods for basketry are $5.50 per pound. If markets are well cultivated and accessible, this could generate significant returns to land, labor and management. However, markets for a thinly traded commodity like willow can be volatile and difficult to cultivate. Returns to land, labor and management could vary from $4,000 to $40,000 per acre, depending on acreage, production method, type of willow and market.

More Information

- American Willow Growers Network (AWGN)
http://www.englishbasketrywillows.com/Welcome/AWGN.htm
- Willow Cultivation from Rods and Cuttings (West Wales Willows, United Kingdom)
http://www.westwaleswillows.co.uk/willowplanting.html
- Willow Cuttings (Slimbridge Wetland Plants, United Kingdom)
http://slimwetwillows.co.uk/cuttings.htm
- Willow Dreams Farm (Edmonton, Kentucky)
http://scrtc.com/~rharrison62/english.html

Note: Some United Kingdom production methods are not compatible with Kentucky conditions.

Photos courtesy of Bobbie and Ron Harrison, Willow Dreams Farm, Edmonton, Kentucky

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