UK COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY — COLLEGE OF AGRICULTURE

Broomcorn

Introduction

Broomcorn, which is actually a type of sorghum, has a coarse, fibrous seed head that has been used to make various types of brooms and brushes for several hundred years. It is also used to make decorative items, such as wreaths, floral arrangements and baskets.

Market and market outlook

The U.S. demand for broomcorn has declined with the rise in sales of synthetic brooms. About half of the current national need for broomcorn is being met by imports from Mexico, another key factor contributing to the decline in domestic acreages. It may not be possible for Kentucky growers to compete with broomcorn wholesalers; however, there are still a number of artisans and craftsman who pride themselves in making quality brooms by hand. These entrepreneurs, many of whom use imported broomcorn, may be interested in a ready local supply.

Stores that specialize in decorative and craft items, as well as farmers' markets, may present other marketing options. Broomcorn is a unique product that could be included in the fall decoratives market. As with any specialty product, it is best to identify a market before planting the crop.

Production considerations

Site selection and planting

The cultivation of broomcorn is similar to that of field corn. Broomcorn can be grown on a variety of soils, from sandy soils to rich bottomlands. It is relatively tolerant of heat and drought. The best quality brush, however, is produced on silt loam soils that are well drained, warm, moist and fertile. Seed bed preparation involves plowing, disking and double-harrowing.

Pest management

Insects of potential importance include sorghum midge, corn earworm, fall army worm, sorghum webworm, European corn borer and aphids. Several types of diseases attack sorghums, including seed rots and seedling blights, leaf diseases, smuts, and root and stalk rots. Early weed control is important since broomcorn seedlings are slow-growing and poor competitors with weeds. Plantings in small fields, near trees or buildings may be vulnerable to bird damage.

Harvest and storage

Broomcorn is harvested for broom-use when the peduncles turn completely from yellow to pale green prior to seed maturity. Four to five days after this stage, the brush will become

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brittle and no longer be suitable for brooms. Harvesting at an earlier stage results in weak fibers that are also unsuitable for broom-making.

Broomcorn requires considerable hand labor for harvest. The harvester walks backward between two rows, breaking over the stalks so that they crisscross and form a two- to three-foot-high "table". The brush is then cut off just below the crown and piled on the "table" to dry for one to two days. Broomcorn can be threshed before or after curing; however, less damage occurs to the brush if threshing is done before curing, while the fibers are still flexible.

Curing takes about two to three weeks on racks in a drying shed. Next, broomcorn brush is sorted according to fiber length and color, then baled. Careful handling is essential in order to maintain good quality, straight, untangled fibers. An acre of broomcorn can yield 300 to 600 pounds of brush, which is sufficient to make approximately 150 to 350 brooms.

Brush for some non-broom uses is harvested after the seed pods are fully colored. Stalks are cut part way through and allowed to hang on the remaining stalk for approximately a week prior to complete removal. While left-over stalks are of very little value for forage, the mature seed is comparable to oats in feed value.

Labor requirements

Labor needs for production are estimated at 4 hours per acre. Harvesting operations, including cutting, tabling, curing and baling, can take 15 to 40 hours per acre.

Economic considerations

Production costs for fields yielding 450 pounds per acre of broomcorn are estimated at $215 per acre, with harvest and marketing costs at $376 per acre. Total expenses, including both variable and fixed costs, come to about $490 per acre. Presuming gross returns of approximately $563 (450 pounds at $1.25 per pound), returns to land, capital and management would be about $70 per acre.

Since wholesale production is not economically feasible in Kentucky, broomcorn is recommended only as a small-scale specialty market crop.

More information

- Alternative Field Crops Manual: Broomcorn (University of Wisconsin and University of Minnesota, 1990)
http://www.hort.purdue.edu/newcrop/afcm/broomcorn.html
- Broomcorn and Broom Making (Forest Preserve District of Cook County, Illinois, 1962)
http://www.newton.dep.anl.gov/natbltn/600-699/nb685.htm

Photo courtesy of Teresa Nowak,
Left Field Garden Project, Minneapolis, Minnesota

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