

Broomcorn

Introduction

Broomcorn (*Sorghum vulgare*) is not actually corn, but is instead related to the sorghums used for grain and syrup (*Sorghum bicolor*). Broomcorn has a coarse, fibrous seed head that has been used to make various types of brooms and brushes for several hundred years. While there are still artisans creating these natural brooms today, this crop is now more commonly used to make decorative items, such as wreaths, swags, floral arrangements, baskets, and autumn displays. It takes about 60 sprays (heads) to make a broom, but wreaths and dried arrangements require only a few plants. Broomcorn is available in natural colors, as well as purple and various fall colors.

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 craftsmen who pride themselves in making quality brooms by hand. These entrepreneurs, many of whom use imported broomcorn, may be interested in a readily available local supply. As with any specialty product, it is best to identify a market before planting the crop.

Broomcorn is a unique product that could be included in the fall ornamental market. Stores that specialize in decorative and craft items, as well as farmers markets, may present other marketing options. Small bundles tied in sprays or shocks have been sold for use in the landscape for attracting and feeding birds. These bundles serve double duty as a decoration and a bird



feeder. Broomcorn seed could also be incorporated in birdseed mixes.

Some on-farm marketers have created corn mazes using broomcorn. Selecting shorter cultivars creates a maze that is more user-friendly for preschool and younger children. Although stalks left over from harvesting for brooms are of very little value for forage, the mature seed is comparable to oats in feed value.

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. Seedbed preparation involves plowing, disking and double-harrowing. Plants should be 6 inches apart in rows at least 16 inches apart. Broomcorn is often planted in 30- or 36-inch rows.

Pest management

Insects of potential importance include sorghum midge, corn earworm, fall armyworm, 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 located near trees or buildings may be vulnerable to bird damage.

Harvest

Broomcorn for ornamental uses is harvested after the seedpods are fully colored. The stalks are generally cut while still pliable and then either sold fresh in bundles, or dried. The sprays for dried arrangements may be hung upside down to dry or placed in an empty vase or container so they bend into an arching shape. Alternatively, stalks can be harvested by only cutting part way through the stem, then allowing tops to hang on the remaining stalk for approximately a week prior to complete removal.



BALED BROOMCORN

Broomcorn is harvested for broom-use prior to seed maturity when the peduncles (the stem that supports the flowers and seeds) turn completely from yellow to pale green. Four to five days after this stage, the brush will become brittle and no longer be suitable for brooms. Harvesting at an earlier stage will result in weak fibers that are also unsuitable for broom making.

Harvesting for brooms requires considerable hand labor. Traditionally, the harvester walks backward between two rows breaking over the stalks so that they crisscross and form a 2- to 3-foot high “table.” The brush is then cut off just below the crown and piled on the “table” to dry for 1 to 2 days. Broomcorn can be threshed to remove seeds before or after

curing; however, less damage occurs to the brush if threshing is done prior to curing, while the fibers are still flexible. Curing takes about 2 to 3 weeks on racks in a drying shed. Next, broomcorn brush is sorted according to fiber length and color, and then baled. Careful handling is essential to maintain good quality, straight, untangled fibers. An acre of broomcorn should yield 300 to 600 pounds of brush, which is sufficient to make 150 to 350 brooms.

Labor requirements

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

Economic Considerations

Initial investments include land preparation and the purchase of seed. Seed costs for specialty sorghum could be much greater than grain sorghum seed costs. Production costs for fields yielding 450 pounds per acre of broomcorn are estimated at \$460 per acre, with harvest and marketing costs at \$435 per acre. Total expenses, including both variable and fixed costs, come to about \$858 per acre. Presuming gross retail returns of approximately \$900 (450 pounds at \$3 per pound), returns to land, capital, and management would be about \$270 per acre. Obtaining premium prices for ornamental broomcorn through direct marketing could substantially increase these estimated returns. Broomcorn production is unlikely to be profitable in Kentucky at prices under \$2 per pound.

Selected Resources

- Alternative Field Crops Manual: Broomcorn (University of Wisconsin and University of Minnesota, 1990)
<http://www.hort.purdue.edu/newcrop/afcm/broomcorn.html>
- Broomcorn and Brooms: A Treatise on Raising Broomcorn and Making Brooms c.1876 (American Libraries Internet Archive)
<http://www.archive.org/details/broomcornbroomst00newyrich>

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May 2013

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Photos: Teresa Nowak, Left Field Garden Project, Minneapolis, Minnesota (broomcorn); Berea College Crafts (hand-made broom and baled broomcorn)

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