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Syrup Sorghums for Texas

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There remains a great deal of interest in making sorghum syrup the "old-fashioned way," and this has often been the focus of sorghum festivals around certain communities in East and Central Texas. Some sweet sorghums provide molasses that is clear, medium, or strong in both color and taste. Sorgo syrup acquires its flavor or tang chiefly from organic acids that are present in the juice. It is high in iron, especially if evaporated in iron trays or pans.

The term molasses is a misnomer, since molasses is a by-product of sugar manufacturing. Sorgo syrup production reached its peak in 1920, and the industry declined steadily until almost totally displaced by sugarcane and sugarbeets.

Texas apparently does not have a syrup sorghum seed collection, and most producers obtain their stocks out-of-state. Sometimes even the sorghum cane is brought in from Louisiana or Arkansas.

Sources of Seed. Good sorghum seed collections are maintained at Louisiana State University and the Meredith Mississippi Experiment Station. Commercial seed is available in 50-pound bags from a few seed companies that cater to the syrup maker. The Shamway Seed Company in Rockford, Illinois, carries both Sugerdrip and Honeydrip.

The Meredith Mississippi Experiment Station has such varieties as M81E, Dale (100-day maturity), and Thesis. Milsap (named after Milsap, Texas) is a 90-day syrup sorghum. Texas-seeded Ribbon Cane requires about 120 days to mature, gets 7 to 8 feet tall, and is rumored to be the same as Honeydrip.

Orange, Sumac, Honey (may be same as Honeydrip), and Black Amber are four additional varieties of sweet sorghum that have been widely used in syrup production. Honey is a late-season variety, while Orange and Sumac are medium and Amber is short-season.

Soils and Site Selection. Medium- to high-fertility soils should be selected with good drainage. Avoid the use of manures, as this will have an unfavorable effect on the quality of the syrup. Prepare the ground the same as for corn.

Planting. Sorgo or sweet sorghum should be planted the same time and depth as sorghum planted for grain, usually 2 to 3 weeks following normal corn planting dates. Planting rate will depend on seed size and germination, but generally require 6 to 10 pounds of seed per acre resulting in a 8- to 10-inch row spacing. Thick stands should be avoided.

Harvesting. Plants should be harvested when grain is in the late-milk or medium-dough stage for best syrup quality. All leaves are stripped from stalks and heads are removed along with the uppermost 2 or 3 internodes. Juice from the upper internodes and peduncles is higher in starch and minerals than that from the remainder of the stalk. These components interfere with syrup extraction and quality and require separation later in processing.

Do not cut more sorghum than can be processed in 1 or 2 days. If the weather is hot, processing should proceed as soon as possible to prevent heating (impairs syrup quality).

Good sorghum fields will yield 15 tons per acre and each ton will derive 8 to 20 gallons of syrup. Each acre of sorghum may produce 75 to 150 gallons of syrup, with difference resulting from the type of milling and processing, variety selection, growing conditions, and management practices.

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Quality of Sorghum Syrup. Sorghum syrup is evaluated on thickness, clarity, color, and taste.

•Color and Density: Overcooking tends to darken the syrup, and a better color will be retained if the syrup is cooled somewhat before it is canned. Syrup is "finished" when it has reached the correct density. Ordinarily, this is when syrup temperature reaches 15 degrees above the boiling point of water. The density of the finished product will be about 11.5 pounds per gallon.

At this density the syrup is approximately 70 percent sugar and pours readily. Malt diastases is sometimes added to hydrolyze the remaining starch into glucose, thereby preventing thickening and jellying.

•Clarity: After deriving the juice from the mill, the juice is allowed to settle and is strained before it enters the evaporating pans. When heat is applied to the juice, much of the starch is made soluble, but certain proteins and other non-sugar substances become coagulated and either settle or rise to the surface. These must be skimmed regularly and include plant fragments, soil, coagulating proteins, fats, gums, and waxes.

This process is frequently helped along with phosphoric acid or lime, which neutralizes the acidic juice and precipitates many of the impurities. While canning at 180°F, the syrup will improved if passed through a muslin strainer or filter sufficient to remove the finer FM.

Preventing Crystallization. A yeast extract containing invertase (enzyme) can be added to change part of the sucrose (cane sugar) to dextrose (glucose) and levulose (grape sugar). Good-quality syrup with a long shelf life contains 13 to 17 percent sugar, of which 10 to 14 percent is sucrose. When more cane is cut than can be processed in 1 to 2 days, the stalks rapidly lose sucrose (cane sugar) by inversion to dextrose and levulose. If too much conversion occurs, these syrups will be thinner and of inferior quality.

Syrup Uses. Sorghum syrup or molasses is valued as a topping for pancakes, biscuits, ice cream, and desserts, but has a slightly stronger taste than cane syrups. Sorghum molasses is easily substituted in recipes for cookies, sweet breads, and candies.

Unfortunately many of the older generation who have kept sorghum-syrup-making alive have retired to less arduous activities. Only through the handing-down of family crafts and traditions have these types of skills been passed on from generation to generation.

Syrup-making is a "working reunion" for some families and a source of extra income for those who share their pioneering skills at festivals and farmers' markets across Texas. Not all of the 1,000-pound mills and presses are of older vintage. Some of these are newly manufactured and are available for the young at heart.

For More Information.

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