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A CASE FOR MINOR FOOD PRODUCTS NEEDING A DISTRIBUTION CHANNEL

by
Daniel A. Swope
Agricultural Marketing Specialist
U.S. Department of Agriculture

In an age of large scale and increasingly automated food distribution, some products find it difficult to survive because they do not fit into a system that favors procurement in large volumes of uniform, specified qualities. Sorghum syrup, an oldtime favorite of people in the Southeast and Midwest, is an example of a product facing this dilemma.

Unlike other regionally identified foods such as cranberry sauce and maple syrup, which have gained wide acceptance and are now in the product lines of major national food firms, sorghum syrup largely remains a locally produced and consumed product. In many places it is still made by the old fashioned open pan evaporation method on the farms where the sweet sorghum crop is grown. Differences in varieties, soils, climate, and cultural practices and in syrup making techniques make the product highly variable in color, viscosity, aroma, and flavor.

Although sweet sorghum is a minor crop, syrup sales are an important source of income to some farm families. To enhance the rural economy, the Agribusiness Program of the USDA Agricultural Research Service launched a two-part project to study the present and potential market for sorghum syrup and to demonstrate innovations in harvesting and handling and in syrup making techniques.

Under a contract with the Agribusiness Program, a demonstration plant was operated by the Chemical Engineering and Agricultural Engineering Departments at the Virginia Polytechnic Institute as a prototype of a small-scale commercial sorghum syrup enterprise. Over two seasons of operation, various refinements and innovations were incorporated into the prototype plant. The basic feature of the syrup plant was a continuous evaporator developed by an ARS laboratory to produce maple syrup.

Improvements developed in harvesting and handling sorghum cane have particularly favorable implications for increasing labor efficiency. These include a modified corn harvester that cut the cane in 5-inch lengths; an electric wagon unloader that automatically unloaded in 7 minutes; and a cane conveyor system featuring pneumatic separation of loose leaves and seed heads and mechanical loading of residue into a wagon.

Such labor-saving devices can fill one of the principal needs revealed in interviews with syrup processors in the marketing phase of the study which was conducted by the Agribusiness Program. Among the 21 firms visited in the Southeast and Middle Atlantic states were a number of syrup plant operators who stressed the need to develop more labor-efficient ways to get the cane from the field to the plant.

The principal objective of the marketing study, however, was to assess the present situation and the market prospects for sorghum syrup. Production has declined sharply in the U.S.--from 11.7 million gallons in 1945 to under 2 million gallons in 1960, the last year USDA compiled statistics. Yet, the consensus of most of the firms interviewed in the East, and in later interviews with 24 firms in California and Arizona, was that there is a continuing consumer demand but there are difficulties in obtaining an adequate and dependable supply of sorghum syrup that meets quality specifications.

Developments that were mentioned as discouraging influences for continuing production were the passage of state laws and local government ordinances that impose restrictions on the processes, formulations, or labels that some producers have used. The subsequent promulgation of U.S. standards for sorghum syrup in 1975 introduced additional guidelines that undoubtedly required some changes to assure compliance. Establishment of these standards, however, should contribute to improved, more uniform quality--a need mentioned by numerous blenders.

In regions with a high population of retirees, notably the Southwest (Arizona and Southern California), there are many health food stores, and most stock one or more brands of sorghum syrup. Also, area supermarkets usually carry at least one brand. Wholesale health food distributors are concentrated

in the Southwest. Some of these firms sell blends of sorghum syrup packed under their private label, while others distribute packers' brands. It appears the Southwest is an excellent market area for sorghum syrup, but only a few large syrup producers are actively marketing in the region because of high shipping costs encountered in transporting sorghum from producing areas in the Southeast and other distant producing areas. In some months of the year distributors cannot obtain established brands of syrup from producers, and therefore, they stock substitute brands. This limits retailers' opportunities to offer consumers a choice to satisfy their brand preferences so as to maximize sales of this uniquely flavored sweetener.

As a potential solution for this undependable supply situation, the Agribusiness Program explored the feasibility of growing sweet sorghum on irrigated land in Arizona. Although satisfactory syrup was produced from several of the varieties grown in test plots, there has been no evidence of entrepreneurial interest to establish a plant.

Another approach would be to develop some arrangement for pooling and standardizing the sorghum syrup produced by small firms in the Southeast. Whether this is accomplished by a cooperative or by private enterprise, it could offer food distributors a uniform product, under one label, and reduce transportation costs by facilitating carlot shipments.
