Yield and Composition of Sorghum Juice in Relation to Time of Harvest in Oklahoma

James E. Webster, Donald Benefiel and Frank Davies

Growing sorghum for the production of sirup is an old industry and much has been written about the proper and suitable time to harvest the cane. General agreement is found in the various publications on sirup production that the best time to harvest is when the heads are in the soft dough or late dough stage. Warnings also are included to harvest before hard frosts. There is also general agreement that too early harvesting produces a green, immature tasting sirup.

In the area that includes Oklahoma, the problem of harvest is perhaps not quite so simple, and particularly is this true for large scale production. Sorghum reaches the soft dough stage in late August; and, barring extreme droughts, the plants will stay green until late October in many years. Large scale producers desire to spread the manufacturing season as much as possible, and often ask how long the cane can stand in the field before serious loss of yield or impairment in quality. Tests conducted at the Oklahoma Station have shown that good quality sirup can be made as late as mid-October. However, not much was known regarding the probable length of harvest season to secure maximum yield. The work reported here was conducted to answer this question.

REVIEW OF LITERATURE

Still the most extensive work reported with sorghum is that of Collier (3, 4, 5, and 6). Included in his reports are the analyses of 38 varieties of sorghums covering such topics as percentage of juice, specific gravity of juice, percentages of sucrose, glucose and non-sugar solids, and dimension and weight of stalks.