

Hybrids Trigger Rebirth

Of State Sorghum Industry

"In 1955, a 100 foot row was planted . . ."

That is exactly how hybrid sorghums started in Arizona. All the pioneer work was with grain sorghum until 1959. The renaissance of the sorghum industry in Arizona came with the hybrids. Sorghums were not new but the hybrids were, and this became the epoch milestone in their history in Arizona. Three small plantings, two by the University of Arizona and one by a commercial company, became the embryo of the rapidly growing industry as it is known today.

A few ounces of male sterile seed were furnished to Harold E. Jacka, Secretary, Arizona Crop Improvement Association, by a friend from a neighboring state. Mr. Jacka divided the lot, planting part of it in Maricopa county, and having County Agent Carmy Page plant the rest in Cochise county. The commercial company trial was made near Mesa. Of the three plantings, only the Cochise county planting set seed. Dr. Lee S. Stith, the newly employed sorghum breeder at the University of Arizona, immediately seized on this finding as a possible answer to the question of whether hybrid sorghum seed could be produced in Arizona.

Begin Two Phase Program

In 1956 the University of Arizona and the Crop Improvement Association embarked on a two phase sorghum program; production of hybrid seed and use of hybrids for feed purposes. The commercial company selling hybrids in the state at that time and the university distributed free of charge to farmers most of the hybrid seed grown for feed purposes that year, to encourage their trial in the state.

In fostering the production of hybrid seed as an industry in the state, Dr. Stith planted a three acre production block of what is now RS650 on the John Bretz, Jr. farm in the Kansas Settlement near Willcox. Seed set again was favorable, nearly 100 per cent as in 1955, and this gave promise of an industry.

Commercial organizations were supporting the industry very strongly also, evidenced by Northrup King and Company moving their breeding program to Phoenix, and Advance Seed and Grain Company making a trial planting of some 600 acres near Gila Bend. This first sizable attempt at production failed, due to an unexpected freeze in October of that year.

This article has no single author, but was prepared by the members of the Plant Breeding Department.

In 1957 commercial companies all moved toward the Willcox area. Advance Seed and Grain Company planted some 550 acres of seed increase fields and Mr. Bretz increased his planting to 120 acres. The Arizona Crop Improvement Association also took an unprecedented step in that certification was granted to closed pedigree hybrids (commercial) for the first time in the history of crop improvement associations.

Industry Aided Distribution

In the development of the use of hybrids for feed purposes, industry again distributed a large number of samples over the state. The university research program was expanded to test hybrids in the six southern counties of the state. The change was well under way, with hybrids having replaced nearly 10 per cent of the acreage formerly using standard varieties.

Things looked better in 1958. The University of Arizona program expanded to most of the northern counties with test plots. The Arizona Crop Improvement Association certified some 1400 acres of hybrid seed in the state. Commercial seed companies increased their seed production acreage considerably. Three commercial companies began pushing the sale of hybrid seed and some 50 per cent of the sorghum acreage in Arizona was planted to hybrids.

A winter growout of hybrid seed, to test purity and germination, was made in 1957 at Culiacan, Sinaloa, Mexico. This first growout was a cooperative try between the University of Arizona, the Arizona Crop Improvement Association and a commercial company. This was a success. In December of that year another winter growout at Culiacan included some 12 acres.

Acreage Increased in 1959

Commercial sorghum acreage increased in 1959 in the state, 80 per cent of that acreage planted to hybrid seed. Hybrid seed production was again expanded and some 6,000 acres were grown with 2,800 being certified. The winter growout in Mexico was increased to 38 acres.

Dr. Robert L. Voigt, newly employed sorghum breeder, took over the hybrid forage sorghum phase of the sorghum program being carried on by the university. In 1960 the sorghum industry is still growing. The industry began in 1920 with hegari as the principal variety. Arizona assumed the position of a ranking seed export state, then lapsed, and now once again has emerged as a hybrid seed producing state.