Alternative Crops in Arizona

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Arizona farmers have a wide variety of crops to choose from, for nearly every crop grown in the United States fits somewhere in the state. But over time a few crops have dominated in Arizona and these will likely continue to do so. Principal field crops have been cotton, alfalfa, sorghum and small grains. Cotton took big jumps in 1974, 1977 and 1978 and wheat accounted for more than one-third of Arizona's field crop acreage in 1976. State acreages for crops in Arizona as elsewhere represent the summing of judgements concerning probable yield, price, production costs and government programs as related to the crop considered. Growers will probably continue to use about the same mix of crops in 1979 as during the past decade.

Guar May Be Alternative

Guar fits well after wheat or barley at the lower elevations of Arizona, where it is planted from mid-June to mid-July. It is a warm weather, drought tolerant, deep rooted, summer annual legume. Guar yields have ranged from less than 1000 to more than 1500 lbs. per acre and the quality of Arizona produced guar seed is excellent. For the past couple of years guar has been contracted for about 10¢/lb. If this price strengthens a bit, guar could become a 20-25,000 acre crop in Arizona.

Plantago Is Specialty Crop

Plantago is grown for the mucilage-like material found on the seed hulls. Ground hulls are used primarily in the manufacture of medicines for constipation. Plantago is an annual, grown as a winter annual at elevations below 2500 feet in Arizona. At the lower elevations of Arizona plantago is planted in November with harvest about May 1. Weed control and harvest usually represent the most difficult problems for plantago.

Sorghum With Limited Irrigation

Sorghum planted in June at the lower elevations, and grown with limited irrigation, may be a good crop choice for 1979. Jim Armstrong, University of Arizona Extension Agent, produced 4970 lbs. of grain sorghum per acre at Marana with only 18 inches of irrigation water and about 5 inches of rainfall. Two University of Arizona graduate students, Masahito Sato and Satoru Miyata, have continued his studies. It appears that 4000 lb/acre yields of sorghum are possible with a consumptive use of 20 inches or less. As water becomes increasingly costly, limited irrigation of sorghum may become an economic alternative.

Safflower and Soybeans

Safflower is well adapted to the dry climate of Arizona. It is a contract crop and Arizona acreage is closely related to prices offered. At elevations below 3000 feet in Arizona, safflower is grown as a winter annual.

Soybeans continue to have a shatter problem and yields to assure profitability have often not been obtained. Also, soybeans are not very salt tolerant. Kino and Rillito are University of Arizona varieties with improved shatter tolerance. Also, Rillito is 2-3 weeks earlier than Kino. Soybeans fit nicely after wheat at the lower elevations. If problems could be handled, soybeans could become a profitable alternative crop.

Sugarbeets Have Been Solid

Commercial crops of sugarbeets have been produced on about 17,000 acres each year in Arizona for more than a decade. Beets are a stable crop. They are a contract crop and fit well in Arizona. Beets are spring planted in southeastern Arizona and fall planted at the lower elevations. They are an excellent alternative crop.

Seed Crops Offer Great Promise

The acreage of seed produced for certification in Arizona has tripled since 1969 thanks to the efforts of Bob Sackett, Manager of the Arizona Crop Improvement Association, and a dedicated group of Farmer Directors whose President is Floyd Spar. Germination and seed size for Arizona, low-humidity produced, certified crops is the highest in the nation. Ultimately crops grown for planting seed may be number one in Arizona.

Summary

Arizona farmers do have many alternative crop choices, but tried and tested crops now grown will continue to be front and center. Water and energy costs will provide the stimulus for the most efficient use of inputs. During the next several years it is likely that the greatest opportunities of all will be in the production of elite seed for United States and world markets.