GRAIN sorghum is grown principally in the central and southern Great Plains region. It also is grown in limited sections in the far-Southwest, mostly under irrigation, and in the Southeast. Grain sorghum is to the Great Plains what corn is to the Corn Belt.

Sorghum and cotton are grown in competition south of a line extending through from Clovis, New Mexico, to Guthrie, Oklahoma. North of this line sorghum competes with winter wheat. The extremely high prices for both wheat and cotton at the present time tend to limit the acreage of sorghum.

When and if over-production should occur in either wheat or cotton because of restricted foreign markets, the acreage of sorghum could quickly expand. This would not disorganize the agricultural practices of the region, since much of the same machinery used in the production of wheat can also be used in the production of sorghum. This has been made possible by the development of dwarf-growing grain sorghums that can be harvested with a combine.

Revolutionary Change in Height

The change in plant height was revolutionary, since the principal grain sorghums of less than a generation ago grew from 4½ to 6 feet tall, often with recurved heads which were harvested with much hand labor at a rate of from 25 to 50 bushels a day. Under favorable conditions an operator with a combine can harvest easily from 500 to 800 bushels or more per day. Modern machinery for large scale operations has greatly reduced the cost of sorghum production in an area where land is lower in value than in the Corn Belt.

Feeding experiments conducted by the Fort Hays Branch of the Kansas Agricultural Experiment Station over a 3-year period have shown that pound for pound the grain sorghums are identical in feeding value with yellow corn.

The grain sorghums can be made readily into starch by the wet-milling process as used for corn, with slight modifications in the plant when shifting from one crop to the other.

The starch from sorghum can be converted into dextrose syrup and a number of other products which can be utilized in the territory where the crop has its best adaptation.

Up to the time of World War II about 1.5 million acres of grain sorghums reached the terminal market for poultry feed. During this war large amounts were used in alcohol production and in the brewing industries.

The release in Kansas, in 1944, of a starch plant called Cody, which had a waxy endosperm, first stimulated interest in converting the crop into a specification for the tapioca starch from the Dutch East Indies. The planting of this variety in Texas for human food reached 5,000 tons annually. The product was used in the manufacture of Minute Dessert. Production for this purpose continued in 1947 because of importation of tapioca starch from Brazil. The imported starch was more costly than that made from Cody. Over five hundred acres of Cody were grown in Kansas to be processed in a pilot plant for new industrial products.

Larger Utilization in Prospect

One hundred thousand bushels of starch were processed in 1947 in a wet-milling corn plant at Kansas City, Mo., and a special study was made of products. A starch plant has just been constructed at Corpus Christi, Tex., which will have the capacity to produce seven million bushels of grain sorghum annually.