

plantings confirmed the desirability of the September 20 planting date for that location.

### Fertilizer Results Variable

In the Mesa test the highest yields were from the plots receiving 225 pounds of nitrogen per acre. At Yuma, the sugar beet yields were progressively higher for each addition of nitrogen to the highest rate applied, 275 pounds per acre. To the contrary, in a second fertilizer test at Yuma, the yields were essentially the same whether 25 or 275 pounds of nitrogen were applied. The variation in fertilizer response was undoubtedly a reflection of previous cropping and fertilizer practices.

The average calculated yield of the beet roots from all plots of the four varieties and all fertilizer treatments from the first two dates of planting at Mesa was 31 tons. These sugar beets had an

### Two Other Factors Are Very Important

The accompanying article covers the agronomic aspects of sugar beets in Arizona. Two non-agronomic factors — one economic and one political — which can make or break an area's sugar beet industry are a government quota and a beet processing plant.

Farm Bureau surveys of irrigation farmers in Arizona indicate there would be sufficient acreage contracted to amply provide tonnage for a sugar processing plant, if a quota were permitted for Arizona growers.

Arizona's congressional delegation has supported proposed legislation giving new quotas to Southwestern states. Gov. Paul Fannin, Dean Harold E. Myers of this university, Floyd Smith who is chairman of the governor's sugar beet study committee, and Bill Davis, secretary of the Arizona Farm Bureau Federation, made a pro-sugar beet presentation to Congress early this year.

Early this fall Rep. W. R. Poage (Texas), vice-chairman of the House Agriculture Committee, introduced legislation designed to put new acreage into sugar beet production.

The Poage bill is a compromise between two viewpoints, that of Southwestern congressmen wanting the former Cuban sugar quota to go to the Southwest, and the viewpoint of the U. S. State Department that the large Cuban sugar quota be given to friendly sugar-producing countries.

The Poage bill would give 75 per cent of the normal expanded domestic sugar production, resulting from population increases, to new beet growers on new acreage. The other 25 per cent would go to domestic sugar cane producers.



**DAVE AEPLI, veteran research worker and former superintendent at the Mesa Station, looks over the 1960-61 sugar beet plots at that station.**

average sugar content of 15.6% which represented a sugar yield of 9,670 pounds per acre. In the Yuma tests, the calculated yields of sugar beets from the four varieties at all levels of nitrogen application was 29 tons per acre. The average sugar content of these beets was 18.6%, giving a sugar yield per acre of 10,780 pounds.

### Results So Far Optimistic

While it is dangerous to draw conclusions from one year's data, the results from these tests support the conclusions from the previous tests. Sugar beets give excellent yields of good quality roots when grown in southern Arizona. Other tests are being made in Graham, Cochise and Yavapai counties with spring plantings. These and other tests will give further information on the potential of a sugar beet industry in Arizona.

## Turner Heads U A Safford Station

Dr. Fred Turner, a University of Arizona soils scientist for the last four years, became superintendent of the U of A Safford Experiment Station on July 1. This experiment station in Graham County is one of the branches of the

Agricultural Experiment Station in the College of Agriculture.

Investigations at the Safford Farm deal with salinity and alkali problems in soils and irrigation waters.

The Safford Farm, getting irrigation water from pumps and from the Gila River when available, grows cotton, safflower, small grains, alfalfa, bermudagrass, sorghum, pecans, sugar beets and castor beans. Investigations on these crops, and others, are conducted at the station by other U of A agricultural research scientists, also.

Turner was graduated from high school at Flagstaff, received his bachelor's degree from the University of Arizona, his master's at Washington State College and his Ph.D. at Michigan State University. He is a member of four professional societies in agronomy and soil science; and author of various technical papers dealing with soil management and soil chemistry.



**DR. FRED TURNER**



**ROADSIDE VIEW of the Safford Branch Station with cotton plots in the foreground.**