



WEST SIDE FIELD STATION

A brochure locating and describing all of the agricultural field stations operated by University of California is available free. Write to AGRICULTURAL PUBLICATIONS, University Hall, University of California, Berkeley 4, California

WEST SIDE FIELD STATION at Five Points in Fresno County serves what is probably the most productive and wealthiest comparable agricultural region in the world. The San Joaquin Valley's total agricultural wealth exceeds that of more than 30 states in the Nation. This largest agricultural area of the State includes over half of the irrigated acreage, accounts for about 40% of the total agricultural production and 60% of California's field crops.

Research at the Station is aimed basically at developing better field crops and varieties, as well as improving management practices for solutions to farming problems within this particular soil-crop-climate complex. The area includes a 50-mile-wide strip along the west side of the San Joaquin River extending for about 200 miles from San Joaquin County to the Tehachapi range, south of Bakersfield.

The Station resulted from recognition by growers and the University of the need for research on farm problems within this area. The San Joaquin Valley Field Crop Station Trust, supported by farmers and agri-business people of the area, was organized in 1958 and obtained contributions totalling about one quarter of a million dollars in terms of cash, land, equipment or special prices and facilities. The deed for the 320-acre station site was accepted by the University of California in May, 1959. By July, 1959, a superintendent had been selected, and the station was underway.

Major emphasis has been on field crops, including cotton (in cooperation with USDA and University personnel of the U. S. Cotton Field Station, Shafter); alfalfa seed and hay, melons, irrigation and soils, and entomological research.

Projects have also included grain sorghums, oil crops, grass seed production, vegetable crops and viticulture, with supporting work in entomology, irrigation, plant pathology and soils. The first safflower irrigation trials in the area were conducted at the Station, and several thousand acres of this oil crop are now being grown in the Valley. Several new practices in irrigation management, developed in the four years of research at the Station, are expected to contribute to improved yields of alfalfa seed, cotton, melons and hay.

CURRENT PROJECTS AT WEST SIDE FIELD STATION

Alfalfa Seed Production—Luther G. Jones, Agronomy Dept., Davis

Alfalfa Irrigation Trials—C. R. Pomeroy, Department of Irrigation, Davis, and Superintendent, West Side Field Station; L. G. Jones, Agronomy Dept., Davis

Aphid Trapping—W. H. Lange, Dept. of Entomology and Parasitology, Davis

Cantaloupes—Yield and Quality Influenced by Irrigation & Fertilization—W. J. Flocker and R. M. Davis, Vegetable Crops Dept., Davis; R. J. Miller, Irrigation Dept., Davis, West Side Field Station

Cantaloupes—Advance Breeding Lines—Glen N. Davis, Veg. Crops Dept., Davis

Cantaloupes—Variety Test, Seed Source—Armen V. Sarquis, Agricultural Extension Service Farm Advisor, Fresno

Cereal Strain Test—M. D. Miller, Agronomy Dept., Davis

Cotton—Date of Planting, Plant Spacing, Nitrogen Relationships—V. T. Walhoad, J. L. McGurk, USDA, U. S. Cotton Field Station, Shafter

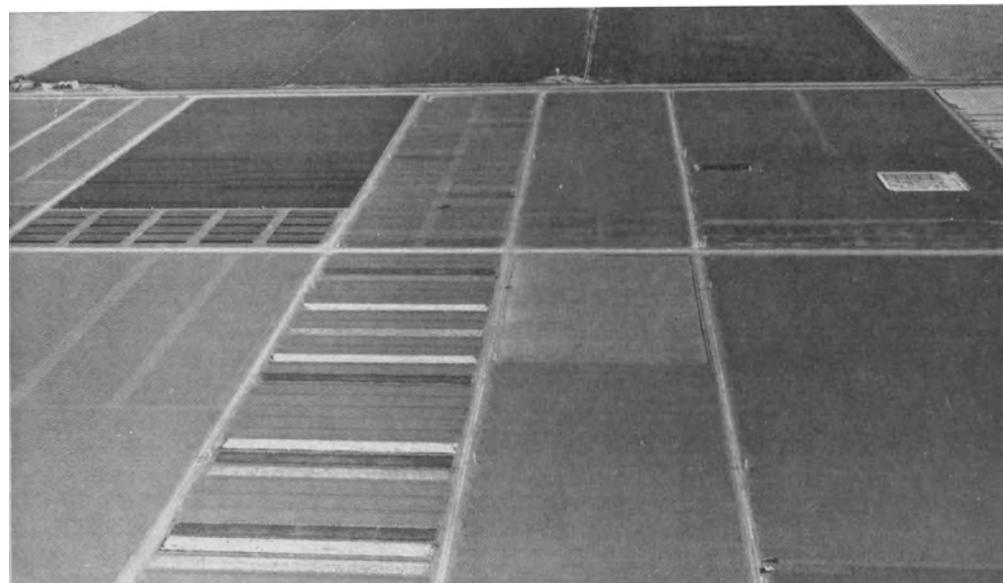
Cotton Entomology—T. F. Leigh, Entomology Dept., Davis, U. S. Cotton Field Station, Shafter

Cotton Fertilization—Dick M. Bassett, Agron. Dept., Davis, U. S. Cotton Field Station, Shafter



New cotton strain developments of Acala 4-42 are shown and discussed for farmers and agribusiness visitors touring the West Side Station during a recent annual fall field day program.





Aerial photo of experimental plots at West Side Field Station. Small plots seen left of center in photo are part of a series of long-range experiments in soil physics, and include eight treatments replicated five times. One plot, known as the "museum piece," has been left untouched since the Station opened in 1959, others are being used for crop rotation testing, some are planted to only one crop, some are deliberately wet cultivated, and others ripped deeply after harvesting.

Cotton Irrigation—John R. Stockton, Irr. Dept., Davis, U. S. Cotton Field Station, Shafter
Cotton Physiology—V. T. Walhood, U. S. Cotton Field Station, Shafter
Cotton Seed Treatment—R. H. Garber, Dept. of Plant Pathology, Davis, U. S. Cotton Field Station, Shafter
Cotton, Host Plant Resistance to Spider Mites—T. F. Leigh, Ent. Dept., Davis, U. S. Cotton Field Station, Shafter
Cotton, Variety and Strain Test—J. H. Turner, U. S. Cotton Field Station, Shafter; Merrill Lehman, U. S. Cotton Field Station, Shafter
Crop Disposal and Land Preparation—Lyle Carter, U. S. Cotton Field Station, Shafter
Grape Variety Trials—C. J. Alley, Dept. of Viticulture and Enology, Davis
Dryland Range Grasses—Beecher Crampton, M. R. Love, Agron. Dept., Davis
Gypsum Irrigation Project—H. Yamada, West Side Field Station
Oil Crops—Sesame—R. T. Edwards, Dept. of Agron., Davis
Safflower Irrigation, Population, Fertilization—P. F. Knowles, Dept. of Agron., Davis; C. R. Pomeroy, Supt., West Side Field Station; V. Q. Hale, Agronomy Dept., Davis and West Side Field Station

Safflower, Post-Emergence Herbicides—Bill B. Fischer, Agricultural Extension Service, Farm Advisor, Fresno
Sugar Beets, Soil Moisture, Soil Fertility—R. S. Loomis, Agron. Dept.; L. D. Doneen, Irr. Dept., Davis; J. R. Miller, Irrigation Dept., Davis and West Side Field Station; and V. Q. Hale, Agronomy Dept., Davis and West Side Field Station
Soil Moisture Studies—D. R. Nielsen, Irr. Dept., Davis
Soil Physics—S. J. Richards, Dept. of Soils and Plant Nutrition, Riverside
Corn & Sorghum Trials—Dale G. Smeltzer, Agron. Dept., Davis
Effects of Changing Water Quality on Infiltration Rates—L. D. Doneen, Irr. Dept., Davis
Weed Control—Cotton—John H. Miller, USDA, Shafter

**NEW PROJECTS, CROP YEAR 1963
WEST SIDE FIELD STATION**

Influence of Soil Moisture and Tillage Depth on Precision Tillage for Cotton Production—J. R. Stockton, Irr. Dept., Davis, U. S. Cotton Field Station, Shafter; L. M. Carter, U. S. Cotton Field Station, Shafter
Distribution of Soil Water and Salt Related to

Irrigation Practices—R. J. Miller, Irr. Dept., Davis, West Side Field Station
Influence of Irrigation and Nitrogen Treatments on the Production of Sugar Beets in the San Joaquin Valley—R. J. Miller, Irrigation Dept., Davis, and West Side Field Station; L. D. Doneen, Irr. Dept., Davis; V. Q. Hale, Agron. Dept., Davis, West Side Field Station
Factors Involved in Occasional Foliar Damage of Young Cotton Plants under Sprinkler Irrigation—R. J. Miller, Irrigation Dept., Davis, and West Side Field Station
Nutrition—Irrigation Study on Safflower—V. Q. Hale, Assistant Agronomist, West Side Field Station; C. R. Pomeroy, Supt., West Side Field Station; P. F. Knowles, Agron. Dept., Davis
Phosphorus Requirements of Seed Alfalfa—V. Q. Hale, West Side Field Station
Ability of Alfalfa Varieties to Extract K from Soil where Supply is Marginal—V. Q. Hale, West Side Field Station
Root Distribution of Alfalfa and Safflower under Different Irrigation Treatments—V. Q. Hale, West Side Field Station
Water Movements Beneath Experimental Ground Water Recharge Plots—L. Schiff, A. R. S., Fresno
Experimental Analysis of Field Variation in Market Cantaloupes—Ralph Davis, Veg. Crops Dept., Davis
Alfalfa Variety Trials for High Production—Vern Marble, Ag. Extension Serv., Davis; Luther Jones, Irr. Dept., Davis; C. R. Pomeroy, Supt., West Side Field Station
Skip Row Cotton Planting Studies—V. T. Walhood, U. S. Cotton Field Station, Shafter

Range grass seed nursery plots, left photo, were discontinued at the Station after negative results were obtained in attempts to find more productive varieties for the area. Pump for irrigation at West Side Station, right photo, is typical of commercial farming installations on the west side of the San Joaquin Valley. Water is lifted 560 feet into the plastic-lined reservoir to left for distribution to fields by either gravity flow or sprinklers.

