Antelope Valley Field Station

YEARS AGO, a traveler would probably have hurried through the sage brush and Joshua trees of the Antelope Valley's desert wasteland. Today, thanks to the introduction of water and adapted crop varieties, this valley contributes significantly to the wealth of Los Angeles County, which still rates among the top agricultural counties of the nation, despite urbanization. Much of the area is now green with field and row crops and some fruit is produced around Littlerock and Pearblossom.

Hot summers, cold winters and almost year-around winds of this relatively high-altitude desert area (2,500 feet) create special problems for farmers. The University's agricultural field station, now on an 80-acre plot of land about 10 miles west of Lancaster, was first established in 1949 at another site and was moved in 1953 to the present location. In addition to assisting with localized farm problems, the station's particular climatic conditions make it also valuable in statewide agricultural research programs.

Research work at the Antelope Valley Field Station is about equally divided between dryland and irrigated agriculture. Dryland research, mostly on cereals, consists of cultural and rotation studies, weed control, fertilizer studies and variety testing. Work on irrigated plots deals with field, vegetable and horticultural crops. Soils and irrigation studies are conducted in connection with both the dryland and irrigation research programs. Research at the station is directed by the station staff and scientists from the Riverside, Los Angeles and Davis campuses. A listing of the projects currently underway is included on the opposite page.

This is the fifth article of a series featuring the agricultural field stations operated by the University of California. The stations are located from the Oregon to the Mexican borders. A brochure locating and describing all of the field stations is available free. Write to AGRICULTURAL PUBLICATIONS, University Hall, University of California, Berkeley 4, California.

Cereal test plots with plantings of oats, barley, wheat, and rye are aimed at determining best varieties of these grains for the Antelope Valley.

Left photo: propagation nursery area at the Antelope Valley Field Station is used primarily for production of strawberry plants, which are then tested in other areas of the state. Windbreaks are not part of the test, but were necessary to protect the plants from the high winds characteristic of the region. Right photo: ground covers and ornamentals being tested in plots at the Antelope Valley Field Station to determine which plants survive the cold winters and hot, windy summers prevailing in the Antelope Valley area.

Resistance to water penetration of some soils in the Antelope Valley is being studied in this test plot at the Antelope Valley Field Station. Alfalfa is being grown on soil that will not accept water readily. Neutron access tubes allow sub-surface water movement studies aimed at improving crop yields and quality.

SOME CURRENT PROJECTS AT ANTELOPE VALLEY FIELD STATION

Dry-farmed grainland tillage and fertility investigations for Antelope Valley: Ralph Luebs, A.R.S. and Dept. of Agronomy, Riverside, and Wylie D. Burge, Superintendent, Antelope Valley Field Station.

Small grain variety trials for the Antelope Valley: C. A. Suneson, Dept. of Agronomy, Davis, and W. D. Burge.

Sugar beet weed control, management of preemergence herbicides under both sprinkler and row irrigation: L. S. Jordan, Dept. of Horticulture, Riverside; W. H. Isom, Agricultural Extension, Riverside, and W. D. Burge.

Sugar beet nitrogen management trial: R. S. Loomis, Dept. of Agronomy, Davis; F. J. Hills, Agricultural Extension, Davis, and W. D. Burge.

Tomato varieties observation plantings for the Antelope Valley: Hunter Johnson, Agricultural Extension, and W. D. Burge.

Alfalfa variety trial for the Antelope Valley: W. H. Isom, Agricultural Extension; W. H. Lehman, Dept. of Agronomy, El Centro; D. M. May, Agricultural Extension, Lancaster, and W. D. Burge.

Strawberry nursery selection increase: Victor Voth, Pomology, South Coast Field Station.

Evaluation of ground cover plants for landscape purposes: R. D. Danielson, Landscape Horticulture, Davis.

Effects of irrigation, manure and windbreaks on the production of sweet corn: G. L. Cannell, Dept. of Vegetable Crops, Riverside, and W. D. Burge.

Asparagus studies (effects of climatic conditions on the food reserves of five varieties of asparagus): F. H. Takatori, Dept. of Vegetable Crops, Riverside; J. I. Stillman, Dept. of Vegetable Crops, Riverside, and O. D. McCoy, Dept. of Vegetable Crops, Riverside.

Alfalfa poor-growth area improvement: W. D. Burge, John Letey, Dept. of Soils and Plant Nutrition, Riverside; E. C. H. Hsia, Dept. of Irrigation and Soil Science, Los Angeles, and Nicholas Valoras, Dept. of Irrigation and Soil Science, Los Angeles.

Engineering studies of floriculture and plant nursery studies: R. L. Perry, Agricultural Engineering, Los Angeles, and R. M. Perkins, Agricultural Engineering, Los Angeles.

Safflower irrigation and date of planting for the Antelope Valley: D. M. Yermanos, Dept. of Agronomy, Riverside; R. E. Luebs, Dept. of Agronomy, Riverside, and W. D. Burge.

Garlic observation planting: Hunter Johnson, Agricultural Extension, Los Angeles.

Flax regional yield test: D. M. Yermanos, Dept. of Agronomy, Riverside.