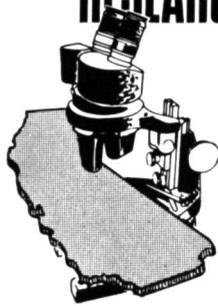
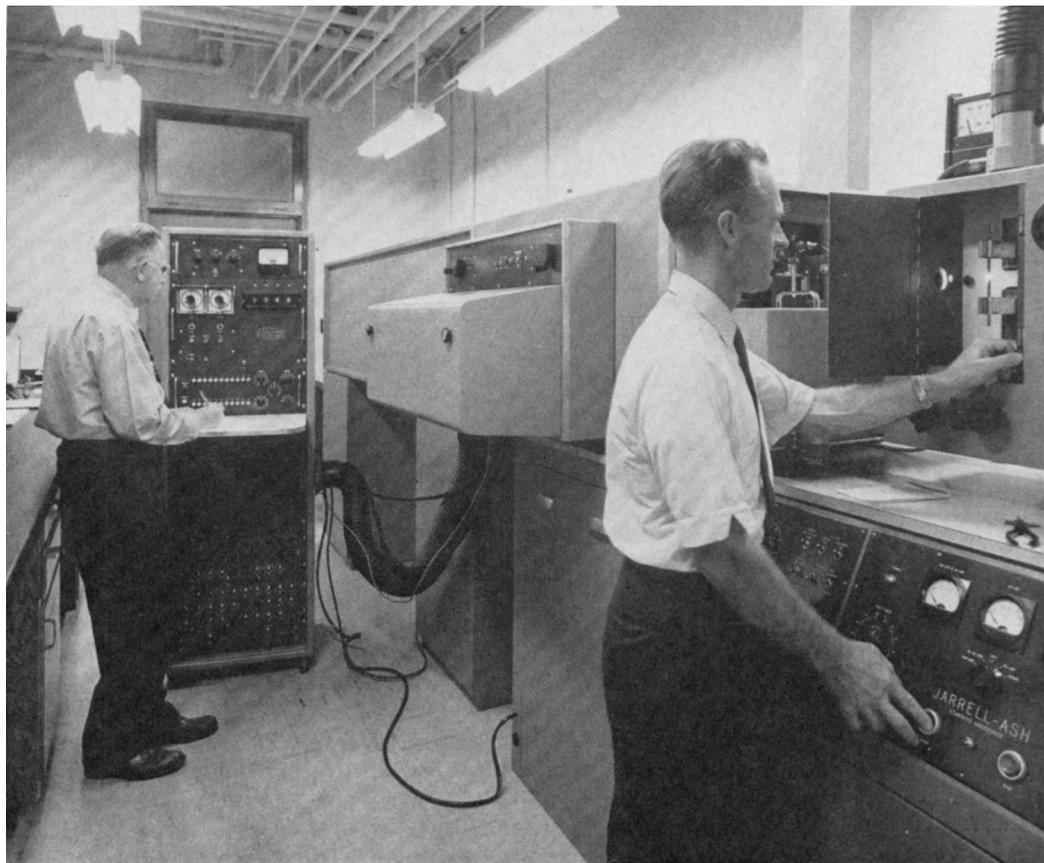


RESEARCH PREVIEWS



A continuing program of research in many aspects of agriculture is carried on at University campuses, field stations, leased areas, and many temporary plots loaned by cooperating landowners throughout the state. Listed below are some of the projects currently under way, but on which no formal progress reports can yet be made.

WATER SCIENCE, U. C. RIVERSIDE



A room full of the most advanced water analyzing equipment is seen in photo above, at University of California, Riverside. This new direct-reading spectrograph is capable of trace element analysis 25 times faster than the 35-year-old model it has replaced. Water samples are burned in an electric arc in the unit to the right, and the analysis of trace element data appears on read-out system to left, rear. A statewide testing program has been set up at Riverside to determine what minerals are in California's many sources of water—particularly the trace elements that can vitally affect the health of man, plants and animals. Researchers Gordon R. Bradford and Parker F. Pratt are collecting and analyzing water from every major water source in California during the three-year study being conducted under a \$100,000 grant from the U.S. Public Health Service (half of which was used to purchase the giant analyzer pictured above).—Photo by Robert Boardman.

PLANTING DATE AND INSECT CONTROL IN SUGAR BEETS

Curly Top and Yellows virus complex can be disastrous diseases of sugar beets. Both are transmitted by insects whose migrations are seasonal. Tests are being conducted at the West Side Field Station to establish a date of planting for sugar beets to best avoid these diseases.

PLANT POPULATION FOR CANNERY TOMATOES

The average tomato plant population has increased from about 3,000 to over 25,000 in the last three years. Precision planting, without thinning, is possible with present weed control methods. Scientists at the West Side Field Station are investigating how many plants can be tolerated in a clump and still maintain yield and quality.

HEAT THERAPY

Plant pathologists at Davis have had some success in using heat therapy to cure five different virus diseases in both fruit trees and ornamental plants. Several clones freed from virus were added to the Foundation Plant Materials Service inventory.

MECHANICAL LETTUCE HARVESTER

Experiments conducted at Davis lead vegetable crops specialists to believe that a relatively simple mechanical lettuce harvester is possible—one with an improved method of selecting heads for cutting. Further work is planned.

LYGUS DAMAGE

The importance of lygus bug control in ladino clover fields was indicated during work by Davis entomologists who found that an increase of one bug per sweep in the seasonal mean can result in a loss of over 30 pounds of seed per acre.

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FREEZING PREPARED FOODS AT HOME. Cir. 524, revised. Instructions on how to freeze and store everything from spaghetti and meat balls to cream puffs. Lunches, diet foods, and desserts can be made in quantities for several days' use and frozen. In a section, "How to Prepare, Package, and Serve Combination Foods," the circular gives specific instructions on freezing individual foods.