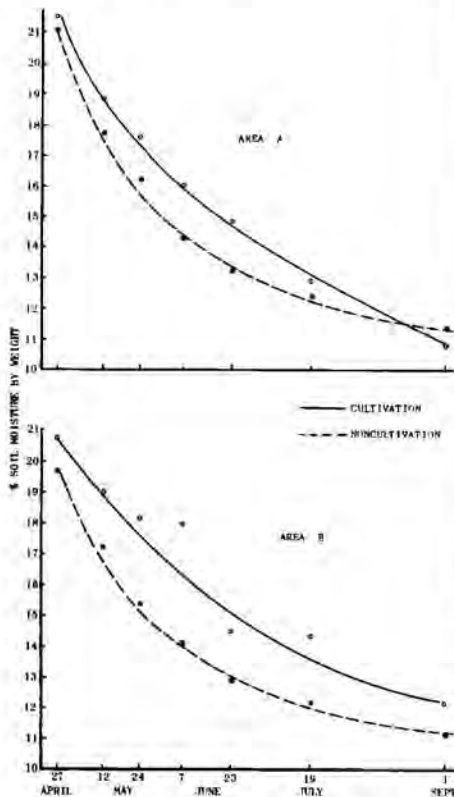
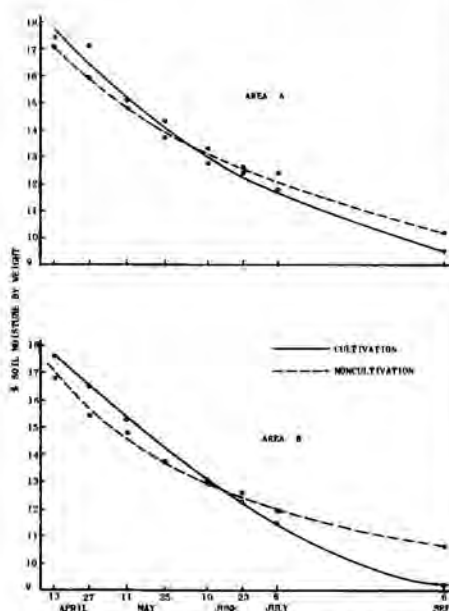


ACTUAL AND POTENTIAL WATER USE  
IN A YOLO COUNTY ALMOND ORCHARD  
(Data from 0 to 3 ft level)

Month	Actual water use acre/ft			Potential water use acre/ft		
	Year			Year		
	1964	1965	1966	1964	1965	1966
May	0.9	2.3	1.1	6.4	7.4	6.8
June	0.5	1.1	0.7	6.7	7.3	7.9

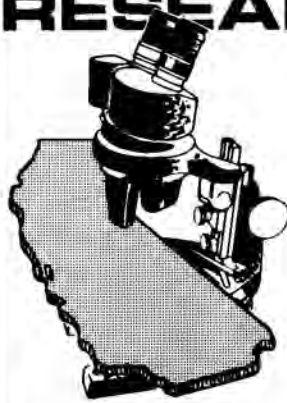


Graph 2. Moisture content of soil in cultivated and non-cultivated dry land almond orchard—Capay Valley, Yolo County, 1965.



Graph 3. Moisture content of soil in cultivated and non-cultivated dry land almond orchard—Capay Valley, Yolo County, 1966.

# 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.

## CITRUS THRIPS CONTROL

Entomologists at Riverside are experimenting with a plot in which the native California sumac has been interplanted between the rows of citrus trees. Since the sumac is preferentially attractive to citrus thrips it is thought that all or most of the thrips will be drawn away from the citrus to the sumac. The sumac bushes are not yet large enough for conclusive evaluation of the project.

## INCOMPLETE CHICKENS

Poultry husbandmen at Berkeley are trying to determine why the removal of a chicken's pancreas, which supplies glucagon and insulin, does not lead to diabetes as it does in the mammal. The chickens survive but do not increase body weight normally, nor do they accumulate body fat as do normal chickens.

## POLLENIZING DATES

With the adoption of mechanical date harvesting an accomplished fact, agricultural engineers at Riverside are turning their attention to developing mechanical means of pollenizing the fruit. The most promising method tried so far involves the use of helicopters. Further studies are aimed at refining the techniques.

## SIDE CRACKING OF PRUNES

Pomologists at Davis have found that side cracks appear most commonly on prunes growing on the south or southwest sides of trees, and on the outer (exposed) side of the fruit. This may be related to differences in temperature and moisture content found between the outer and inner sides of the fruit. Additional experiments planned include tests with spray applications that might reduce the susceptibility of prunes to cracking.

## ROOTING OF PLANTS

Controlled environment experiments by floriculturists at Los Angeles have shown that the rooting of ivy stem cuttings may be affected by the color of the light to which they are exposed during growth of the stock plant. Those exposed to red light formed more roots than those under blue or low-intensity white light. It is planned to continue these experiments using other plants and other light colors.

## POTATO TUBERMOTH RESEARCH

Entomologists at Davis are trying to isolate the sex attractant produced by the female potato tubermoth. Extremely small amounts of the material will attract males in the laboratory. Field application is being tested for possible use as an attractant in traps.

## RUSSIAN THISTLE CONTROL

Riverside and cooperating federal entomologists are seeking (overseas) one or more host-specific insects that will attack and destroy Russian thistle. The insects that now prey on the thistle in California cause little injury to this introduced weed and attack many other plants as well.

## SOLAR RADIATION STUDIES

Agricultural meteorologists are developing techniques and instruments to increase knowledge of two aspects of solar radiation—that which comes through to the earth's surface, and that which reflects outward to space from the earth and atmosphere. That which reaches the earth's surface has an important effect on plant growth, animal responses, and even the design of buildings. That which is directed to space is sensed by meteorological satellites and is important in determining the energy budget of the entire earth-atmosphere system.