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# RESEARCH BRIEFS

*Short Reports on  
Current Research in  
Agricultural Sciences*

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## CITRUS NEMATODE BIOTYPES

PRELIMINARY DATA on the distribution and prevalence of different biotypes of the citrus nematode in California show a scattered, wide distribution pattern for four biotypes. Biotypes are important in the selection and development of citrus nematode-resistant rootstocks. Some selections of trifoliolate orange and certain citranges differ in their susceptibility to different biotypes of the citrus nematode. This survey is being continued.—*R. C. Baines, Dept. of Nematology, U.C. Riverside.*

## GRAPEFRUIT RIND BREAKDOWN

WITH INCREASED plantings of summer grapefruit, the problem of rind breakdown gains importance. Rind staining and/or concentric rind stipple are fairly common in certain years. However, during the 1973 season, a number of lots of fruit had a rind breakdown and/or decay either at packing or during shipment. A large committee of UC and Sunkist researchers, packinghouse managers, and a local laboratory manager has been assembled to make a long-term study of the problem. It appears from preliminary leaf analysis data that some groves with high nitrogen experienced more rind breakdown.—*R. M. Burns, Cooperative Extension, Ventura County.*

## PESTICIDE

## FARM WORKER SAFETY DATA

Tractor-drawn spray rig was photographed being used in tests by U.C. researchers to establish better scientific criteria for safe worker re-entry periods after applications of organo-phosphorous pesticides to certain crops in California. Pesticide residue data from this first of eight studies over a four-year period are now being analyzed at the Food Protection and Toxicology Center, U.C. Davis, under Director W. W. Kilgore. The project was funded by a grant from the National Institute of Health and also involves assistance from researchers in the Department of Agricultural Engineering, the Department of Community Health of the Medical School at U.C. Davis, and U.C. Cooperative Extension. J. Blair Bailey, Pesticide Safety Specialist, Division of Agricultural Sciences, Berkeley-Statewide, was a field coordinator at the 65-acre peach test plot at the Fred Heringer ranch near Oroville. The material applied was Guthion, a widely used organo-phosphorous insecticide. Future tests will involve other materials, as well as other crops such as lettuce, grapes, and artichokes. Hand thinning of the peaches in the test plot was begun 14 days after the applications. The tests will also provide confirmation of existing re-entry regulations by supplying scientific data to the California Departments of Food and Agriculture, and Health. The tractor operator was wearing full protective coating, including hard hat, goggles, respirator, waterproof clothing, boots and gloves (lower photo to right).



### CALIFORNIA AGRICULTURE

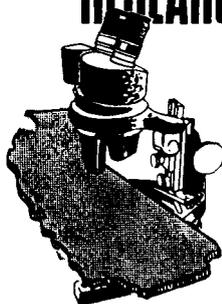
Progress Reports of Agricultural Research, published monthly by the University of California Division of Agricultural Sciences.

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Agricultural Publications

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## 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.

### WEED-EATING INSECTS

BIOLOGICAL CONTROL specialists at Berkeley are attempting to find otherwise harmless insect predators that will help to control Scotch broom, tansy ragwort, gorse, and hoary cress.

### ARE CO-OPS EFFECTIVE?

BY TRACING the history of the major agricultural cooperatives in California, economists at Berkeley hope to provide an improved basis on which California farmers many use such associations as effective tools for solving marketing problems.

### DECONTAMINATION OF FEEDSTUFFS

SCIENTISTS AT DAVIS are investigating pesticide residues and searching for ways to remove them or render them harmless by chemical or physical means, or by a combination of both. Research will be concerned primarily with the pesticides most likely to present problems in the more important feedstuffs and associated foods.