# STORED-PRODUCT INSECT INVESTIGATIONS, UC RIVERSIDE







CROWDED LABORATORIES seen in photos above taken in the Department of Entomology, Riverside, show the data analysis stage of an extensive study on stored-product insects being conducted under the direction of R. G. Strong, Associate Entomologist. Samples being analysed were collected through the use of a sheltered food-packet technique developed for the research program. Goal of the study is to determine the distribution, and relative abundance of Trogoderma and associated species of stored-product insects in various climate regions of California. In the first three years of the study, 3,110,505 specimens were collected from 21,494 food packets distributed at 1,570 different sites throughout the state. Climate preferences varied among species, as show by differences in distribution and abundance in high mountainous areas with the coldest winters, coastal areas with direct ocean influence, coastal valleys, intermediate valleys, foothills and low mountains, the Central Valley, the Mojave Desert, and the low desert with hottest climate. Temperatures of 80 to 90 degrees F and 45 to 55% relative humidity appeared to be the most favorable conditions for all species. Mortality resulted with increased temperatures, and development was retarded with lower temperatures. The food packet adopted for use contained a mixture of poultry laying mash, rolled barley, wheat and corn, and was tied up in cheesecloth, then covered with ½-inch-mesh hardware cloth. The packets were exposed to natural infestations during the spring and summer, (usually for 4 to 5 months) under the shelter of such nonstorage facilities as carports, garages, equipment sheds, abandoned dairy barns or poultry houses, old livestock barns or other structures not being used to store dry food products or seeds or feeds.

# **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.

### CARROTS DENNIS MIGHT LIKE

A group of nutritionists from Davis have conducted studies on consumer preferences for carrots having different textures in an attempt to find out what people like or dislike about that vegetable. Possible outcome could be development of tastier, better-liked carrots that even Dennis the Menace would enjoy.

## IMPROVED HATCHABILITY

The results of a study in the Department of Poultry Husbandry, Berkeley, serve to suggest possible changes in incubator operation during the terminal stages of chick embryonic development to improve hatchability.

#### PRUNING REFUSE

How refuse from an orchard is disposed of can influence the spread of disease-producing organisms such as *Armillaria mellea*. Plant pathologists at Berkeley and Riverside are attempting to determine the best methods of disposing of refuse.

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