

diacetate from 2-methylnaphthohydroquinone and phytol or phytol acetate can be improved by the introduction of borotrifluoride etherate as an acid condensation medium. In the Hoffmann-La Roche laboratories in Basle, Switzerland, the synthesis has been carried out using the following: phytol, phytol acetate, phytol formate, phytol dichloroacetate, phytol methyl ether, synthetic isophytol, isophytol acetate, and isophytol from optically active phytol.

### Ground Limestone Good Insecticide Carrier, Finds USDA

A free flowing limestone dust giving good coverage of plants from airplane and ground equipment has been reported by entomologists of the Department of Agriculture. Previously limestone has been considered too alkaline and mechanically unstable for use as a carrier dust; however, according to the USDA a manufacturer in the South has developed a chemical process which yields a dust which flows freely and stores well even under moist conditions.

The entomologists reported that limestone mixtures with DDT, EPN, gamma BHC, and parathion all were effective after a year of storage. They reported that: "None of the insecticides broke down or lost their effectiveness when stored in glass-stoppered bottles at room temperatures." Only BHC showed appreciable deterioration following storage in paper bags at 100% humidity.

### Illinois Planning Research Center for Corn Genetics

The University of Illinois is planning to inaugurate a corn genetic research center July 1. Included in the plans is a scheme to maintain genetic corn stock of the corn belt region. The genetic project will be supervised by Marcus M. Rhoades and J. R. Laughnan, professors at the university.

In addition to maintenance of present genetic stocks the center will: develop new combinations of chromosomal testers, determine linkage relations of unplaced genes, and search for new genes.

The project will be supported by a grant from the U. S. Department of Agriculture.

### Leaf Analysis to Study Nutrients Efficiency in Orchards

Leaf analysis and tree symptoms are considered the best basis for studying nutritional problems in California orchards, according to Omund Lilleland of the University of California. As the result of his analyses of leaves he says that fertilizers applied on the soil in some

California orchards remains positionally unavailable and are not absorbed by the trees.

For this reason leaf analysis has been favored for evaluating the nutrient needs of the orchards in California. The technique has proved valuable in establishing requirements for potash, magnesium, and manganese in many orchard trials.

### Keep 'Em Happy and They'll Lay

The University of California has a research problem aimed at more and better production from the laying hen. One group of workers has been studying the effect of sunlight and other environmental factors on egg production. They found that 13 hours of light was about optimum for laying hens, in the absence of sunlight artificial light seems to be an adequate substitute.

Another group at the University has started on a project to break 17,000 eggs, hoping to find whether a whole flock of chickens can lay grade AA eggs. These researchers believe that by examination of the interior quality of eggs they may be able to develop a superior genetic stock combining the two desirable features of quality and quantity production. The egg breaking experiment is part of the project to evaluate egg quality.

### Education

#### Aids to Graduate Students In Food Technology at MIT

Scholarships, fellowships, and assistantships are available to qualified graduate students who wish to study in the department of food technology at Massachusetts Institute of Technology.

The aids for the year 1953-54 are available to students who desire to specialize in various fields of food technology. Many of the fellowships are sponsored by the food industry. In addition recipients of several national fellowships awarded by such agencies as the National Research Council and the National Science Foundation choose to do their graduate work at MIT.

Further information may be obtained from the Director of Admissions, Massachusetts Institute of Technology, Cambridge 39, Mass.

### \$100,000 Worth of Canning Equipment Given to U. of Calif.

More than \$100,000 worth of food processing equipment has been received in the food technology building at the University of California's Davis campus. The two dozen pieces of equipment, most of them donated by industry, are expected by Sherman J. Leonard, associate

specialist in food technology, to make the Davis pilot plant the most fully equipped in the nation for food processing research and teaching.

According to Leonard, the pilot plant will be able to handle most of the fruits and vegetables processed in California under conditions similar to commercial canneries.

Peach pitters, pit shaker, cup down, rotary washer, conveyors, elevators, graders, sorting conveyors, cooker and siruper, cup-down peeler-blancher, and distribution systems are among additions to the canning line.

The university hopes to have additional equipment for studying tomatoes and their products, fruit juices, and concentrates eventually.

### Government

#### Congress Discusses Inspection Legislation

Representatives of the canning and drug industries have urged passage of legislation pending before congress which would grant the Food and Drug administration a legal basis for inspection of processing plants. The legislation was introduced following the Supreme Court decision in the Cardiff case, in which the court ruled that, under existing law, the FDA does not have the right to inspect plants without the owner's permission.

Secretary Hobby has testified that the legislation has been introduced for the sole and limited purpose of eliminating the requirement that permission be granted before inspection can take place. The hearings have, however, developed into a discussion of the whole problem of inspection procedures with several congressmen expressing interest in the methods and limits of inspection after entry has been granted.

Current discussion seems to center on how far the right to inspect should extend, prescriptions and manufacturers formulations have been cited as material which the manufacturer should be able to restrict from inspection. The discussion of procedure developed as a result of consideration of the brief filed in the Cardiff case by the FDA. Some critics believe that the FDA claimed rights to inspect privately developed processes in that brief.

#### FDA Cool Toward Cold Sterilization

The Food and Drug Administration will not stand as a bar to progress in the use of cold sterilization of foods and antibiotics, according to W. B. Rankin.

Rankin, assistant director of field