NEW PUBLICATIONS

ready for distribution

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CHEMISTRY OF LIME IN AMMONIATED WATERS FOR SEALING CONCRETE PIPELINES. Bul 841. A cheaper method of repairing cracks in concrete pipelines would be to treat the flowing irrigation water with ammonia and other amendments to make lime precipitate, adhere to the concrete, and seal the cracks. Intended for irrigationists, agriculturists, engineers, concrete-pipe manufacturers, and others concerned with large-scale irrigation operations and the repair of pipelines. This bulletin discusses results of laboratory studies in California waters, the chemistry of lime formation, and the nature of the precipitates.

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AGRICULTURAL FIELD STATIONS AND EXPERIMENTAL AREAS. A listing of the numerous University of California field stations and experimental areas. This brochure includes addresses of the various properties, accounts of how and when they were first obtained or leased, and it summarizes the kinds of research done at the different areas.

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GUM DISEASES OF CITRUS IN CALIFORNIA. Cir. 396, revised. Designed to help growers recognize the various types of gummosis and to prevent or combat them.

CALIFORNIA AGRICULTURE

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

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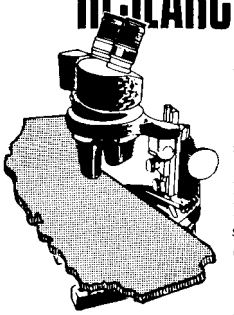
"Space" Chamber U. C. Berkeley

NOT ALL OF THE SPACE EXPLORATION originates in Houston, or Cape Kennedy. Some of it has been and is being carried on in Berkeley, at the University of California's Oxford Tract. Experiments with light and heat have been conducted in orbital time cycles similar to those practiced by spacemen by using a series of climate control chambers. In this picture, Albert Ulrich, University plant physiologist, photographed above in one of the control chambers, is checking sugar beet plants that have been growing in an "astronaut's orbital cycle." This means alternating periods of 45 minutes in the light and 45 minutes of darkness. These plants did not develop as healthy a green color as those grown in a normal day-night cycle of 12 hours of light and 12 hours of night. The Oxford Tract plant growth chambers have been programmed for many experiments with simulated climates or special environmental conditions.

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.

CHEMICAL PRUNING

If experiments being conducted by environmental horticulturists at Davis are successful, it may be possible for professional gardeners and others to control the size of shrubs and trees with chemicals, thus eliminating the need for periodic pruning.

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SOIL RECLAMATION

Experiments in western Kern County indicate that it may take as much as 36 inches of water per foot of soil to leach the sodium and boron out of some soils found there. Amendments added to the soil during the tests seemed to make no difference in the leaching process. Only the amount of water applied appeared to be significant.

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PREVENTING CITRUS DECAY

The problem of fumigation of top-grade citrus for decay control, without contamination of cull fruit to be used for livestock feed may be solved by a technique developed by Riverside plant pathologists. Injection of the fumigant into the carton after the fruit has been packed seems to do the trick.

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CLAY SUBSOILS

Work by soil scientists at Davis indicates that heavy clay subsoils in some soil series of California have formed partly as a result of clay formation in place rather than entirely by physical translocation of clay in the profiles.