was tested in a similar manner, and is included for the purpose of comparison.

TABLE 2. PLANTS MOST TOXIC TO GOLDFISH

Plant	I. D. No.	Survival time in minutes
"Bejuco chilio"	843	90
Cracca virginiana	723	83
Croton tiglium	830	22
Diospyros maritima	825	67
Eremocarpus setigerus	789	33
Eremocarpus setigerus	795	55
"Sinihuite"	844	57
Symplocos tinctoria	716	70
Derris sp	612	92

Preliminary toxicity tests have been made on various types of insects with those acetone extracts that killed goldfish in an average of one hundred and fifty minutes or less. The results indicate that a few of them possess considerable insecticidal value, and it is hoped to present the results of more complete tests of this nature in a paper of later date.[3]

NEW QUARTERS FOR WORK IN ENTOMOLOGY IN THE UNIVERSITY OF CALIFORNIA AT RIVERSIDE AND LOS ANGELES

By H. J. QUAYLE, *Riverside, Calif.*

In connection with the Southern Branch of the College of Agriculture of the University of California there has just been completed a new entomology building on the Riverside campus, and new quarters for the teaching of entomology on the campus of the University of California at Los Angeles. These facilities, in addition to the insectary at Riverside which was completed last year, constitute an unusually well equipped plant for entomological work.

The building at Riverside was built out of a legislative appropriation of $150,000.00. It is "L" shaped, two stories high and basement, with an attic greenhouse. The main part is 45 x 100 ft., and the projecting wing is 42 x 45 ft. It is a Class-A structure, of reinforced concrete and tiled roof.

In the basement is a spray application laboratory with a garage entrance for spray rigs and trucks, a fumigation tent room, machinery and refrigeration rooms, carpenters and mechanics shops, storage rooms,

[3]Thanks are due Mr. W. M. Davidson of the Food and Drug Administration, U. S. Department of Agriculture, for the insecticidal tests upon which these statements are based.

and a large room containing the air-conditioning equipment. This equipment consists of six independent cabinets, each with a working space of 2 x 4 x 4 ft., in which the temperature may be controlled to 1° within a range of from 30° to 120° F., and any humidity within the limits possible at the different temperatures. One cabinet is also equipped with thermo-time-control, which permits of different ranges of fluctuating temperatures automatically controlled within a 24-hour period. The light may be regulated in each cabinet from darkness to 1000-watts. The air in the room surrounding these cabinets is oil-filtered and may also be conditioned within certain limits with regard to temperature and moisture.

On the main floor, besides the usual offices and laboratories, photographic room and dark room, is a spray laboratory, a general insecticide laboratory, an insect physiology laboratory, and a fumigation laboratory. In the fumigation laboratory is a duplex, 100 cu. ft. vacuum fumigator installation, and two fumigating rooms. The two vacuum fumigators and one of the fumigating rooms are heavily insulated with cork, and in these any temperature may be obtained between 30° and 120° F., and the full range of humidity. The fumigators are equipped with special apparatus for charging with cyanide, carbon bisulfide, formaldehyde, carbon dioxide, ethylene oxide, and other fumigants.

The second floor consists of a series of offices and laboratories combined; a taxonomic laboratory with 600 cases, of the museum type, for pinned specimens, and other cabinets for preserved specimens and microscope slides; a graduate student and seminar room; a dark room; and a roof deck 40 x 45 ft.

The attic greenhouse is 8 x 50 ft., with potting space at either end. An electric elevator enables plants to be transported from this greenhouse to the fumigating and air-conditioning rooms, as well as for transport of supplies to all floors.

An innovation in this building is in the type of window. The lower section is fixed and without screen, each half of the double window consisting of a single piece of plate glass without mullion. This permits uninterrupted light for microscopic and other work at the tables along the windows. The walls and ceilings as well as the fixed furniture are of a light green finish, which is a more restful color, particularly in the strong sunlight of southern California, than is the usual cream or buff color.

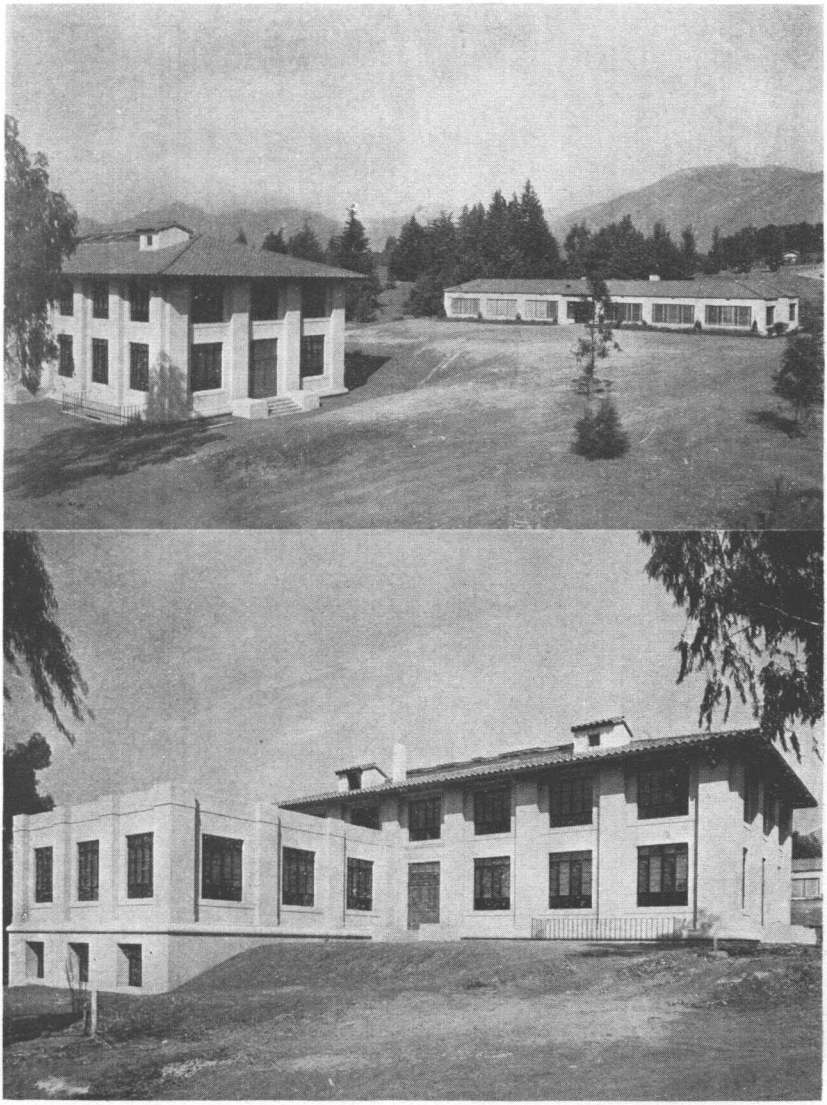
The new entomology building is in close proximity to the insectary which was completed last year. The insectary is unique in that it consists of twenty insect-proof rooms where foreign insects as well as

others may be studied without danger of their escaping and becoming established. This building is also constructed of reinforced concrete with tiled roof. The size over all is approximately 50 x 100 ft.

The floor plan is shaped like the letter "H", with four practically identical wings connected by a main corridor, below which is a basement that is used as a machinery room. There is also a basement under one of the wings. The rooms are fitted with double steel sash with air space between, set in concrete so that the windows are non-openable. The glass is polished heavy wire plate, to prevent breakage and to admit the maximum amount of sunlight. Entrance to each corridor is through a heavy insect-proof door of special design, and from the corridor the insect rooms are entered through similar doors. The corridor is painted black and the corridor light is automatically extinguished when any insect room door is opened, in order to avoid attraction of the insects toward the doors.

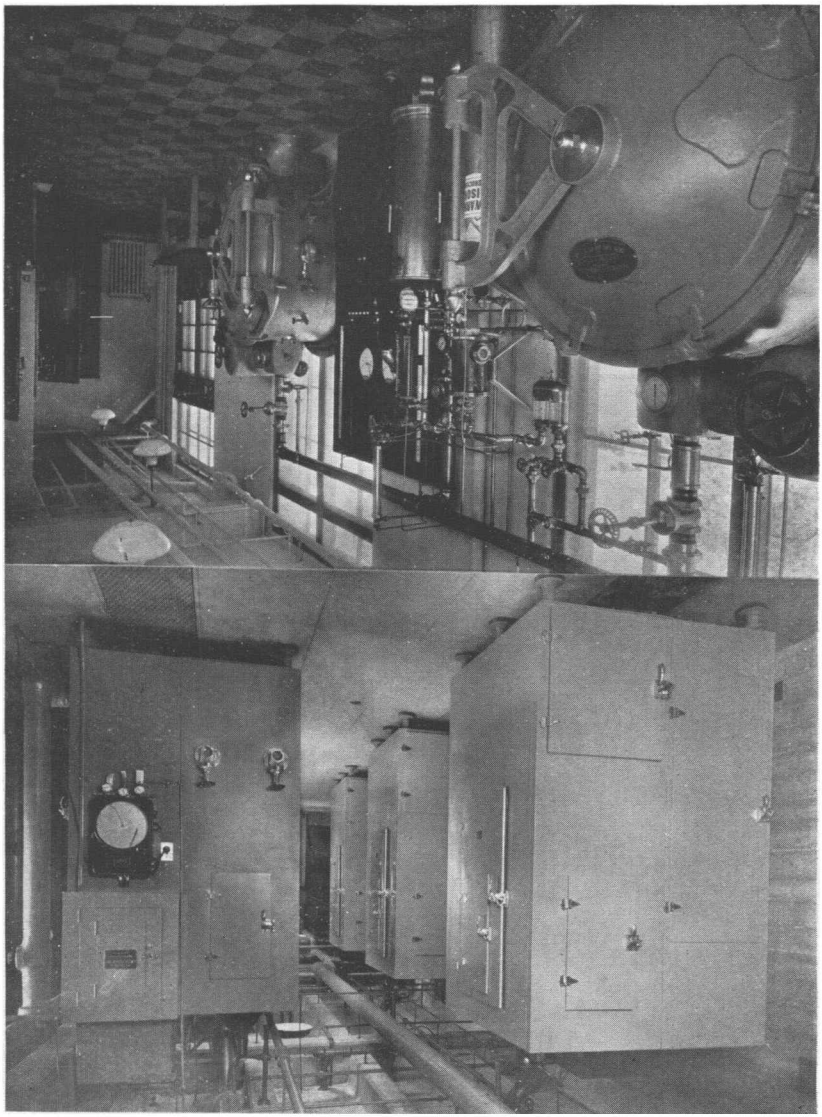
There is forced ventilation providing a change of air every five minutes. The air enters the rooms through ducts screened with silk bolting cloth and is exhausted through similar screens. The air supply first passes through an air washer which accomplishes the three-fold purpose of removing dust, supplying humidity, and reducing the temperature during hot weather. When outside temperatures require it, the air supply passes over gas furnaces automatically controlled so as to develop a room temperature of about 70° F. Each room is also equipped with an electric heating unit and thermostat which permits a range of from 70° to 95° F. The supply and exhaust ducts of each room are equipped with air-tight dampers so that any room may be closed off and fumigated through a pipe connection in the door. A large gas-fired incinerator is build in the main corridor where foreign plant cuttings, shipping boxes, etc., which have been used to import beneficial insects, may be burned after fumigation.

Quarters of the Division of Subtropical Horticulture in the University of California at Los Angeles have just been completed at a cost of $150,000. In these quarters three rooms have been set aside for the teaching of undergraduate entomology: one laboratory 22 x 45 ft., an entomological research laboratory 19 x 25 ft., and an office 10 x 19 ft. Instruction in entomology will be given during the second semester of the present year, when a course in elementary entomology will be offered. The following year an advanced course in citrus and other subtropical fruit insects will be offered, and thereafter both courses will be given during the second semester. The graduate work in subtropical fruit insects and in biological control will be given at Riverside as heretofore.



Above.—Portion of new entomology building at the University of California Citrus Experiment Station, Riverside, California, on the left; and the new insectary at the right.

Below.—West facade of the new entomology building at the University of California Citrus Experiment Station, Riverside, California.



Above.—View showing four of the six air-conditioning cabinets in the new entomology building at the University of California, Riverside, California. The refrigeration machine room (not shown) is in the immediate foreground, and the refrigerant is conducted to the cabinets in the trenches shown in the floor.
Below.—View showing vacuum fumigation installation on the left, and the doors of the two fumigating rooms on the right.

On account of the wide range of subjects in economic entomology requiring attention in California, and the widely separated groups of workers such as at Berkeley, Davis, and Riverside, a meeting of these groups was held during the past year and an organization and division of the work in the state was agreed upon, which as a matter of fact has been in effect since 1914. In administration W. B. Herms, head of the Division of Entomology and Parasitology at Berkeley and Davis, is in charge of the work in agricultural entomology in northern and central California, and is responsible for the work in medical and veterinary entomology throughout the state; H. J. Quayle, head of the Division of Entomology at Riverside and Los Angeles, has general charge of the work in agricultural entomology in southern California, and in so far as the work pertains to citrus over the whole of the state; and H. S. Smith, head of the Division of Beneficial Insect Investigations, has general charge of this work for the entire state.

It is not necessary here to go into detail with reference to further division of the entomological work in northern California. In southern California the research work on subtropical fruit insects is in charge of H. J. Quayle; that of beneficial insect investigations in charge of H. S. Smith; spraying investigations is in charge of R. H. Smith; walnut, deciduous fruit and certain subtropical fruit insects in charge of A. M. Boyce, who will also be in charge of the teaching work at the University of California at Los Angeles; and P. H. Timberlake is in chage of the collection and taxonomic work.

Scientific Notes

Propylene Dichloride as a Fumigating Material. Some years ago in the United States Department of Agriculture Bulletin 1313, experiments with various organic materials were detailed. Among the more efficient ones was propylene dichloride, which at that time was not available because of the high cost. Within the last few years this material has become available and the price very comparable with that of carbon disulphide. Laboratory and field tests with this material against various grain-infesting insects shows that mixtures of this material can be considered as efficient as carbon disulphide for fumigation against grain-infesting insects, without the fire hazard attending the use of the former material.

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The Gladiolus Thrips, *Taeniothrips Gladioli* M. and S., in California. This thrips, which has recently become a pest of gladioli in many eastern and middle western states (and Canada), has been collected in southern and central California. It was first collected in California on April 30, 1932, by Mr. S. N. LaFollette, county agricultural Inspector, and Dr. Weigel of the Federal Bureau of Entomology, on the property of W. A. Ritto, La Habra Heights (Los Angeles County).