Control of Peach Twig Borer Under Continuing Study
Stanley F. Bailey

In the past few years many new chemicals have entered the field of insecticides but the majority of them are not useful in the control of the peach twig borer. Laboratory experiments show that the larvae of the peach twig borer will be paralyzed by crowding across back and leaves sprayed with DDT, and therefore, catterpillars do not need to feed on poison-treated leaves to be killed.

Several species have used the wettable DDT spray powders—smallly and 20 per cent of these species is the rate of one pound of actual DDT per 100 gallons of water, as well as a five per cent dust, to control this insect on oozing peaches and report excellent results.

In experiments in the orchard among, DDT was compared with the basic lead arsenate spray, and found to be slightly superior in controlling the peach twig borer.

DDT Residue
Preliminary tests with summer peaches have shown that the amount of DDT residue on the fruit at picking time has been far below seven parts of DDT to one million parts of the fruit, which is the amount permissive for apples and peaches.

Small scale tests in which the fruit was lye peeled, showed that all the DDT residue is removed by that process. It is still unknown whether the DDT residue in the lye tank will accumulate sufficiently under average canopy conditions to contaminate the commercial pack without frequent changing.

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Extra Irrigation Is Extra Expense in Prune Production
A. H. Hendrickson and F. J. Vollmayer

There exists a general idea, that if maintaining moisture in an orchard results in the trees at all times is good, the addition of more water to keep the soil moisture relatively high is better.

Experiments with prune trees over a 13-year period do not support that idea.

Experimental irrigation plots of eight French prune trees were replanted for two times for the test treatments and four times for the third. All plots in each treatment received the same irrigation.

Test Treatments
Where the plots were irrigated, the soil was moistened to a depth of six feet, so the trees either did or did not have moisture to the depth occupied by most of the roots. Light irrigation, wetting the soil to a shallow depth were not used.

Treatment A was kept at a relatively high moisture content. Treatments B and C were irrigated in such a way as to approximate the permanent wilting percentage before replanting the supply. Treatment C was irrigated during the first year at 50 per cent of the season only, the average date of the final irrigation being July 20.

The irrigation was under the direction of the same man throughout the 13 years. The water application was very close to 7.5 acre inches.

The soil moisture records for these treatments indicate that in general, the A treatment had readily available water at all times, the B treatment had moisture available only at times, and the C treatment had moisture available at a depth of six feet.

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DDT Dust With Sulfur Is Treatment Recommended for Summer Control of Greenhouse Thrips On Avocados
Walter Eheling

During the past few years the greenhouse thrips, Heliothrips haemorrhoidalis, has become the most serious of the avocado pests, especially in the areas of greatest concentration of the avocado industry, in San Diego County.

The greenhouse thrips is 1/4 of an inch in length, dark brown to black, and very sluggish in its movement. The adults seldom, if ever fly.

As a result of successful preliminary trials with DDT sprays and dusts, made by the University of California College of Agriculture in cooperation with the San Diego County Agricultural Commissioner's Office, many growers used a DDT sulfur dust to control greenhouse thrips during the past year.

The dust consisted of 5 per cent DDT and from 50 to 60 per cent sulfur; that the second application is not necessary. The present year will be the "on year," however, in the alternate bearing cycle, and no chances should be taken with greenhouse thrips.

With good control this year, it is possible that next year—the "off year"—no treatment may be necessary.

DDT may also be applied as a spray, using one-half pound of actual DDT to 100 gallons of spray, to which two pounds of wettable sulfur may be added for brown mite control.

Effect of DDT on Other Pests
Not enough experience has yet been obtained to predict the long term effects of the DDT on other pests of avocados, which might increase in numbers because of the effects of the treatments on parasites and predators.

The long-tailed mealy bug populations, however, were decreased by DDT applications made last year.

DDT Residue
Analyses of 23 samples of fruit, taken from commercially treated orchards and experimentally treated plots, showed in all cases that the residue of DDT was considerably less than the provisional tolerance of 7 parts per million allowed by the Federal Food and Drug Administration for certain crops.

Walter Eheling is Lecturer in Entomology and Associate Entomologist in the Experiment Stations, Los Angeles.

New Method For Disposal of Liquid Waste By Wineries
G. E. Marsh

Pilot scale field tests during the past vintage season proved it is possible to eliminate the odor nuisance and the mosquito menace from land disposal of winery liquid wastes, or effluents.

Methods of stillage disposal commonly in use can no longer be considered satisfactory in those areas where recent population growth has put wineries in close proximity to residential developments. The odors arising from the disposal ponds or lagoons, as a result of the decomposition of the residue, are often the cause of significant complaints.

The wine industry, through its agency, the Wine Institute, The Coast Laboratories, Inc., and the University of California cooperated during the past vintage season in carrying out successful field tests in developing a new method of land disposal of winery liquid wastes.

Intermittent Irrigation System of Disposal
The chief difference between the present intermittent and similar systems, is the manner in which the liquid is applied to the land. The size, shape, and area of the disposal basins are not as important in the success of the system as the name implies, the liquid is added intermittently to the land set aside for disposal purposes rather than continuously. This is accomplished by dividing the area of land into shallow basins—similar to irrigation basins—of a size capable of holding the daily irrigation requirements of grapes.

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Precision Planter For Row Crop Seeds Proved Successful
Roy Bailer

Precision planting of small seed row crops is now possible by the use of a motorized planter which drops the seed at a controlled rate in the furrow.

The development of the precision planter followed the introduction of processed seed made in 1942. This processed seed contained a higher percentage of single-germ units in the package, was planted at six to 12 seed units per foot—three to six pounds per acre.

Uniform Seed Is Required
Early in the development program, uniform close grading of processed seed was found necessary to avoid the possibility of having more than one seed at a time in the seed wells or cells of the seed plate.

Seed processed by segmentation—often known as "carded"—had been used for some years. The process created a demand for growers for improved planting equipment.

Planters then in use failed to give the desired uniform close grading when processed seed, containing a higher percentage of single-germ units, was planted at six to 12 seed units per foot—three to six pounds per acre.

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