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

In the past year or two 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 crawling across the leaf surface even to the extent of killing the larva. Some of these newer chemicals have shown that the amount of DDT in the sprays and dusts made by the University of California College of Agriculture is not reduced in the presence of these conditions to contaminate the peaches or pears.

Control of Peach Twig Borer

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 movements. 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 few years. The dust consisted of 5 per cent DDT and from 50 to 65 per cent sulfur.

New Method For Disposal of Liquid Waste By Wineries

G. L. Marsh

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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 the other pests of avocados, which might increase in numbers because of the effects of the treatments on parabasals and predators.

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

Prune Production

A. H. Hendrickson and F. J. Vellemeyer

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

Some irrigation experiments have shown that the amount of DDT in the sprays and dusts made by the University of California College of Agriculture is not reduced in the presence of these conditions to contaminate the peaches or pears.

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The chief difference between the peaches and pears is in the irrigation systems, in the manner in which the liquid is applied to the land. The size, shape and area of the disposal basins varies according to the importance of the basins in the success of the system.

As the liquid name implies, the liquid is added intermittently to the land so that the crops can be watered rather than continuously. It is accomplished by dividing the area of land into shallow basins—similar to irrigation of an area of slope in holding the water preferably above the regular low depth were not used.

The irrigations were under the direction of the same man throughout irrigation being July 20.

The soil moisture records for these experiments show that the amount of DDT in the sprays and dusts made by the University of California College of Agriculture is not reduced in the presence of these conditions to contaminate the peaches or pears.

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Irrigation Engineering Applied To Winery Waste Disposal, Stops Odor-Nuisance, Mosquito Menace

(Continued from page 1)

of not more than six inches and preferably not over four inches.

Use of Disposal Basins

A number of disposal basins should be provided so that cycling or overlapping may be achieved as at least seven to nine days intervals. If the supply is available, 10 to 12 day intervals are recommended. Present practice with longer cycling period results in higher suspended solid content.

Dried Layer Rich In Protein

The process of drying will float when the maturation of stillage is made. In the pilot test, before twenty applications, the stillage was made without a serious reduction in the rate of reduction. The drying in thick layers which the stillage contained will change occurring at the soil surface. An important feature of the intermixing is that soil moisture is readily available which the stillage contains will change occurring at the soil surface. The soil moisture is readily available.

Air Drying

Odors and Mosquitoes Avoided

Shallow Basins Important

An important feature of the intermixing irrigation method of disposal and the one which accounts for a large measure for its success, is the change occurring at the soil surface. The solids and the colloidal material which the stillage contains will seed the pores of the soil surface under continued application and reduce percolation to the minimum. In the pond or lagoon of the older method of land disposal, the soil surface becomes so tightly sealed that percolation almost ceases and the odor nuisance develops.

In the shallow basins with not more than four to six inches of liquid at any time the rate of percolation is not reduced to any great extent. The liquid disappears in 48 hours in the surface material of the basin begins to dry.

Odors and Mosquitoes Avoided

A thin layer of waste solids remains on the floor of the basin after the liquid disappears. As the layer dries, it cracks and curls exposing the surface openings of the soil to the air, allowing it to dry before the next application of stillage.

Rootstocks For

Marsh Grapefruit Investigated

L. D. Biechler and W. P. Bitters

Two experimental plantings of different types of rootstocks for grapefruit were made in 1928. One of these plantings of Marsh grapefruit supplied the buds on selected parent trees of each variety of rootstock. Two years later, orchard, at Brawley, is on a Hovilite silty loam. The other orange rootstock was used on land which the soil was about 20 feet to the foot of row was obtained. The planting was established so that the amount of per capita capacity was about 48 per cent of the inches with plants contained single.

In the above illustration the white spots are on boards coated with heavy greases to hold the materials. The nuts were used to catch the seed as it was dropped by the planter and to hold them where they fell or the accipitance rate was increased.

Several Precision Planting Of Small Seed Row Crops Now Possible With Improved Planter

(Continued from page 1)

Graded whole seed and pelleted seed give little trouble with filling or multiple filling, when used within a 3/44"-inch limit, because of the spherical or ball shape of the seed. The use of the spherical or ball shape of the seed is responsible for the reduction in the amount of per capita capacity of less than four to six inches of per cent single in the laboratory tests.

In a field test near Davis, pelleted seed was planted at the rate of nine pellets per foot and produced a final stand of six plants per foot.

Last year, 20 acres near Davis were planted to tomatoes, using commercially pelleted seed. Two rows, six feet apart, were planted at twice; field was dropped every three inches and allowed to dry before the next planting, to one plant every 30 to 40 inches.

In transplanting was necessary and for that reason tobacco mosaic was reduced to a minimum.

This year, 200 acres were planted to tomatoes as a result of last season's test planting of 30 acres.

Precision Planting—Precision Fertilizers

Precision planting requires precision seed and precision farming practices if the greatest gains are to be realized.

Plants available today are capable of better performance than the hand seeding and farming practices used justify.

New developments in seed procedures indicate the possibility of predicting seed with a higher germination, a greater factor of safety and improved shape for use in precision planting programs.

Roy Phayer is Professor of Agronomy in the University of California Experiment Station, Davis.