

## AGRICULTURE

# To Spray or Not to Spray?

Controversy over pesticides has brought confusion to the gardener and farmer, but chemicals when properly applied give improved agriculture and better health.

➤ AMERICA faces a dilemma this spring.

As millions of small, winged or grubby, soft or horny insects creep, crawl or fly from their winter retreats, the home gardener, the farmer, the housewife wonders:

Shall I spray? Or: If I spray, will I also kill the bright birds, the helpful insects and plants . . . and contribute to the growing residue of deadly chemicals?

Controversy over pesticides has waged hot enough this season to melt the winter freeze, and has succeeded in confusing the

minds of the gardener, farmer and housewife.

There are no easy answers, just as there are no easy accusations or praises of insecticides. Like marriage, chemical use is a mixture of good and bad qualities—for better or worse, we should try to put up with it as best we can.

Some of the opinions raging over pesticides fall into the following contradictory camps:

## Against Spraying

Danger that all life, good and bad, can be destroyed by poison from non-selective chemicals.

Disastrous effect on wildlife—thousands of birds, fish, mammals have been wiped out by mismanaged spraying.

Indestructible chain of chemicals seeping into the earth and waters has effects on man yet undetermined.

Food and Drug Administration has only limited control over chemical dangers.

## For Spraying

Essential to stop diseases carried by insects: malaria-bearing mosquitoes, typhus-bearing fleas, dysentery-bearing flies.

Halts the overpopulation of creatures that would otherwise crowd man: swarms of grasshoppers, locusts.

Necessary for better food products: fewer wormy apples, blighted peaches, many foods would die out without insecticides.

Food and Drug Administration is increasing its vigilance on testing by companies.

The sane view to take with these opposing arguments is this: Insecticides are needed, but are deadly when used improperly.

Just as man has learned to live with other blessings mixed with destruction such as medicines, automobiles and nuclear power, he should be able to live with pesticides.

Properly applied chemicals have improved agriculture and given civilization better health, acknowledges John Davis, chairman of the National Wildlife Week Committee in Washington, D. C. But we have to use common sense when we apply them. There should be strict enforcement of present registration of the chemicals, he said, and the labels should be readable and clear.

Many people get careless about the pesticides they use, states Dr. W. H. Larrimer, executive secretary of the Pest Control and Wildlife Relationships Committee of the National Academy of Sciences. "They should keep informed of the chemicals they use, check on the label, and follow directions carefully."

Before large-scale programs of pesticide spraying are launched, Dr. Larrimer said, judicious care should certainly be taken to consult the many people involved—the farmers, wildlife conservationists, state and Federal agents.

As for deciding to spray or not to spray, Dr. Larrimer has this advice: "Make up your own mind. If you want beautiful roses, spray. If you want black spots on them, don't spray. But always remember—Handle with Care!"

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Esso Research and Engineering

**DIAL FOR WEATHER**—Two scientists measure the growth rates of sweet corn plants in the "climate chamber" of the Esso Research and Engineering Company where climatic conditions for growing crops can be duplicated for any part of the world. Four such chambers in which the desired weather can be dialed are being used in fertilizer research.

## ENTOMOLOGY

## Success of Insects Due To Seniority on Earth

➤ PART of the insects' success story is because they have been around on this planet for about 450 million years, long before man.

This means that nature has had a good opportunity to build a creature with effective natural defenses against his aggressors, including his worst competitor—man. With approximately one million different species, insects comprise about 80% of the world's animal population, Dr. E. H. Smith, department of entomology at the New York State Agricultural Experiment Station at Geneva, N. Y., said.

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## ENTOMOLOGY

## Drinking Tank for Bees Keeps Them Healthy

➤ A SANITARY watering tank for bees has been developed at Madison by C. L. Farrar, a University of Wisconsin entomologist. The unit consists of a plastic sponge floating in a shallow tank of water and tightly fitted to keep the bees out of the water beneath the sponge. The bees light on the sponge and get the water they need from its pores.

The sponge can be sterilized in hot water periodically, to keep it free of disease germs. He said a temperature of 110 degrees Fahrenheit for ten minutes will kill the disease spores of nosema, a serious bee disease.

Another advantage of the tank system is that it keeps the bees at home so that they do not bother neighbors watering their lawns, thereby drawing possible DDT retaliation.

In Mr. Farrar's model, water is piped into the tank and the level is controlled by a float valve. A roof of light plastic over the tank helps prevent contamination.

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## Less Decay Occurs On Hand-Picked Fruit

➤ MORE FRUIT DECAY was found on peaches and apricots which had been mechanically harvested than on those which had been picked by hand.

Because mechanical harvesting can bruise the fruit, decay-causing pathogens such as *Rhizopus* and *Sclerotinia* are a more serious problem than on the same type fruit picked by gentler methods, report Joseph M. Ogawa, James L. Sandeno and Judith H. Mathre of the department of plant pathology, University of California, Davis.

Fruit dried soon after harvesting, such as prunes, was less prone to decay.

In Plant Disease Reporter, 47:129, 1963, they report that decay was controlled by spraying or dipping the fruit with fungicides.

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