



# Sevin

## Insecticide:

### New Carbamate for Turf, Trees, and Ornamentals

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**C**ONTRACT spraying of home lawns and gardens is growing by leaps and bounds.

The day is past when the average homeowner can keep most of his pests under control with two or three stock pesticides. Greater insect depredations, a buildup of insect resistance to some spray materials, the wide variety of sprays and dusts, and the recent concern about spray materials have all contributed to take pest control out of the hands of the homeowner and turn it over to the specialist — the contract applicator.

One of many insecticides which operators are now using for a variety of jobs is Sevin, a product of Union Carbide. Being a carbamate, it is unrelated to many older compounds. Chemically known as carbaryl (1-naphthyl N-methylcarbamate), Sevin has a broad spectrum of usefulness and a low degree of toxicity. Spraymen who must handle it are relatively safe from any injurious effects, researchers have reported.

Normal pesticidal precautions should be observed, however. When used according to directions, though, Sevin is not likely to bother customers' children or pets if they come into contact with it on foliage. If it drifts, it will not contaminate crops or harm domestic animals, small game, or fish, when used at the prescribed rates. It is said to be 200 times

safer to goldfish, than is DDT.

#### Formulations Available

Sevin insecticide is available as a 50% wettable powder, an 85% microfine wettable powder, several liquid formulations including a suspension of 4 pounds per gallon of active material (called Sevin 4 Flowable), 5 and 10% granular formulations, and dusts, each produced by various formulators.

There are some formulating details of which CAs should be informed. To maintain quality of spray preparations, formulations should be mixed accurately and with care. To a partly filled tank with agitator operating, Sevin can be added along with any other emulsifiable formulations desired. While spraying, the agitator should continue operating so as not to let the preparation settle. After spraying, flushing with clean water will eliminate residues.

Separable suspensions of Sevin insecticide should not sit in the tank overnight.

Sevin is compatible with commonly used insecticides such as DDT and other chlorinated hydrocarbons. Compatible organic phosphate compounds include Guthion, malathion, and parathion. Botanicals are also compatible with the product. Fungicides which may be applied along with Sevin include glyodin, organomercury compounds, fixed cop-

pers, dithiocarbamates, sulfur, captan, Cyprex, and Phaltan.

Sevin should not be mixed with any alkaline materials. Bordeaux, lime, lime sulfur, and casein-lime will lessen effectiveness of this new compound.

All common miticides are compatible with the chemical, which is an advantage because Sevin alone does not control certain kinds of common mites.

Sevin controls many insects that have built up resistance to chlorinated hydrocarbon and phosphate insecticides. According to Dr. Edward J. Duda, director of the Bartlett Tree Research Laboratories, Sevin has a good residual effect, and has given up to two and three weeks control of insects such as lace bugs on oaks and sycamores.

Bartlett experts have also had good results using Sevin on birch, oak, and boxwood leaf miners, Japanese beetles (which seem to be moving from gardens into rougher areas), chinch bugs, leaf tiers, tent caterpillars, cankerworms, and periodical cicadas (17-year locusts).

Cicadas were especially troublesome in sections along the East Coast in 1962, and are scheduled to appear over a broad band in the east-central United States in 1963.

#### Cicada Control

Cicadas are controlled by preparing a 2% suspension of wettable powder; approximately a gallon of this is applied to each 50-foot tree. Application should be delayed about 10 days after emergence from the ground; this is the time when female cicadas begin laying eggs in twigs of trees.

Other pests on which Sevin has been successful include bagworms, elm leaf beetles, rose aphids and slugs, lecanium scales, and pine leaf aphids.

Sevin is not only useful on lawns (for earwigs, armyworms, fleas, leafhoppers, millipedes, sod webworms, and mosquitoes, as well as chinch bugs), but against insects on home-grown tree fruits, most of the small fruits and nuts, vegetables, rose bushes, garden flowers, and shrubs at 1.0 to 2.0 lb. of 50% wettable powder per 100 gallons of water, or 1 qt. 4 Flowable per 100 gallons of water.

For best results against chinch bugs, lawns in infested areas



Experiments with Sevin insecticide on a variety of ornamentals and shade trees have demonstrated it to be effective for controlling most common tree pests.

should be sprayed about the time the young insects are hatching, when temperatures rise into the 70s. One and one-quarter pounds of 85W in 150 to 200 gallons of water will treat 5000 sq. ft. (or 2 lbs. of 50W in the same amount of carrier). This is the same as 1 lb. actual Sevin per 5000 sq. ft.

According to Dr. Louis Pyrenson of the Long Island Agricultural and Technical Institute in Farmingdale, N.Y., best results are obtained when the lawn is mowed and given a good wetting with a sprinkler before applying the insecticide. This brings the bugs to the lawn surface. After application, the turf should be wet down with clear water.

One application of Sevin is capable of controlling an entire generation of chinch bugs. Applications may have to be repeated after 2 or 3 weeks if young of a new generation begin to appear.

CAs who spray flower gardens for insect pests can use Sevin on a wide variety of nonwoody plants including asters, begonias, mums,

dahlias, gladiolas, iris, marigolds, orchids, roses, and zinnias. The shrubs include andromedas, azaleas, camelias, euonymus, hydrangeas, laurel, lilacs, rhododendrons, rose of Sharon, and yews, at 1 lb. active ingredient per 100 gallons of water.

On ornamental trees the list includes arbor vitae, ashes, birches, bamboos, cypress, dogwoods, elms, firs, hemlocks, hickories, junipers, magnolias, pines, sassafras, red-buds, and others. But avoid using Sevin on Boston or Japanese ivy, since it may injure these plants, experimenters discovered.

Sevin poses slight hazard to desirable birds and other animal species, according to James K. Keith, a research biologist with the U. S. Fish and Wildlife Service of the Department of Interior. "Our work to date with Sevin insecticide indicates that it has a low potential hazard to wildlife and that it is one of the more desirable pesticides for use where wildlife values are of consideration," Keith has stated.