## Activated Sabadilla, A New Control of Chinch Bugs in Turf

By Robert S. Filmer and Charles L. Smith New Jersey Agricultural Experiment Station, Rutgers University

★ Curtailment of civilian uses of rotenone during the war period has stimulated research for readily available and satisfactory substitutes for this popular insecticide. Workers at the University of Wisconsin have shown that the seed of Sabadilla, plants belonging to the genus Schoenocaulon of the family Liliaceae and found throughout the Americas, contain toxic principles which are effective against many insects. Recently certain chemical treatments have been found which greatly increase the toxicity of this material. Activated Sabadilla dusts now are available commercially.

In tests conducted at Rutgers University on the first brood of the hairy chinch bug, Blissus hirtus, during the 1945 season, it was demonstrated that 10% Sabadilla dust was superior to standard treatment of 1% rotenone in controlling this insect. Applied with power dusting equipment to bent grass turf greens, 100 pounds application per acre of 10% Sabadilla dust gave better than 95% reduction in population of chinch bugs. When hand

dusting equipment was used to apply the dust a somewhat higher rate of application was necessary.

While it is preferable to apply Sabadilla on warm sunny days when the grass is dry, our tests indicate that these requirements are not as important for satisfactory control with Sabadilla as they are for such materials as rotenone and nicotine. Little or no brushing in is necessary with applications of Sabadilla as this material activates the chinch bugs and they quickly come up to the grass surface and become coated with dust.

The speed of toxic action of this material is very rapid, death of the chinch bugs usually occurring in a few hours. In tests conducted thus far Sabadilla has given practically 100% control of the nymphal stages and only slightly lower kill of adults.

Applications of dilute Sabadilla dust can be made to turf without danger or discomfort to the operator.

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