OBEADN STATE AGRICULTURAL COLLEGE

19 APR 1935

AGRICULTURAL EXPERIMENT STATION OREGON STATE AGRICULTURAL COLLEGE HERARY W. A. Schoenfeld, Director

May, 1932.

Circular of Information No. 69

THE SPITTLE BUG

There has been very little opportunity to study the life habits of this insect and only a limited opportunity for control tests. Two years ago the spittle bug appeared in damaging numbers in strawberries. At this time some initial experiments were begun which we continued last year. These preliminary tests have given some very encouraging information relative to the control of the bug.

The bugs winter apparently as eggs on the dead leaves at the base of the plants and early in the spring they begin to hatch. The first application of our control tests was made on April 15 two years ago and on April 21 last year, when the spittle bugs were very small and the strawberry plants in the bud. Liquid sprays of nicotine sulfate and dusts consisting of nicotine and lime and hydrated lime, as well as many other different kinds of dusting and liquid materials were tried out. The liquid sprays of nicotine sulfate and similar liquid contact insecticides were not effective in our tests. Hydrated lime dusted on the plants gave about 90% kill. A 2% nicotine and 4% nicotine dust gave 95% and 100% kill respectively. Our tests this last year were not as satisfactory as they were the year before, but the kill was about in the same relative proportion.

The materials were applied with a hand bellows duster costing about \$20. Several acres, it is believed, can be covered in a day by one man with one of these dusters. The spout of the duster is placed in the crown of the plant and one or two movements of the bellows is made so that the dust will be blown throughout the crown of the plant. Thorough coverage of the "spit" bug with the dust is essential.

The: applications of materials later than the latter part of April were not as effective in combating the insect nor in preventing the damage caused by the insect as were those applications made on April 15 and April 21. A 2% nicotine dust apparently is more effective than lime in later applications.

The bug apparently causes more damage to the Marshalls than it does to the Ettersburgs. Dusting applications gave us better results with the Marshalls than the Ettersburgs when the yield of the dust plots as compared with the check was taken into consideration.

> Don C. Mote, Entomologist.