

1926

THE QUARTERLY BULLETIN

— OF THE —

STATE PLANT BOARD

OF MISSISSIPPI

VOL. 5

JANUARY, 1926

No. 4

CONTENTS

	Page
The Pink Bollworm Situation in Texas.....	1
New Bulletin on Tomato Fruitworm.....	3
Controlling Cutworms on Truck Crops.....	4
Nursery Inspection Report.....	6
Quarantine Inspection Report.....	7
Citrus Canker Scouting Report.....	8

PUBLISHED BY
STATE PLANT BOARD OF MISSISSIPPI
A. & M. COLLEGE, MISSISSIPPI

Entered as second-class matter July 9, 1921, at the post office at
A. & M. College, Mississippi, under the Act of June 6, 1900.

For the sprayed plats, powdered lead arsenate was used at the rate of $1\frac{1}{2}$ pounds to 50 gallons of water, plus 2 pounds of hydrated lime, or $1\frac{1}{2}$ pound Kay-o, to act as a spreader and sticker. From two to four applications were made at intervals of 12 to 14 days, starting soon after the fruit began to set. If dusting is preferred, calcium arsenate is recommended at the rate of 10 pounds per acre.

Truck growers who are especially interested in this subject should write the Agricultural Experiment Station, Knoxville, Tennessee, for Bulletin 133, "The Corn Earworm on Tomato."

Good results in spraying and dusting to control the corn earworm on tomatoes were secured by R. C. Price, former inspector of the State Plant Board at the Poplarville Branch Experiment Station, in 1923. Tomatoes dusted with undiluted calcium arsenate on June 5, 14, and 30, had only 2.43% of wormy fruits; those sprayed with lead arsenate June 2, 14, and 30 had only 1.5% wormy fruits; while the untreated check plat was 11.5% wormy. This experiment was described in the April, 1924, issue of the Quarterly Bulletin of the State Plant Board.

CONTROLLING CUTWORMS ON TRUCK CROPS

Cutworms destroyed about 15% of the tomato plant in the Crystal Springs trucking section in the spring of 1925, and in many fields where no control measures were used losses of 75% to 90% occurred. In one case, a grower used over 14,000 plants in attempting to secure a stand of plants on one acre that required about 5,000 plants to give a perfect stand. That these losses could have been prevented almost entirely is shown in Mississippi Experiment Station Circular 62, "Poisoned Bait for the Control of Cutworms," by H. H. Wedgeworth, Inspector of the State Plant Board, located at the Raymond Branch Experiment Station.

The poisoned bait used in the experiments described in this circular was made according to the following formula:

Wheat Shorts -----5 lbs. Molasses ----- $\frac{1}{2}$ pint
Paris Green -----1 $\frac{1}{2}$ ozs. Water----- 1 gal.

The shorts and Paris Green were thoroughly mixed while dry and then wet with the mixture of molasses and water until damp enough to be of such consistency that it would fall in small lumps, about the size of oat grains, when scattered.

The value of the poisoned bait was tested on land free of vegetation, in cages where cutworms were confined with growing tomato plants, and on rows in the field. The almost perfect control secured by using the poisoned bait is shown in the following summary quoted from the circular:

"(1) In an experiment with cages free of vegetation, 88% of the cutworms were killed where poisoned bait was applied broadcast and 9% died in the checks (probably from injuries in handling.)

"(2) In a cage experiment where young tomato plants were growing, only 7% of the plants were cut in the poisoned cages compared with 96.88% cut in the check cages.

"(3) In a simple field test, poisoned bait was applied in small quantities near each plant and one row was left as a check. Less than 1-10 of one percent of the plants were cut on the treated rows compared with 23.65% in the check."

With such splendid results from using the poisoned bait, no truck grower should fail to protect his crop this spring. As soon as the land is prepared for the tomato plants or other plants, the poisoned bait should be scattered over the field, applying it late in the afternoon, and if possible several days before the plants are set. If the cutworms are very numerous the application may be repeated when the plants are set, or just before setting. Using the formula given above, 20 pounds of wheat shorts will make enough bait to poison about three acres. Poisoned bait around the edges of the fields will also destroy large numbers of cutworms crawling from surrounding grass or ditch banks. A copy of this circular may be secured by writing the Mississippi Experiment Station, A. & M. College, Miss.