6-25-1890

Cotton leaf worm :(Aletia argillacea)

S. M. Tracy

MISSISSIPPI

Agricultural Experiment Station

BULLETIN NO. 12.

COTTON LEAF WORM.

(Aletia argillacea.)

S. M. TRACY, Director.

AGRICULTURAL COLLEGE, MISS.

JUNE 25TH, 1890.

THE COTTON LEAF WORM.

(Aletia argillacea.)

During the seasons of 1888 and 1889 the Station made a number of tests in order to determine the cheapest and most effective method for destroying the cotton leaf worm, and in all cases it was found that if Paris Green was dusted over the leaves, even very lightly, the crop was fully protected.

For a small area we have found no better method than that described in Bulletin No. 2 of this Station, which is as follows:

Make two sacks of heavy cloth, each about ten inches long and four in diameter, open the whole length of one side and firmly sewed at the ends. We have found "8 oz. Osnaburg" the best cloth for the purpose. Take a strip of oak or other strong wood about one and a half by two inches, and five feet long, and bore a one inch hole five inches from each end. Tack one of the sacks to each end of the pole. fastening one of the edges of the opening to each of the narrow sides of the pole, so that the sacks will be in a position as shown in the sketch.

POLE.

SACK.		SACK.

The sacks can be filled by pouring the poison through a funnel inserted in the holes through the pole, and distributed by riding on horseback through the cotton rows, dusting two rows at a time. A little practice will enable one to do this work very evenly, and care must be taken not to allow the sacks to touch the leaves when wet or the poison will not pass through. When the sacks are freshly filled a very slight jarring will shake out a sufficient amount of the poison, but when nearly empty the pole should be frequently and sharply struck with a short stick, or spaces in the rows will be missed. When used in this way we have found it best to use the poison without any admixture of

flour, and if flour is to be added lighter cloth should be used in making the sacks.

With a pole and sacks as described one man and mule can poison from fifteen to twenty acres per day.

Where more rapid work is desired, we have found no other machine equal to the "Roach Poison Distributor" made by J. P. Roach & Co., of Vicksburg, Miss. This machine is made like a two-wheeled sulky, with a fan attachment geared to the wheels and connected with a reservoir containing the poison. With this machine seven rows can be thoroughly dusted at once, and by changing, two teams and drivers can dust seventy-five acres per day. The machine costs about fifty dollars, the price of one bale of cotton, and is the most satisfactory machine for the work we have found.

Whether the pole and sacks, or the machine, should be used will depend on the number of acres to be dusted. After the worm makes its appearance it spreads very rapidly, and it is important that the whole plantation be gone over at once. If this can be done within two days with poles and sacks, that will be the cheaper plan, but if the worms are likely to spread faster than the field can be treated in this way then it will be better to buy a machine.

With either plan it is best to do the work in the evening or early in the morning when the leaves are wet with dew, as the poison adheres much better at that time, and often it will be found best to work all night when there is sufficient light.

It makes but little difference how much of the poison is used, *provided it is well distributed so as to cover every leaf.* If dusted over the leaves evenly, we have found half a pound to the acre to be sufficient, but as few workmen are as careful as is necessary in using so small an amount, we have found it best to use about two pounds per acre with the pole and sack plan, and one pound with the machine. In using the machine it is best to use three pounds of flour to one of the poison, as the flour assists materially in making the poison adhere to the leaves. When the pole and sacks are used the workman should be careful to keep the poison from blowing over himself more than can be avoided, and when the work is done he should shake his clothing thoroughly and take a bath. A few buckets of water

should also be poured over the mule. With these precautions we have never known either sickness or injury to follow the use of the poison.

Whatever plan may be adopted for destroying the worms it should be determined upon and prepared for in advance. A liberal supply of the poison should be purchased, and the apparatus for distributing it all ready for work, as "time is money" in dealing with cotton worms, and a delay of a day in applying the poison may make a difference of hundreds of dollars in the crop. The fields should be closely watched and work commenced on the very day when the worms make their first appearance. A single application of the poison, if not followed too soon by rain, is usually all that is necessary to fully protect the crop, and the expense of this need not be more than fifty cents per acre.

In dealing with the worms, more than in almost any other farm work, promptness and care are essential to success, and with these there need be but little fear of loss from what has been the most troublesome enemy of the cotton crop.