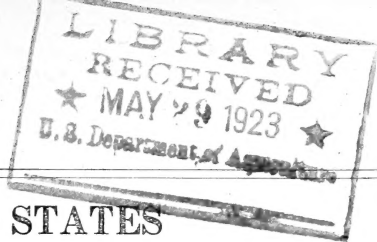


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UNITED STATES  
DEPARTMENT OF AGRICULTURE

DEPARTMENT CIRCULAR 274

Washington, D. C.

May, 1923

DUSTING FOR THE COTTON BOLL WEEVIL.

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DO IT RIGHT OR NOT AT ALL.

**M**ANY valuable lessons have been gained from the recent expansion of commercial weevil poisoning. It has again been shown that the boll weevil can be poisoned with profit if conditions are favorable and if proper methods are used, but it has been emphasized anew that unfavorable conditions and improper methods can lead only to failure. A survey of the poisoning by farmers in previous years shows that an unfortunately large proportion were not properly informed as to the conditions under which they should poison and the methods they should pursue. As a result there were many unnecessary failures. If better results are to be secured in the future, the operation must be more thoroughly understood. The present circular is prepared to give in a brief and concise form the information needed by a farmer in deciding, first, whether it will pay him to poison and, second, the methods he should follow.

Weevil poisoning is fully as important an operation as cultivation and deserves as much serious thought and attention. Unless you are willing to give this, you should not attempt to dust. Study these instructions carefully and follow them as closely as your conditions will permit.

WHERE WILL IT PAY YOU TO DUST?

It will pay to dust—

If the weevils are really injuring your crop seriously, and

If your land is sufficiently fertile to yield at least one-third bale per acre with weevil injury eliminated, and

If your farming organization is such that you feel assured that the poison applications will be made at the right time and in the right manner, and

If you are willing to spend the full amount necessary to provide an adequate supply of dusting machinery and poison.

The general gains from weevil dusting under average, fairly favorable conditions seem to be from 200 to 400 pounds of seed cotton per acre, but owing to variations in degree of weevil injury it is not safe to expect much more than the lower figure.

Consequently, you should not dust if the cost of the calcium arsenate, the cost of the labor to apply it, and the depreciation on the dusting machines will total more per acre than the current value of 100 pounds of seed cotton.

Hand guns should be figured as depreciating 50 per cent in a season and the larger machines about 25 per cent.

#### WHAT DUSTING MACHINE SHOULD YOU USE?

Make your acreage allotment according to the following schedule, and buy a surplus rather than shortage of machines, as this will save you money.

##### HAND GUNS.

Do not allot over 8 acres to one hand gun.

Do not attempt over 25 acres in one organization with hand guns.

Do not supply individual tenants with hand guns and expect each to care for his crop successfully independent of the others.

Use hand guns only when no other machine is suitable.

##### SADDLE GUN.

The saddle gun is somewhat similar to the hand gun. It is operated from mule back by hand cranking. There are two nozzles, one extending down on each side of the mule, thus treating two rows at a trip.

One of these machines should dust about 15 acres in a night of operation and should be allotted not more than 40 to 50 acres for the season.

##### ONE-MULE MACHINE.

This machine is drawn by one animal and operated between two rows of cotton. Several models are on the market. It sells at a medium price and is suitable for small farms.

This machine will cover from 15 to 20 acres in a night of operation. It should not be allotted more than 60 acres for the season.

This machine has only two nozzles but will usually cover three rows at a trip.

## CART MACHINE.

This term is used to describe the two-wheel, two-mule machine which straddles a row of cotton. It is the type most suitable for large farms.

This machine will cover from 25 to 30 acres in a night of operation.

One of these machines should be allotted not more than 100 acres of infested cotton for the season.

This machine has three nozzles, but will usually cover four rows at a trip.

## HOW TO DUST.

Use only pure calcium arsenate in the form of a dry powder.

Apply this only in the dust form.

Purchase this to conform to the following specifications:

Not less than 40 per cent total arsenic pentoxid.

Not more than 0.75 per cent water-soluble arsenic pentoxid.

Density not less than 80 or more than 100 cubic inches per pound.

Use only dusting machinery especially constructed for cotton dusting.

Dust only when the air is calm and the plants are moist. This practically means making only night applications.

Use about 5 to 7 pounds of calcium arsenate per acre for each application.

Start dusting when the weevils have punctured from 10 to 15 per cent of the squares.

Keep your cotton thoroughly dusted until the weevils are under control. This usually means about three applications at the rate of one every four days.

Then stop poisoning until the weevils again become abundant.

If the weevils become abundant early enough to injure your young bolls, make one or two more applications late in the season.

If you have a heavy rain within 24 hours after dusting, repeat this application immediately.

Do not expect to eradicate the weevils. Dusting merely controls them sufficiently to permit a full crop of cotton and you can always find weevils in the successfully poisoned field.

Keep your cotton acreage low and do everything possible to increase your yield per acre, as it costs just as much to dust one quarter bale per acre cotton as bale per acre cotton.

Always leave an occasional portion of a cut untreated for comparison with the adjoining dusted tract. This will show how much you have increased your yield by dusting.

If you are considering dusting, write to the Delta Laboratory at Tallulah, La., for more detailed information; also ask the advice of your county agent.

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