

## Circular No. 6

### Fighting the Boll Weevil

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Cotton growers  
must reckon  
with the weevil

As indicated in Circular No. 5, the Mexican cotton boll weevil must be reckoned with in the production of all future cotton crops within the infested area.

Observations as to the effect of the weevil in newly infested territory in reducing cotton production shows that in sections where the attempt was made to continue cotton raising in the old way, the yield has often been reduced to about 50 or 60 per cent. of the normal crop during the first few years of the weevil's presence. Gradually the methods of raising cotton became adjusted to the necessities of the case, other crops besides cotton are grown increasingly, and the cotton crop has regained its normal size. The last condition of the cotton grower is better than the first, but the path of progress has led through several years of loss and suffering. Through the accumulated knowledge and experience of experts who have been fighting the weevil, and the demonstrations of many thousands of planters, we now know that the weevil can be controlled and cotton culture continued even more successfully than has been usual in the past.

#### IT IS NOT A HOPELESS FIGHT.

Not a hopeless  
fight

**COTTON CULTURE NEED NOT BE ABANDONED.** But to continue growing cotton successfully several improvements in our agricultural practice are imperative. Some of the steps in a reliable system of fighting the weevil successfully will be briefly outlined in this circular. This outline cannot even mention many points which might be profitably followed, but is intended to show only the principles and some of the special practices which have proven effective in other sections and which will in time become generally adopted here.

Shall we not begin this fight at once, rather than first lose a large part of two or three crops and then be forced to adopt these ideas?

1. No principle has been more clearly established than this: **Successful cotton crops in weevil infested territory must be made early.** The multiplication of the weevil is so rapid that after the third or fourth

Cotton crop  
must be made  
rapidly

generations become adult there is no chance for more bolls to be set. The presence of the weevils absolutely prevents any "top crop," and usually makes the raising of "late cotton" practically an impossibility.

Early planting alone is not enough

More things are involved in making a good crop of cotton early than merely early planting of the seed. That alone is not enough to insure success. It is not so much a question of planting extra early as it is of reducing as much as possible the time between the first formation of the squares and the development of an abundance of bolls to a size at which they are practically resistant to weevil attack. With most varieties weevils cannot puncture and successfully deposit eggs in bolls that are half grown or larger.

Select seed carefully

2. One of the most important and best paying steps in making large yields and earlier maturing crops is the careful selection of seed. **We cannot afford to continue to plant "gin-run" seed.** You may pay fancy prices for high-grade seed to start with, but after a few years without selection and with careless ginning, it will be badly mixed and give much poorer yields. Use your own brain and keep the money in your pocket instead of paying for the use of some other man's intelligence and industry. Get good seed to start with, then select carefully for next year's planting. Remember that it is possible to largely control the size of the plant, its branching, fruitfulness, size of bolls, number of locks and percentage, length and quality of lint, time of maturity, etc., by careful seed selection. For further suggestions on Seed Selection, see Circular No. "A" 67, U. S. Department of Agriculture, Bureau of Plant Industry.

Pick cotton promptly

3. It should need no argument to prove that cotton should be picked out promptly after it opens. There is nothing to gain and much to lose by allowing it to hang and weather and beat out onto the ground even where there are no weevils, but where weevils occur, prompt harvesting cannot be too strongly urged. This is to clear the way for the early destruction of all green cotton. We cannot even afford to wait for the last few bolls or "scrap-pings," as this waiting delays the work of destroying stalks.

Destroy all green cotton as early as possible to save next year's crop

4. Having selected seed for next year's planting and harvested the main crop, then the next step in point of time is to **UPROOT, WIND-ROW AND BURN THE COTTON STALKS. STARVE THE ADULTS WHICH CAN FEED ONLY ON COTTON. PREVENT THE DEVELOPMENT OF**



**THOUSANDS OF WEEVILS** in the late fall growth of squares and bolls which never can do anything but breed weevils. Do this to save next year's crop.

See Circular No. 7 on this subject.

Raise a variety of crops: Diversify

5. The weevils can live only on cotton, but neither the farmer nor his stock can do this. Our monopoly of cotton raising and the assurance of some crop even with the most shiftless of methods, have been among the greatest curses of our Southern agriculture. The effect has been particularly bad during the past fifty years. We cannot continue a "one crop" (cotton) system with the boll weevil present. **We can and must raise a variety of crops. This is diversification.** Plant especially such crops as can provide food supplies for man and beast on the farm. Stop having to buy and pay big profits to others for the food that you can as well raise at home. Diversification makes it possible also to build up the soil and make it more productive without depending solely on expensive commercial fertilizers. In no section can a greater variety of crops be grown than here in Alabama, and we have the added advantage of being able to secure from two to four crops each year on the same field.

Rotate crops

6. Raising a variety of crops brings up many questions as to desirable combinations or changes that should be made from year to year. This is what is meant by the term **rotation of crops**. Rotations may be planned for a number of purposes aside from the direct result of the crops secured. The vegetable matter in the soil can be increased and fertility can be improved especially by using such crops as clovers, cow-peas, beans, velvet beans, vetch, etc. The growth of weeds may be prevented and the injury due to both fungus diseases like the boll rot and insect pests such as the boll weevil may be largely reduced by the wise practice of rotation.

Prepare soil more deeply and thoroughly before planting

7. The nature and extent of preparation to be given the soil before planting and the cultivation to be given the crop while it is growing become exceedingly important questions in producing profitable crops and especially early maturity in cotton. It is needless to say that the average cotton field is not "worked." It is barely "scratched." The results of innumerable experiments and the practical experience of all of the most successful planters prove that **deeper plowing with more thorough working of the soil before planting** is one of the first principles in any more successful system of agriculture.

Plant as early as soil and air conditions are favorable

8. It is a well known fact that early planted cotton commonly yields better than that planted late.

Extremely early planting is hardly desirable or advisable. The object is to have the plant grow off rapidly and steadily, so that the fruiting may be abundant but the period from squaring to the real making of the crop may be as brief as possible. Plant then as early as soil and air conditions become favorable.

Cultivate only  
about one and  
one-half inches  
deep

Cultivation of the crop should be shallow and frequent. Its first object is to keep the ground in a favorable condition for the growth of the plants and the destruction of grass and weeds is accomplished incidentally. The surface of the ground should be stirred every week or ten days during the growing season to a depth of about 1 1-2 inches. Where the weevil is found the crop should not be "laid by" as early as usual, but cultivation continued two or three weeks longer.

Late planting  
ineffective

Late planting with the idea of starving out the over-wintered weevils is entirely ineffective and should never be attempted in weevil territory.

Summer control  
difficult

9. Although no summer practice is nearly as effective as is the early fall destruction of stalks for holding the weevils in check, there are several measures that may be profitably followed under especially favorable conditions. The deciding factors are usually an available labor supply that costs little if any extra, and a moist condition of the surface soil when squares begin to fall. While it will not often pay to employ hands to pick up fallen infested squares at even 75 cents per day, it will pay to do this if the children in the family can do the work. Most cotton squares fall to the ground in about ten days after the weevil eggs are placed in them. In a week or ten days more they may produce adult weevils. If it is very hot and dry and surface soil forms a dust mulch, those squares would be "baked" in the sunshine and heat so that all weevil stages in them would be killed. It would not then pay to. If done at all, it pays to get the first fallen squares and to do the work thoroughly. Begin the collection about two weeks after the first squares are formed, and then go over the fields every fifth or sixth day for a month or more.

Pick fallen  
squares

We can make  
cotton in spite of  
weevils

No direct insecticidal practice can be recommended, as it is practically impossible to reach the weevils on account of their peculiar feeding and breeding habits. This is the reason why we must depend upon cultural methods for weevil control. If the cultural methods here outlined are faithfully practiced then there will be little difficulty in producing increasingly profitable crops of cotton in spite of the boll weevil.