

Soil and Crop Problems

By B. L. MOSS

Mississippi Regains Second Place in Cotton Production

BACK in pre-boll weevil times, Mississippi regularly stood second in cotton production, being surpassed only by Texas. But in recent years she has been



MR. MOSS

led by Georgia and South Carolina, and in some years by Arkansas and Oklahoma.

However, the weevil is now practically all over Georgia and South Carolina, and these states have fallen off tremendously in cotton production.

Georgia, for instance, in her biggest year before the weevil ginned about 2,750,000 bales, whereas her 1921 crop is placed at 840,000 bales by the Department of Agriculture, a drop of nearly 2,000,000 bales, or around 70 per cent. The Government estimate for the leading cotton states for 1921 are given below:

Texas	2,200,000
Mississippi	870,000
Arkansas	860,000
Georgia	840,000
North Carolina	800,000
South Carolina	760,000
Alabama	653,000
Oklahoma	530,000

Judging the future by the past, I think it is quite safe to say that it will be many years before Georgia and South Carolina get back to their production of pre-weevil times. Mississippi and Louisiana have now had the weevil for 12 or 15 years, and they are still far under what they produced in the old days. In fact, I don't see, with the weevil now practically all over the Cotton Belt, how it will be possible to make such bumper crops as we made in 1911 and 1914.

Applying Fertilizers for Cotton

IN APPLYING fertilizers for cotton, after land is bedded the first time, I throw back one furrow with a turn plow, on this I put my mixture of acid and nitrate, and then finish bedding out. A narrow is then run over the bed just ahead of the planter, to put the seed bed in good condition.

By thus putting the fertilizer on one furrow I get it at what I consider just about the right depth. I do not like to put it in the water furrow, as the little plant roots do not come in contact with it quickly enough.

Nitrate for the Early Garden Crops

STABLE manure, of course, is a great garden fertilizer and should be used liberally, along with acid phosphate. But, for the early garden especially, nitrate of soda is splendid, and should be used liberally. Cabbage, mustard, turnips, and other crops that should make a quick, vigorous growth, are particularly responsive to applications of nitrate.

In the winter and early spring months, the weather is so cool that the nitrogen in manure is only slowly available, and the immediately soluble nitrogen in nitrate of soda is very helpful in promoting vigorous growth. A side-dressing at the rate of 100 to 150 pounds per acre shortly before the most vigorous growth is desired will generally do the work.

What Are the Factors That Affect Length of Staple in Cotton?

A SATISFACTORY answer to the question above I should greatly like to have, preferably from our experiment stations, and as a result of years of careful tests. We have many theories as to why one section will produce cotton of a better staple than other sections, but so far I haven't seen much definite proof, and in the absence of this, these theories must remain theories only.

It is easy to say that all the Cotton Belt should grow cotton with a staple of an inch or better, but is this economically practicable? A rather careful study of variety tests at various Southern stations leads me to believe that, as a general rule, as length of

staple increases, yield per acre decreases. So, then, unless the premium for a longer staple is sufficient to offset the decreased yield, it is not economically practicable to grow the longer staple cotton.

It is a theory of mine, plausible, I believe, but unproved, that the length of time a boll remains unopened on the stalk has a direct influence on the length of the staple. If the bolls pop open quickly, I believe we have more or less immaturity, and this means a shortened, weakened fibre. This year, for instance, we had a very early opening of cotton in most sections of the Belt, and I believe the staple suffered accordingly.

It seems to me that the established staple-producing sections as a rule have rather heavy clay soils, strong in plant foods and retentive of moisture. On such soils naturally the bolls are slow in opening, giving the staple ample time to mature. The shortest staples are, on the other hand, produced on thin, light sandy lands,—soils that naturally favor early opening.

Now I believe that a cotton with say an inch-and-a-quarter staple can be brought to the thin, poor sandy lands of the Lower South, and in five years the staple will be an inch or less. On the other hand, I believe a three-fourths-inch cotton can be taken to the Delta and grown on good strong land for five years, and the staple will run an inch and possibly better.

Holding as I do these beliefs, I naturally question the wisdom of those advisors of the farmer who urge that we all produce cotton of a longer staple. Before such advice is so indiscriminately given, it should have the facts as to its wisdom back of it. These facts are not yet available, and will not be until our stations make some accurate tests over a period of years. This I hope they will do.

The Cotton Market Situation

THE cotton market started the new year with a bad setback. The decline amounted to about 3/4 cent. Just before the holidays and during them, there was considerable buying in anticipation of a better feeling with the turn of the year, which placed the market in a vulnerable position. Some untoward developments just at the turn caused sudden reversals of sentiment and a sharp break in prices resulted. The developments referred to included some discordant notes in the harmony at the arms conference, and bank troubles at Chicago. These caused acute depression in grain and stocks, and the feeling was reflected in cotton.

Intrinsically, cotton is in as strong a position as ever. Consumption is proceeding at a rate well in excess of last year, and the trade has now become used to the surprising bureau estimate of the crop at 8,340,000 bales. Before the estimate, it had become evident that the total would approximate 8,000,000 bales, but it seems that the bureau has gone a little too far the other way. However, that is a small matter, and not worth disputing over. The matter of a cotton supply is fairly well in hand, but holdings need to be marketed with prudence and restraint.

W. T. WILLIAMS.

Savannah, Ga.

Use Fertilizers Intelligently

I FOUND one farmer recently who has been using 6 per cent potash on his corn, and this on red clay land," says J. R. Clark, Richland County, S. C., agricultural agent. "He had used last year about 600 pounds per acre of a mixed fertilizer containing 6 per cent potash and had put most of it under the corn at planting time. I think I have convinced him that this does not pay. I am advising all of my farmers (1) against the use of fertilizer without first determining what they need, and what amount will be best, and (2) not to spend money for high-priced ingredients from which they will not get adequate returns."

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