

Enormous Wastes in Our Cotton Farming*

BY CLARENCE H. POE,

Editor of *The Progressive Farmer*, Raleigh, N. C.

A few weeks ago the writer obtained from Chief Statistician O. P. Austin, of the United States Department of Agriculture, a signed statement showing that for the year ending June 30, 1905, the value of our cotton and cottonseed exports was \$410,657,652 as against \$410,205,653 for "all other agricultural exports." Translated from the language of statistics into that of actual throbbing life, this means that you may take all other animal and vegetable products exported any year—wheat, corn, barley, oats, rye, flour, meal, oat-meal, fruits, vegetables, liquors, tobacco, wine, cattle, hogs, horses, sheep, beef, pork, mutton, butter, cheese, canned goods, lard, oils, wool, hides and skins, etc., etc.,—the entire contribution, except cotton, furnished the outside world by every American farm, ranch, dairy, fruit farm, stock farm and garden, from Maine to California, from Michigan to Texas, from Alaska to Hawaii, including the South's own not unimportant share,—take all this, and with the proceeds of one year's cotton and cottonseed exports, the Southern cotton grower could buy the whole colossal aggregation, and still have a comfortable surplus for pin money.

But much as cotton now means to the South, it is to mean a great deal more. Men who read this article will live to see the South make 30,000,000 bales—and make the crop at a great saving as compared with our present wasteful practice.

It is not true, as a distinguished authority has charged, that our general methods of growing and handling cotton are "as bad as can be;" but it is true that they are susceptible of vast

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improvement, and that enormous leaks in cotton profits are yet to be stopped.

One of the greatest leaks that any industry has ever known was the utter waste of cottonseed for a hundred years. Cottonseed used to be regarded as of so little use, in fact so much in the way, that cotton gins within the last two generations have been built over streams in order that the seed might be easily washed away! In some states laws have actually been passed requiring ginners, for the public health, to remove the rotting piles of waste seed!

Now the raw cottonseed are worth nearly \$100,000,000, or about one-fifth the value of the cotton crop, and so rapidly are we finding new uses for them—all of which will be considered at greater length in other chapters in this book—that Mr. Edward Atkinson was probably not far wrong when he declared that it would be worth while for the South to grow great crops of cotton even if the plant made nothing but seed, no lint at all. How varied are the uses of cottonseed—meal, oil, hulls, and linters—has been suggested in the introduction to this volume.

The great trouble is that in the new awakening to the enormous value of cottonseed as a fertilizer, we have not yet come to a proper appreciation of their value as a feed also—for in fact we may feed them and still get three-fourths of their fertilizing value in the manure from the animals. How unusually nutritious they are as a food may be guessed from the fact that for feeding purposes 100 pounds of cottonseed equals in value 116 pounds of corn, and a hundred pounds cottonseed meal equals 175 pounds of corn. Cottonseed at 25 cents a bushel or cottonseed meal at \$25 a ton, is as cheap as corn at 40 cents a bushel.

The folly, therefore, of burying this most valuable of cattle feeds—burying it unused to rot in the soil—must be apparent to all. What should we think of using wheat bran or corn meal as a fertilizer for cotton without first having our live stock extract its feeding value? Yet in the one State in which the authors live, about \$3,000,000 worth of cottonseed meal is used as a fertilizer—which means that \$2,500,000 in

feeding values goes to nothing, and is a dead loss to our agricultural interests.

Moreover, we are learning more and more each year of the feeding values of cottonseed meal—learning how to combine it with other feeds, and feed in larger proportions to different classes of stock. In fact, its use as a human food has been seriously contemplated, a thoughtful journal recently declaring that “if cotton grew in Michigan, Battle Creek would be marketing an hundred thousand tons of the cottonseed meal mixed with wheat flour and put in pound packages. It would be advertised, and, with truth, as the only complete ration for the human race. A pound of cottonseed meal contains all the elements necessary for wholesome, nutritious bread; it contains three times as much digestible protein as the highest grade of wheat flour or the best oatmeal; it contains twice as much oil as oatmeal and ten times as much oil as wheat flour.”

Whether or not we shall ever have cottonseed meal breakfast food, the fact remains that in using it as a fertilizer we are wasting millions in animal feeding values every year—and this is one great leak in cotton profits we shall eventually learn to stop.

Next to our waste of cottonseed the greatest leak in cotton farming has been the shameless lack of attention to seed selection. For every other crop the farmer has chosen his seed for planting with the greatest care—his corn from the most productive stalks and the best ears from these stalks; and with wheat, cane, tobacco, and even with his garden seed he has not been unmindful of the influence of heredity and the possibilities of breeding. But with our cotton crop it has been different. As a rule seed for planting have been taken at random from the gin—a conglomerate mixture of the product of good, bad and indifferent plants. But now farmers are beginning to pick seed from the best stalks and have this selected seed ginned separately for planting purposes. From our knowledge of what actual tests have accomplished we feel perfectly safe in asserting that by proper selection of seed through a ten year period the average yield per acre could be increased at least twenty-five per cent. At present prices—

after deducting all increased expense (there would be none except for picking, hauling and ginning)—this would mean an increased profit for Southern farmers of at least \$100,000,000 each year.

We are also wasting millions of dollars for the purchase of nitrogenous fertilizers, when the cow pea might be made to keep our Southern soils abundantly supplied with this most costly of all fertilizing ingredients. Making a rough guess, we should say that the farmers in the Carolinas and Georgia spend at least \$8,000,000 a year for commercial nitrogen, when a proper system of rotation, including leguminous crops, would abundantly supply the soil with this ingredient.

There has been no noteworthy improvement in the cotton gin since the new born idea was first worked out by Eli Whitney; and our baling methods are also notoriously inefficient. "It is contended," says Mr. Thomas P. Grasty, "that the saw gin actually wastes or destroys over six per cent of all the cotton raised in the Southern States—meaning the destruction each year of nearly \$40,000,000 worth of property belonging to the farmers of the South." By its rough handling it is also asserted by the highest authorities, that the saw gin destroys over forty per cent of the initial strength of the cotton fiber. No wonder one of our American cotton specialists is on record as declaring cotton to be "the most barbarously handled commercial product in the world." Besides the waste, the destruction of fiber, and the lack of uniformity in size of bales, gins at present are able to pack cotton at the average density of only fourteen pounds per cubic foot. Every bale not sold to local mills, therefore, must be sent to some cotton compress and the size reduced two-thirds before it can be exported.

A fortune awaits the man who will invent a compress requiring small horse power, so that the bales with one handling at the gin may be compressed tightly enough for export purposes; just as a fortune awaits the man who will invent a roller gin for upland cotton, or any other economical plan by which the present wastes and the barbarous laceration of the fiber may be obviated.

With American inventive talent put to this task, we may

hope before many years to stop this drain on the wealth of the cotton farmer.

Another waste in former days was in marketing the crop, but here there has been in recent years a marvelous gain in directness and economy. Formerly the farmer sold to his merchant at the county seat; the merchant at the county seat sold to the commission merchant at the State capital; the commission merchant sold to the dealer at the seaport; the seaport dealer sold to the New York exporter; the New York exporter sold to Liverpool, and Liverpool sold to Manchester. Now all this is changed—how greatly changed will be seen from the report of a cotton exporting house which handles more than 300,000 bales each season. "The cotton is now bought on the plantations or at the railway stations throughout the whole cotton belt by the representatives of large exporting houses and by the mills," said the manager of this exporting house to us the other day. "Our firm employs more than one hundred buyers for this purpose, and the cotton is shipped daily to the port where it is expeditiously sampled, classified, weighed, compressed and loaded upon ships for foreign ports with almost incredible swiftness. We have had a train loaded with cotton fifty miles from port at 7 a. m., and at 7 p. m. of the same day it has been stored on board a foreign ship and bills of exchange drawn and negotiated!"

In view of these facts, we may regard this leak in the export trade as belonging to the past rather than to the present.

Lastly, I come to what is perhaps the greatest leak of all—not to the cotton farmer solely, but to the Cotton Belt. We are still shipping 60 per cent of our cotton to Europe—almost as uneconomic, as has been said, as it would be to ship our iron ore instead of turning it into the finished product here.

And in view of the leaks we are to stop and the great resultant savings that are to enrich the South, and in view of the prospective remedying of this last great leak, we cannot better conclude this chapter than by quoting an extract from an address by Mr. Richard H. Edmonds, of the *Manufacturer's Record*, delivered in New York city a few months ago—not a mere day dream, a flight of fancy, but a prediction of what

actually bids fair to come to pass within the lifetime of most of those who read this article:

“It is not to be expected that the South ever will manufacture its entire cotton production, for, when it has reached the point where it consumes in its own mills the 10,500,000 bales which now measure its average crop, the world will be demanding of it—and it will meet the world’s demands—probably 20,000,000 bales. But the utilization in its own mills of 10,000,000 bales would mean the employment of 1,000,000 operatives, the investment in mills and textile machinery of not less than \$2,000,000,000 and the annual output would be worth \$200,000,000.

“Then, indeed, would the South, without monopolizing the world’s cotton manufacturing interests, be the dominant factor, the center of the world’s cotton mill business, producing 20,000,000 bales and consuming at home in its own mills, 10,000,000 bales.

“Both will come about in due time. The South sees before it this prize, rich beyond words to describe, creating wealth beyond anything which this section or any other section has known, and this is the prize—a prize great enough to enrich an empire—for which it has entered the race. That it will win admits of no question.”