

THE PROGRESSIVE FARMER

and The Cotton Plant.

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COTTON SEED: THEIR FERTILIZING VALUE AND THE PROPER BASIS OF EXCHANGE FOR MEAL.

The low price of cottonseed for sometime past has created a great deal of interest in this State, as is shown by the large number of letters on the subject which have come to us from Progressive Farmer subscribers. Cottonseed and cotton-seed meal are very valuable, both for feed and for fertilizer. In the present article we will consider their values as fertilizers.

Users of fertilizers know what acid phosphate, kainit, other fertilizer materials and mixed fertilizers cost. The fertilizing value of cottonseed and cotton-seed meal can best be shown by comparison with the above fertilizing materials. In fact, it is with these that they have to compete when they are put on the market for use as fertilizers, or when used at home as such.

Fertilizing Ingredients of Cotton Seed.

In 14 per cent acid phosphate there are fourteen pounds of phosphoric acid (the valuable fertilizing constituent of the acid phosphate) in each one hundred pounds, or 280 pounds in one ton of two thousand pounds. At \$14 per ton, the phosphoric acid costs five cents per pound. Kainit carries about 12.5 per cent of potash, the fertilizing constituent of value in this material. One ton of kainit would contain 250 pounds of potash, which at \$13.50 per ton would make the potash cost 5.4 cents per pound.

Cotton-seed meal in this State must contain not less than 7½ per cent ammonia or 150 pounds in the ton. When meal of this grade sells for \$24 per ton, and the phosphoric acid in it is valued at five cents per pound, the potash at 5.4 cents (the price of these materials in acid phosphate and kainit), the ammonia would cost 12.8 cents per pound. On basis of this data,

One ton (2,000 pounds) cotton-seed meal contains and is worth:

Ammonia, 150 pounds at 12.8 cents	\$19.20
Phosphoric acid, 56 pounds at 5 cents	2.80
Potash, 36 pounds at 5.4 cents	1.94

Fertilizing value one ton cotton-seed meal..... 23.94

In the above calculation we have allowed 2.8 per cent phosphoric acid, 1.8 per cent potash, in the meal. These constituents would have a value of \$4.74 and the ammonia \$19.20 in one ton.

Allowing the same values for phosphoric acid and potash as given above, when the meal sells for \$26, the ammonia would be worth 14.2 cents per pound, as follows:

One ton (2,000 pounds) cotton-seed meal contains—

Ammonia, 150 pounds at 14.2 cents	\$21.30
Phosphoric acid, 56 pounds at 5 cents.....	2.80
Potash, 36 pounds at 5.4 cents	1.94

Fertilizing value one ton cotton-seed meal..... 26.04

Value of Cotton Seed for Fertilizer.

Using the same values for the three fertilizing constituents as given to them in cotton-seed meal above,

One ton (2,000 pounds) cottonseed would contain and be worth—

Ammonia, 75 pounds at 12.8 cents	\$9.60
Phosphoric acid, 26 pounds at 5 cents.....	1.30
Potash, 24 pounds at 5.4 cents	1.30

Fertilizing value one ton cotton seed

When ammonia in the seed is valued at 14.2 cents per pound, the price which is paid for it when meal is sold at \$26 per ton,

One ton (2,000 pounds) of seed would contain and be worth—

Ammonia, 75 pounds at 14.2 cents	\$10.65
Phosphoric acid, 26 pounds at 5 cents.....	1.30
Potash, 24 pounds at 5.4 cents	1.30

Fertilizing value one ton of cottonseed

It is thus seen that cottonseed, pound for pound, have a little more than one-half the fertilizing value of meal. When the meal is high-grade, containing eight or more per cent of ammonia, it has more than double the fertilizing value of seed.

Thirteen dollars and twenty-five cents per ton for seed is about the same as twenty cents per bushel, and \$12.20 corresponds to 18.2 cents per bushel.

It therefore follows that the farmer who sells cottonseed at twenty cents per bushel and buys meal at \$26 per ton is getting exactly the same amount of fertilizing material in the meal that he carried to the mill in the seed. In like manner 18.2 cents per bushel for seed corresponds to \$24 per ton for meal in fertilizing value.

When seed are sold for 18.2 cents per bushel and meal bought at \$26 per ton the farmer actually gives the oil mill man \$2 more in fertilizing value in the seed than he gets back in the meal. With seed at sixteen cents per bushel, the difference is even greater and no farmer can afford to sell seed at these prices and buy meal even at \$24 per ton.

On What Basis Should Seed be Exchanged for Meal?

Considerable quantities of seed are exchanged for meal at the oil mills, the rate of exchange being usually 1,100 to 1,400 pounds of meal for a ton of seed. It has been seen from the above that one ton of cottonseed contains \$12.20 worth of ammonia, phosphoric acid and potash on the basis of what is paid for these three constituents in acid phosphate at \$14, kainit at \$13.50, and cotton-seed meal at \$24 per ton each.

What quantity of meal will contain these constituents to the same value?

One thousand and seventeen pounds of 7½ per cent ammonia meal will contain and be worth—

Ammonia, 76.3 pounds at 12.8 cents	\$9.77
Phosphoric acid, 28 pounds at 5 cents	1.40
Potash, 18.3 pounds at 5.4 cents99

Fertilizing value of 1,017 pounds cottonseed meal. 12.16

which is the same as the fertilizing value of one ton of seed.

Whatever the farmer gets above this goes to pay him for the labor and expense of hauling and handling the seed and meal in making the exchange. These are items well worth consideration and enough meal above 1,017 pounds should be obtained in the exchange to make it worth the while of the farmer to make the exchange.

The oil mill man gets about forty-five gallons of oil from a ton of seed, which varies in price from 15 to 30 cents or more per gallon. It is unusually low this season. At 15 cents the oil is worth \$6.75, but it has no value as a fertilizer. It would seem reasonable that the oil mill should give the farmer a reasonable share of the value of the oil in the seed.

Another article will follow later on the use of cottonseed and cotton-seed meal with other fertilizing materials for different crops.

B. W. KILGORE.

Call for Cotton Growers' Meetings.

Messrs. Editors: It has been requested by the Executive Committee of the Southern Cotton Growers' Association, at their meeting in New Orleans, that the various county meetings be held all over the cotton growing territory Thursday, 16th, at the county seats. Also that State meetings be held Tuesday, 21st, at the State Capitals. Therefore, I request the cotton growers of North Carolina to meet at their respective court houses in county convention the 16th inst., and there elect delegates to attend the State convention which will convene in Raleigh Tuesday, 21st, at 12 o'clock.

In some counties calls have been made to meet the 18th, which is all right. The main purpose is to have the county meetings on some day preceding the State meeting so as to elect delegates to the State meeting.

I suggest that in counties where no call has yet been made, a call be issued at once by some farmer and have a meeting if only a few can be gotten together. The work of completing the organization can be arranged later. The main thing now is to get the work started. Let every cot-

ton growing county in the State be represented at the State meeting the 21st. Reduced rates on all railroads are expected.

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