

CONNECTICUT
AGRICULTURAL EXPERIMENT STATION

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The Trade in Cotton Seed Meal.

The Bulletins of this Station are mailed free to citizens of Connecticut who apply for them, and to others as far as the editions permit.

THE TRADE IN COTTON SEED MEAL.

BY E. H. JENKINS.

About two hundred thousand dollars were paid for cotton seed meal by farmers of this State in 1911. Judging by present indications as much or more will be paid in the year 1912. Most of this meal is used as a fertilizer.

By the work of this Station, both in the laboratory and in its dealings with the trade, it has been made possible for the buyer to assure himself of the quality of the meal he buys and, if it is inferior, to receive a fair rebate on the price.

It is therefore his own fault if he gets other than a "square deal" in the buying of cotton seed meal.

THE COMPOSITION OF COTTON SEED MEAL.

The cotton seed meal sold thus far in Connecticut this Spring contains (an average of 141 samples representing about 3,500 tons) 6.52 per cent. of nitrogen. It also contains about 3.15 per cent. of phosphoric acid and 1.9 per cent. of potash. The average price, depending somewhat on quality and ranging from \$33 to \$26, has been \$30.42.

But the color has ranged from bright yellow to very dark brown and the percentage of nitrogen, the chief valuable element in it, from 7.60 to 5.27. At the average price these differences in composition mean a difference to the farmer of about 7½ cents a pound for his nitrogen.

The causes of this wide range in composition are, quality of the cotton seed itself, more or less imperfect removal of the hulls and oil in the process of manufacture and in some cases carelessness or fraud in hulling and fraud in adding ground hulls to the meal.

THE PRESENT STATE OF THE TRADE.

The following is in substance the statement of the wholesale dealers in meal. Cotton seed meal is sold to dealers in this State chiefly by commission houses, which in turn buy it from large and small mills in the cotton-growing region. These mills

affix to the sacks the tags supplied by the commission houses and ship it as directed to purchaser at the North.

The houses which sell it to the Connecticut trade never see the meal or have it in their possession. As to its quality they rely on the statements of the mills with which they trade, a confidence which frequently appears to be vain.

As a result the guaranty on the meal represents little more than a somewhat intelligent guess as to its composition.

THE SYSTEM OF CONTROL.

The following plan has been gradually worked out and seems to be well suited to meet the above very unsatisfactory conditions of trade, which must be temporary.

Each of the large dealers in the parts of Connecticut where meal is chiefly used as a fertilizer draws a sample from at least twenty bags in each car lot. He must do it in the way prescribed by the Cotton Seed Crushers Association, for otherwise he cannot sustain a claim for shortage based on the analysis of this sample. The method of sampling is fair to all parties.

This sample is divided and a portion of it sent to this Station, with the number of the car. The analysis is reported both to the dealer and to each customer whom he names as receiving meal from that car. This often makes it necessary for the Station to prepare and mail half a dozen reports of a single analysis.

In case the percentage of nitrogen found by the Station falls below what is guaranteed by more than one or two-tenths per cent., the Connecticut dealer sends his bill to the shipper or commission man for a rebate, the terms of which have been agreed upon and which in some cases are printed on the tags.

It is the practice of the leading dealers to state on their bills to buyers the number of the car or warehouse number of the shipment, and this should always be done.

Thus, from the dealer or from the Station the buyer can find out the analysis of the particular lot sold him, and if it is below the guaranty he should claim his rebate from the Connecticut dealer, who will in any case get it from the commission house whether his customers call for their share of it or not.

He may also, if he chooses, send a sample of his purchase to the Station for analysis.

If he does this he must bear in mind that proper sampling is no less important than accurate analysis, and that careless sampling makes the analysis worse than useless. The seller will not and should not accept an analysis unless he has proof that the sample was properly drawn. At least twenty bags should be opened in every car lot, and about a pint taken from each by thrusting the hand or a cup down into the meal. These samples should then be mixed carefully, and two samples drawn from the mixture, one to be sent to the Station and the other held for the manufacturer in case it is called for. The one who samples should be prepared to make affidavit as to the date, No. of car, number of bags opened, etc. The sample sent to the Station should be fully described on a blank, which will be furnished on application.

This information should be given to the Station before the analysis is undertaken, for the Station has no right to do work with state funds unless it has some assurance that the work, when done, will be of value to the public. Frequently we receive samples with no marks to identify them, broken packages from which a part or all the sample has run out over the mail matter, samples quite too small to be representative, and samples not of stock delivered in the state, but of what some shipper *proposes* to supply. These, of course, are worthless, but they are not positively harmful, whereas a sample of meal actually sold in the State, which is apparently all right, but has not been carefully drawn, may by its analysis do great injustice either to buyer or seller.

At the end of the season all analyses of cotton seed meal are tabulated and published in a Station report. There is neither time, money nor means of publishing the separate analyses as they are finished.

But the work of the Station makes it easy for any buyer of cotton seed meal to protect himself from loss at the time of its purchase.