

PROGRESSIVE FARMER

THE INDUSTRIAL AND EDUCATIONAL INTERESTS OF OUR PEOPLE PARAMOUNT TO ALL OTHER CONSIDERATIONS OF STATE POLICY.

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Agriculture.

BUYING COMMERCIAL FERTILIZERS.

A Thoughtful Farmer and Trucker Discusses Some Costly Mistakes.

Correspondence of The Progressive Farmer.

How many farmers know what is in the guano which they put under their crops? How many even take the trouble to read the analysis on the sack, and how many know what it means when they read it? Ask yourselves these questions, friends, and see that this does not apply to you. You know very well that the knowledge of the great majority of farmers about fertilizers, goes no further than the name of the brand they buy; that outside of this, all else is guesswork, and they take unquestionably whatever the agent may tell them about the fertilizer he sells.

I have in my mind an agent who is very enthusiastic over a cotton fertilizer analyzing 8 per cent. phosphoric acid, 3 per cent. ammonia, and 2 per cent. potash, and he is selling hundreds of tons of this low-grade stuff principally, I should imagine, because it is cheap. It looks black and smells strong, and the unsuspecting farmer does not know that in a ton of this fertilizer he is buying between six hundred or seven hundred pounds of sand, or some substance of no fertilizing value, which has to be used as a filler in order to manufacture a cheap fertilizer. He is charged the same price for plant food in a cheap low grade guano, that he is in the high grade expensive brands, and he is paying freight and handling upon a lot of material of which he has more than an abundance on his farm already.

Now, friends, when you buy your guano don't buy tons of dirt, buy plant food. Look at the analysis on the sack, and figure on the first row of figures; the second is simply put there to make you think you are getting more than you are. Remember that 1 per cent. is one pound in a hundred; that this pound is what you are paying for, and that it is worth just so much on the market; 8 per cent. of phosphoric acid is 8 pounds of phosphoric acid in a hundred pounds, and is worth on the market about 5 cents per pound, or 40 cents; 2 per cent. or 2 pounds of ammonia is worth at present prices about 14 cents per pound, or 28 cents, and 2 per cent. or 2 pounds of potash is worth 5 cents per pound or 10 cents. This makes the plant food in one hundred pounds of this fertilizer worth 78 cents, and a ton, 20 times 78 or \$15.60. This is what it would cost you if you bought the materials and mixed it yourself. For the ready mixed article you pay about \$18 or \$20 per ton; a part of which advance goes to pay for the dirt which the fertilizer companies have mixed with the plant food in order to make you a cheap guano; and you could buy the same amount of plant food in 1,200 or 1,500 pounds of a higher grade fertilizer.

In the fertilizer mentioned above, 1,000 pounds of acid phosphate furnishes 7 per cent. of phosphoric acid, the other 1 per cent. came from the 300 pounds of blood which was used to supply the 2 per cent. of ammonia, while 80 pounds of muriate of potash gave the 2 per cent. of potash. This leaves, you see, 620 pounds of some non-fertilizing substance to complete the ton. Of course this would not have been so much if low-grade tankage had been used, instead of blood, to supply the ammonia; but it would have added dirt just the same, of which all low-grade fertilizing materials contain a large amount. If we are to use low-grade fertilizers, the plant food in them should be enough cheaper to overcome the extra cost of freight and handling. The reverse, however, is really the case. The farmer's ignorant demand for cheap fertilizers has put a premium on dirt, as it were, and raised the price of low-grade fertilizing material above the place they would naturally occupy. Truly, every one pays dearly for his ignorance. Then, too, the low-grade fertilizer is never well balanced. Eight per cent. phosphoric acid, 2 per cent.

ammonia, and 2 per cent. potash shows entirely too small an amount of potash, and hardly enough ammonia even for cotton. It is useless to pay out money for one element of plant food unless the other elements are also in sufficient quantities to enable plants to use it. For plants require all three elements: ammonia, phosphoric acid and potash; and their growth and yield is fixed by the smallest of these elements present. If the fertilizer referred to had contained 4 per cent. potash and 3 per cent. ammonia, instead of 2 per cent. of these elements, it would have been much better adapted to the cotton crop, for which it was sold.

Too little is known about the soil and crops we cultivate, and the farmer must work his brain if he expects the work of his hands to be successful. And he should demand in his fertilizers those elements of plant food in the right proportion to insure the best development of his crop.

F. J. MERRIAM.

Battle Hill, Ga.

The rural delivery of mail grows rapidly in popularity. One of the three Raleigh rural postmen here says that in September he landed on his route 2,273 pieces of mail, but that in October there were 3,773. Of the latter he took up 650 letters from people on the route. It is a good showing. The country people are delighted with the system.

FOR BROAD TIRES AND BETTER ROADS.

Two well established facts, as a large number of articles that have appeared in The Progressive Farmer have clearly demonstrated, are that the use of the broad tire is very profitable to the farmer, and that the narrow tire is the worst enemy of good roads. The Charlotte Observer tells us that the board of trustees of Charlotte township acted upon these principles at their recent meeting. Says the Observer: "The most important action of the board was the adoption of a resolution to petition the next legislature to pass a law requiring broad tires for wagons in Charlotte township, according to the plan submitted by Mr. D. P. Hutchison.

"The law would prohibit the sale of any but broad-tired wagons in this township, after a certain period. The old narrow-tired wagons could be sold, but the purchaser would be required to pay a small bonus for the use of the good roads. The proposed law would allow all owners of narrow-tired wagons to continue to use them until they should wear out, so there would be no hardship in that direction. It is the idea to begin the broad-tire movement just as the no-fence law was begun—first by townships, then by counties—and it is significant that so far, there is by no means as much opposition manifested toward this movement as there was against the no-fence law when it was first started. The good roads movement, which started in Mecklenburg county, has spread all over the State, and it is altogether probable that the broad-tire movement, starting in Charlotte township, will follow in the wake of the good roads all over the State."

MISTAKES WITH WHEAT.

I made an unfortunate mistake last year by sowing the larger part of my wheat land to a new variety with which I was not acquainted except in a hearsay way. The new wheat yielded an average of fifteen bushels per acre and about forty-nine pounds per bushel at mills, while my old kind of wheat, the kind we had been growing for years, made an average of forty bushels per acre and sixty pounds to the bushel. Now, I trust my brother farmers may profit by my experience and be careful about sowing seed of any variety about which they know nothing. The trouble with the new seed in my case was that it was not acclimated and I lost about \$25 thereby. Of course this isn't a large sum, but it will count up in a few years, if not averted.—W. C. Crook, Henderson Co., Tenn.

FROM A WAKE COUNTY FARMER.

"Clod-hopper" Writes of the One-crop System and of the Case of the Sheep vs. the Dog.

Correspondence of The Progressive Farmer.

I have just received my copy of The Progressive Farmer of Nov. 13, and will right now while I am thinking of it, write out a few hasty impressions of some of the articles.

Your correspondent from Wilson county warns us against going too heavily into cotton next year. True, we ought not to plant it recklessly, but things ought to be so arranged as to let us raise cotton very largely, while depending partially, at least, on the North and West where corn, pork and wheat can be raised more cheaply for these supplies. But as things now stand and with the prospects for a heavy crop next spring, W. C. D's suggestions are eminently sane.

We cotton raisers must study the problem of keeping up the soil fertility. Our cotton lands are being impoverished far more rapidly than the corn and wheat lands of the North and West. Yet, cotton is the least exhaustive staple crop grown, taking less fertility from the soil than corn, oats, wheat, or other grain. The lint and the oil are the only parts of the plant necessarily lost to the soil, removing less than three pounds per acre of nitrogen, potash and phosphoric acid, while the roots, stems, leaves, bolls and seeds contain more than fifty pounds, and all these, except the oil, may be returned to the soil. Crop rotation is one thing essential, and more grasses in crop rotation than heretofore.

Harry Farmer's talks are good. More of our farmers ought to write such letters. Yet we seem afraid of pen and paper, and I think that is the foundation reason for our poverty. We've paid too much to other people to do our pen and paper work for us—merchants, lawyers, and book, tree, and fertilizer agents, etc.

Mr. Jones' letter on curing bacon is first-class throughout, but it is not everybody that has the time for such careful work. The liquid extract of smoke does very good for me.

I read the report of Secretary Wilson on North Carolina's poor showing as to sheep. Sheep raising would be very profitable here were it not for the absence of protection furnished by law. Dogs are allowed to run at large, and the class of hounds kept are especially adapted to sheep killing. If the laws in regard to dogs were sufficiently strict, sheep raising would greatly increase and would prove very remunerative indeed, as the natural advantages are unsurpassed for a wool growing section. If the editor wants to encourage sheep breeding, let him work for an anti-dog law. He might keep standing what Edward Atkinson says:

"When the inhabitants of the upland cotton section of the Atlantic coast attain sufficient intelligence and power to suppress the yellow dog, of which it is related that 'every poor man keeps two and every d— poor man keeps four,' that section may become the centre of wool production of the world, while the sheep fed with the nitrogenous cow pea vine and the fat-producing cotton seed meal will renovate the slave stricken soils of these States and will bring them to the maximum production of food and of cotton and woolen fibres."

The best anti-dog law that I have heard of is Ohio's. It provides for a tax of \$1 per head on dogs valued at less than \$50; if over they are assessed with other stock. This poll tax is a fund to pay part or all the losses caused by dogs whose owners are unknown or insolvent. Losses are appraised by three land holders and returned to the county commissioners, who pay pro rata in December of each year, but the fund rarely equals the amount of damages. The assessor can't find nearly all the dogs and some more tell white lies. Again, any dog found alone off owners' premises may be killed by any one who has the nerve.

Whenever the farmers get to watching their own interests, we may get such a law in North Carolina. CLOD HOPPER.

Wake Co., N. C.

HARRY FARMER'S TALKS.

III.

Correspondence of The Progressive Farmer.

Harry Farmer does not like to see so many stumps in the fields. He has been made happy sitting by the fires in the old chimney filled with old stumps taken out of the fields during the previous winter, and thoroughly dried. These same stumps have warmed me, and others, too, (but I can't say we were happy) when cutting the grass, bushes and weeds from around them and never getting one cent's worth of crops for our labors for ten, or may be fifty, years, not to say a word about the plow points, back-bands and traces broken.

Gather all the cow peas you can. They are worth \$1 per bushel now. That means nearly \$2 next year when you want seed.

Push the pigs. Give them a variety of foods. They will eat more and thrive better. Harry has had fair success with pigs and always feeds them on corn, cow peas, sweet potatoes, collards, etc., when fattening them, finishing on the first named article. We will have something to say about pigs again.

Get ready for school as it will begin soon if not already open. Send your children every day. You think your lot has been rather hard in the battle of life, but it was not half as hard as your boy and girl will see without an education.

Now is a good time to subscribe to some good papers. You have some money and the papers will give you one or two months extra if you subscribe now. No farmer can succeed without reading some good agricultural papers. Every merchant has his market reports brought to him daily in his paper so that he can know exactly what to do. Take The Progressive Farmer and make farming a business.

You had better mark your seeds with a good label so that you will know what to plant next season. Corn, cotton and some garden seeds look alike, but sometimes there is a big difference in the yield. Harry Farmer has had some trouble along this line.

HARRY FARMER.

Columbus Co., N. C.

BETTER FARM IMPLEMENTS NEEDED.

We are always glad to receive a letter from Prof. J. B. Hunnicutt, and in addition to the articles he occasionally contributes to The Progressive Farmer, we often quote from his writings to other papers. In the last issue of the Southern Cultivator, he has a thoughtful letter on farm implements. Southern agriculture can make no material progress without improved farm implements and farm machinery, and we heartily endorse Mr. Hunnicutt's suggestions. He says:

The Southern farmer has reached the point where he must use more machinery. He cannot compete successfully with other farmers if he does not. Hand labor is too expensive if he can get it. But he cannot always command enough for it. It is getting scarcer and less satisfactory every year.

As the old ante-bellum labor passes from the farm, we find it more and more difficult to get the kind and quality of workers we wish.

The new labor wants to work fewer months and shorter hours, and demands higher pay.

Then again, he is not reliable. You cannot count on his carrying out his contract. He is expensive on account of the direct pay, and more expensive when you consider the indirect—the incidentals that you did not agree to give, but which are nevertheless gone from the farm.

IMPROVED IMPLEMENTS DO BETTER WORK.

The time has come when we must produce more per acre. The competition in prices grows heavier each year. Rapid transit makes it so easy for distant points to send competing articles that we must be prepared to price against any and every competitor. The only way to cheapen production is to produce more per acre, and decrease the cost of cultivation.

Good farm machinery will help to

do both of these. To do good plowing we must have good plows. One hand can do the plowing of three hands if we have the best plows. But at the same time he does so much more, he can do it so much better. A three or four-horse plow guided by one man can break more ground than the same number of horses each to a little single plow, and he can do much better plowing.

Then in the use of cultivators and harrows the same holds true. One man can do as much as two or three, and do it better. The weight of the plow or harrow helps to do better work.

Thus we see we can save the expense of several hands and have the soil better prepared.

A GREAT SAVING IN HARVESTING.

A good mower or reaper or harvester enables us to cut and cure and handle all hay and grain and even corn crops very much cheaper.

Not only is there a saving in the cost, but often the whole would be lost if we had to wait for the old way of hand-cutting and hand-binding and horse-threshing. A good deal can be promptly saved if we have good machines, but from storm or long-continued rain might be entirely lost or greatly damaged if we depend upon the old way.

Machines work cheaper than men. Human labor costs more than animal labor, and animal labor more than steam or electricity. We do not advise too great haste. This sometimes makes waste. But we do urge the use of all improved farm implements that have been tested and proven.

HELPS TO SAVE AND ENRICH THE SOIL.

We can soon stop all washing and wearing of our soils by using good plows, and when we do this the land not only holds its fertility, but actually grows richer from year to year while making crops all the while. We can even grow two crops a year on much of our farms, and this will improve the land still more rapidly.

Machinery has stopped the waste of cotton seed, and given them permanent value.

Machinery will soon stop the wasteful process of fodder-pulling and stalk-burning, but we will save the fodder and the stalks. This will enable us to grow very many more cattle, and they will add to our income and enrich our farms.

The use of machinery on the farm will tend to increase the intelligence of our farm labor. It will lighten the drudgery and heighten the profits of farming.

Now that we are getting better prices for our produce and our cattle, let us invest some of the proceeds in equipping our farms with better labor-saving machines. The question is no longer, "Can we afford to buy machinery for better farming?" but can we afford to do without? That is the question. We do not think you can. We think you are agreeing with us in this idea.

The Agricultural and Mechanical College for the Colored Race of Greensboro, N. C., has been awarded a silver medal on the institution's exhibit at the Paris Exposition. The worth of the college is fast becoming recognized by the colored people in North Carolina, who are patronizing it better than they have in the past. There are now 160 students at the institution, and this number is the extent of the dormitory accommodations.

In marketing potatoes great care should be taken in the assorting and I believe it pays to do it by hand. If the crop has very large tubers, as well as medium sized, two grades should be made, one of the larger, excluding all enormous sized, which are all right for exhibition, but not to eat, and the other of medium sized. In the medium-size grade, nothing smaller than a 5-ounce potato should be put. It never pays to try to work off small potatoes on the market; but feed them to the stock and make good meat. They should be put in clean sacks and each sack should weigh 100 pounds good and strong.—C. E. Flint.

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Live Stock.

RAISING YOUNG MEAT.

A Successful Stockman Who Has Made Money Supplying Markets, Discusses the Question.

Correspondence of The Progressive Farmer.

There is an undoubted demand for prime young beef and mutton made ready for the market under conditions that will produce rich, red, tender meat suitable for the consumers of choice goods. This meat is difficult to secure in any market, and it is always high-priced, for customers who can secure it are willing to pay extra for it. This meat cannot be raised without attention to what is needed. In the case of beef the cattle are not young calves, but animals that are brought to maturity rapidly and finished off perfectly. Old cattle finished off after their third or fourth year do not produce as desirable meat as the year and a half animal brought to maturity under good feeding and care. The proper time to finish off cattle for the fancy market is from one to two years old. The nearer we can get to the former the better, provided the animal has reached full maturity and weighs about as much as it ever will. It is a question of feeding and breeding so that the animal grows smoothly and rapidly from the time of its birth to the day it is sold for the fancy market.

Experience has shown that the most profitable age to finish off cattle is from twenty to twenty-four months. That applies to the average animal and breeder, and is a pretty safe rule to go by. But it is possible to finish off very fine cattle in eighteen, or even fifteen months, and obtain for them larger profits than those which reach maturity later. It is all a question of breed and feeding. Animals selected for this fancy work should be without blemish and indicate a strong, vigorous constitution from the start. If they possess these merits they will prove satisfactory at all times. They need good care from the start, and should be allowed to suck their mothers until they are ready for weaning, and then they should be fed as liberally as they can stand of highly concentrated food. We are not looking beyond the year and a half period and no matter what grave results forced feeding may have later in life the animals selected for this purpose should have it. The flesh is sure then to be rich and tender. When sucking the mothers must also be fed liberally on rich, concentrated foods.

The whole question of whether cattle raised in this way will be profitable depends largely upon the market one can send them to. They cannot be classed with ordinary cattle, but must seek a special market where fancy stock is in demand. In nearly every large city there are butchers who make a specialty of securing fine beef cattle. They have a line of customers who demand better meat than can be found in the ordinary cattle yards. One must put himself in touch with this side of the market to make the most of such a specialty.

C. W. JONES.

TO STOCK RAISERS IN WESTERN N. C. COUNTIES.

Correspondence of The Progressive Farmer.

The Board of Agriculture at its recent meeting made a ruling which will be of interest and importance to many of our readers who own or handle cattle.

The following district was established in accordance with chapter 367, Sec. 7, Sub. Sec. (3), Laws of 1899:

Beginning at the northeastern corner of Henderson county, and running with the east boundary lines of and so as to include Broad river, Crooked creek and Old Fort townships to the Catawba river, then eastward with said river through McDowell and Burke counties, and continuing to the southeast corner of Caldwell county, then north with the Caldwell county line to the Wilkes county line, then east with the Wilkes line to the southeastern corner of Wilkes county, then north

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