THE PROGRESSIVE FARMER

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Agriculture.

HARRY FARMER'S TALKS.

LXIV.

Correspondence of The Progressive Farmer.

This talk will consist of some news notes from Columbus county.

Farm work is very backward. Very little plowing done. Many farmers are expecting to plant large crops of tobacco. The cotton crop will be about the same or slightly decreased in acreage. The sales of fertilizer will be slightly in excess of last year. The spring oat crop will be larger, the winter crop having been killed out on many farms. Cattle and hogs seem to be in fair condition, considering the cold winter. The strawberry crop appears to be in good shape. A few blossoms are seen. The sale of mules and horses is not so large as it was the same date last year.

Excessive rains and hard cold weather has not only kept farmers back from their work, but have prevented peach and plum trees from blooming. It is not unusual to see both in bloom here in February.

Many farmers are rejoicing over the high prices obtained for eggs. Well, the eastern part of Columbus as well as the whole of Brunswick county escaped the big snow. While we were free to go anywhere without being hindered in the least; our neighbors twenty or thirty miles north and west of us were snow-bound.

Mary Jane has not done any gardening yet, but she is talking cabbage, etc., nowadays and, just as soon as the land will do to plow we will have to go in the garden and do some mighty hard work for a few hours. We plow very deep and harrow the land well, thus reducing the hand work a great deal. Our garden peas are generally planted very early in February, but the ground was frozen too hard this winter, so we will be late planting. We like to have some very early and some later. The little dwarf kinds are ready for the table the last of April. We always sow a few early radish for the children. (We often eat more of them than the children).

Mary Jane has been using commercial fertilizers for several years in the garden and thinks it a great addition to other manures. Fertilizers will push many vegetables forward and be the means of our having some nice vegetables two or three weeks ahead of the old style gardeners.

We hope no farmer who reads this will be too stingy to give his wife or daughter a plenty of the best manure and fertilizer for the garden so that he will have an abundance of nice vegetables during the whole year. We would sell our farm and leave home if we could not have a good garden to supply us with plenty of good vegetables, for we would save the dyspepsia and be too ill to live, almost. Besides all this, the garden goes a long way towards supporting our family. It is not often the case that a farm with a nice garden is sold under a mortgage.

HARRY FARMER.

Columbus Co., N. C.

TOBACCO RAISING UNDER SHADE.

Mr. Arthur Goodrich, in an article in the World's Work under the title "Agriculture Under Cloth," tells of the wonderful improvement in growing tobacco in Connecticut under conditions that protect and shelter the leaves. This gives promise of a new era in leaf culture. The process consists briefly in placing posts on the tobacco field and stretching from stringers of galvanized wire a cheesecloth covering, closing in the field above and on every side. The work costs about two hundred and fifty dollars an acre. The shade-grown tobacco sells for more than twice as much per pound as that grown outside. Mr. Goodrich thinks that with the duty to aid them, there is little reason why the Connecticut growers, with their armies of plants under cloth, cannot compete successfully with the tobacco raisers of Sumatra. We have been sending from $5,000,000 to $6,000,000 a year to Sumatra for wrapper tobacco.

SOME MISTAKES AS TO "FILLER" IN FERTILIZERS.

Dr. Kilgore Explains the Meaning of the Term—Some Material in Addition to the Potash, Phosphoric Acid and Nitrogen is Inevitable—Objectionable "Filler" is That Added Unnecessarily.

Correspondence of The Progressive Farmer.

I have been watching the discussions going on in THE PROGRESSIVE FARMER and Charlotte Observer by Mr. C. L. Evans and the State Chemist, Dr. Kilgore, on home-mixing of fertilizers. The farmer wants information along these lines; if it is true that the fillers of fertilizers are not worth any more, or haven't any more fertilizing properties than barn yard manure, stable manure with dirt or muck, then the farmer can furnish it cheaper than he can buy it. Every farm has all of these on it. If the filler has no more fertilizing value than these manures, he had better furnish it, for he will save manufacturing, freight, and hauling to his farm. The heaviest drain on the farmer is his filler. He is willing and able to pay for the chemicals, but cannot pay $20 per ton for guano and come out even.

The State Chemist, in his letter, says there is about .35 per cent. of phosphoric acid in a ton of barn yard manure, .40 per cent. of potash and .60 per cent. of ammonia. What the farmer desires to know is what chemicals and what per cent. will it take to make barn yard manure a complete fertilizer? Or, with stable manure, rich dirt, muck? The farmer has all of these, or part of them, on his farm that he can furnish at little cost. This is the kind of information the farmer desires. The State Chemist gives formulas for cottonseed meal. Cottonseed meal is too expensive for the farmer to use as a fertilizer. He had as well buy guano as cotton seed meal.

The farmer wants a cheap fertizer or a good fertilizer cheap, and by furnishing the body he can make a good fertilizer cheap. I take THE PROGRESSIVE FARMER and have been a subscriber ever since it was first published. I also take the Bulletin, but the farmers would like to have all the information they can possibly get at this time. J. Y. H.

Cleveland Co., N. C.

(*Answer by Dr. B. W. Kilgore, State Chemist.*)

Replying to the above letter in regard to fertilizers and compost, I will say that these materials are valuable as fertilizers mainly on account of the nitrogen (ammonia), phosphoric acid and potash they contain, and the greater the amount of these the greater will be the increase in crops to which they are applied, provided the three are well balanced or well suited to the needs of the crop and soil. While cottonseed meal and similar materials cost a great deal more than stable manure and similar substances entering into compost, they produce a far greater effect on crops than do the latter and cheaper materials.

The question of "filler" in fertilizers is one that does not seem to be well understood, and I offer the following explanation on this subject:

Ordinary acid phosphate contains usually 14 per cent. of phosphoric acid, the other 86 per cent. being water, sand, land plaster and other compounds of iron, magnesia and lime. This 86 per cent. is not "filler" in the sense in which that term is generally used. The acid phosphate has been made by treating a good grade of phosphate rock as dug from the ground with an equal weight of sulphuric acid, which rendered its phosphoric acid soluble and in condition to feed plants. No value is attached to anything except the phosphoric acid in the acid phosphate, but it is impossible to separate this 14 per cent. from the other materials without adding more to its cost than would be gained by the separation.

In like manner, cotton seed meal contains about 8 per cent. ammonia, 2½ per cent. available phosphoric acid, and 1½ per cent. available potash; the other 88 per cent. being made up of the various compounds produced by the cotton plant in its growth, but they are not "filler." As with the acid phosphate it would be impossible to separate the ammonia, phosphoric acid and potash from the other materials.

Kainit, one of the materials which furnishes potash in fertilizers, contains about 12⅓ per cent. potash, the rest of it being common salt, water and other compounds of lime, magnesia, etc. Here it would also cost more to separate the 12⅓ per cent. of potash from the other materials than would be gained by the separation

The bulk of these three materials are not the valuable portions of fertilizers, but they are not "filler." An illustration will show just what is meant by "filler:" An 8 2 2 fertilizer can be made of the following mixture:

Cottonseed meal	500 lbs.
Acid phosphate	1,050 "
Kainit	260 "
Filler—dirt	190 "
Total—one ton	2,000 "

The 190 pounds of dirt in this mixture is what is generally referred to as "filler." This is a low grade fertilizer and high grade ones are made by the use of materials which contain greater per centages of phosphoric acid, potash and ammonia. The Department of Agriculture has published in the January, 1900 Bulletin a description of these various materials, with explanation of how to mix them in proportions suited to different crops. The January, 1902, Bulletin, which has just been issued, also contains a number of formulas for mixing fertilizers for cotton and corn, as well as compost formulas, using stable manure, rich dirt and suitable fertilizer materials for balancing them and suiting them to the needs of different crops.

Copies of these two bulletins will be furnished to any resident of the State who applies for them.

PASQUOTANK FARM NOTES.

Correspondence of The Progressive Farmer.

The first half of February was very cold, and since the middle of the month it has been very rainy. Therefore very little plowing has been done.

There is one thing very certain: truck in this county will be two or three weeks later than usual, and I am afraid that means that we shall ship along with Norfolk. If so, I fear the results. Some peas were planted at the usual planting time and some have not been planted yet In my opinion those that are out of the ground are in the best condition. A few potatoes have been planted, but the bulk of the crop is out of the ground.

There are very few oats sown in this county, except for feeding purposes. Those sown last fall are looking very bad.

It is anticipated there will be a decrease in the cotton acreage in this county this year. I wonder how long it will be before our farmers will learn that a seven million bale crop will bring as much money generally, as an eleven million bale crop. I regret to say that the majority of the farmers here are poor, and the mode of farming, I believe, is responsible in a great measure for it. We know a man who has planted cotton on the same field for four successive years. He put his manure on this field, but the fourth year found it as poor as it was the first. The reason for this is very plain to any progressive farmer. On the other hand we know of another farmer who bought a farm five years ago and he has increased the value of it half. He did this by a simple rotation of crops; he told me that he never followed cotton with cotton. He plants right much truck and plants and sows the cow pea, the greatest friend that poor land has.

I will say that too few of our farmers read farm papers. In a canvass of part of our county last fall as a book agent, I was surprised to find so few farmers reading farm papers. My father has been a subscriber for THE PROGRESSIVE FARMER for many years, and I have enjoyed reading it very much. While the paper has always been very good, the improvement under the present management can be clearly seen.

JOHN T. BROTHERS.

Pasquotank Co., N. C.

THIRTY YEARS OF FARMING PROGRESS IN BURKE COUNTY.

A Correspondent Tells of the Changes in Wheat Growing and Wheat Threshing, Which Serves as an Illustration of the General Improvement Made.

Correspondence of The Progressive Farmer.

Seeing your request for letters regarding farm conditions in the several counties, I will write this bit of history and progress of 30 years in Burke County, N. C., which has occurred within my own knowledge and experience. It may be of interest to some of the readers of your valuable paper.

In the year 1871, at which time the writer was 15 years old, my father, Rev. P. A. Whitener, bought one-fourth interest in a threshing machine, known as the Mosteller thresher, one of the old fashioned kind called the ground hog machines after the mounted thresher and separators came into use. We started threshing in Upper Fork township, ten miles southeast of Morganton, on Upper South Fork river, in said county, I going along as a kind of scotch for many purposes, but being full of energy, soon filled the place of a hand, setting the machine and threshing. To ascertain if all things were in order was the first thing to do. First, we set the horse power, which not being mounted on wheels, was staked fast to the ground and contained a long stem to outside of circle of horse, where there was a ditch cut to make room for a 30-inch band wheel on said stem. Then came a long rope to connect power and thresher together, at right angle to the machine which was enclosed in a cloth canvas supported by stakes driven in the ground. On the outside of canvas in same direction with line of rope was the fan mill, where I worked furnishing power for the fan or measuring grain, which was my delight.

Threshing over several sections of Burke in all directions, setting down from two to five times per day, the crops being small, we threshed about 100 bushels per day and about 2,000 bushels per season, getting one-tenth as toll for threshing. We thought that fairly well at that age, coming in contact with only a few other machines of about the same make-up. There was then only one mounted separator thresher to my knowledge at that time; it was run by Mr. Joseph Pool, in Silver Creek Township.

But now comes the point. There has been great progress in this section since 1871 in many respects. So last year, 1901, there were six horse-power and one steam separator threshers in this (Morganton) township threshing from 5,000 to 20,000 bushels per machine. This is indeed great progress in wheat culture for one township in Burke County.

And yet there are other things advanced fully as much and some better, which I may mention at another time if this finds a place in the columns of your valuable paper. Perhaps I might make this more interesting by including the whole space of time between these dates mentioned, as I have had experience with wheat threshing most of the time from 1871 to 1886. But to make it as short as possible, it is only necessary to give the first and last years of the period in or to show the difference between 1871 to 1901.

R. C. WHITENER.

Burke Co., N. C.

The first recorded American silo for the storage of fodder was built in 1875 by a Dr. Manley Miles, who was led to make the experiment through favorable reports made by farmers in France who practiced this method of preserving fodder.

Monroe Journal: "I am told," said a town man yesterday, "that while the oat crop is giving signs of amounting to little, the wheat crop at present is promising, and the snow will help it. Wheat will be this year the first thing that farmers can get hold of to feed and they will feed it from the word go. Wheat at 65 or 75 cents a bushel will be used as long as it lasts, every time, in place of $1. corn."

Live Stock.

BEEF PRODUCTION IN THE SOUTH.

No 2 of State Veterinarian Butler's Letters to Progressive Farmer Readers—Why Beef Breeds Should be Used for Beef Production—About An "Ideal" Animal That Doesn't Exist.

Correspondence of The Progressive Farmer.

We must look further, then, for the reason of the beef steers greater value and consequent popularity Early maturity at once suggests itself, but, while it is an important quality, the difference between our beef and dairy breeds in this respect is not so great as some think.

We saw in last week's article that the beef steers reached a considerably higher weight at three years old than the scrubs, and dairy-bred steers, but as this weight was, pound for pound, produced at about the same cost it gave no great advantage. Although weight alone does not constitute maturity, it is a fact that the beef steer does mature earlier; that is, becomes fit to produce prime beef at a younger age than the scrub, but this quality is not by any means the chief cause of his popularity with packers, butchers and feeders.

To find wherein the beef steer excels the dairy-bred steer, we must go to

THE DRESSED CARCASSES.

Here we find a marked difference sufficient to sustain all the claims made by those who advocate the beef breeds for beef. In fact, the buyers know the superiority of the beef-bred steer's carcass so well that of the eighteen steers tested by the Iowa Experiment Station, the average price for Herefords, Shorthorns, and Angus, at Chicago, was $6.458 per hundred live weight, while the average price of the Holsteins and Jerseys was $4.75 per hundred pounds live weight. This is a difference of $1.708 per hundred pounds live weight, or about 36 per cent. in favor of the beef breeds.

This is a distinct and decided advantage for the beef steer and it will be interesting as well as instructive to inquire into the reasons why the buyers made this difference. These reasons can be clearly stated as follows: The available data from slaughter tests made by the various experiment stations show that

THE PROPORTION OF DRESSED WEIGHT TO GROSS WEIGHT

is decidedly higher in the beef-bred steer. Fifty-three Herefords, Shorthorns and Angus averaged 64 6 per cent. dressed weight to live weight, while eighteen Jerseys, Holsteins and natives averaged 61 5 per cent., a difference of 3.1 per cent. in favor of the beef breeds. This is probably a more favorable showing than the dairy-bred steers deserve, as the difference is about five per cent. in proportion of dressed carcass to gross weight.

Another point at which the beef steer has a decided advantage, as shown by the experiment stations is in the proportion of loose tallow to weight of dressed carcass. In the Shorthorns, Herefords and Angus above referred to the loose tallow averaged 13 2 per cent. of the dressed weight while in the Holsteins and Jerseys it averaged 18.35 per cent. In fact, the Hereford steers weighing 1,022 pounds only had 129 pounds of loose tallow, while the Jersey steers weighing 880 pounds, or 142 pounds less, had 165 pounds of loose tallow. In other words the Jerseys weighed 142 pounds less but had 36 pounds more loose tallow. Tallow is cheaper than lean meat, hence the superiority of the beef-bred steer.

The point where the beef steer most clearly shows his superiority is in the proportion of the valuable parts or cuts to the cheaper in his dressed carcass. The shoulder and neck cuts sell for from one-third to one-half that brought by the loin and other choice cuts of the body. It is in his ability to put flesh on his carcass at the right place, or to produce a higher per centage of these choice cuts that gives the beef-bred steer his

GREATER VALUE AS A BEEF PRODUCER

In speaking of the experiment made at the Iowa Experiment Station to t[illegible] comparative values of beef and dairy-bred steers for beef making, Prof. Curtis says:

"When these cattle went to market the Hereford commanded a price ten cents in advance of the highest quotations of any other cattle. He was one of a car load to command that price. His selling represented a premium of ten cents among 1,700 cattle. Both of these steers sold on their actual merits. The other steer went on the same market, and was obliged to sell $3.125 below the top quotations, a difference of $2 225; or, in other words, the Hereford brought exactly 49 per cent. more than the Jersey.

"When they were slaughtered the Hereford steer dressed 67 5 per cent. and the Jersey dressed 57.5 per cent. In other words, there was ten per cent. more net beef in the Hereford. I will say further, that the Jersey was as well finished as it was possible to make it: no amount of feeding could have made him any better for beef purposes than he was at the time he went to market; both steers were in good form.

"In addition to the ten per cent. more beef in one of them. when the slaughter test was made, the Jersey contained 190 pounds of loose fat; and, in addition to that 55 pounds of suet, and the carcass dressed 763 pounds. This steer (the Hereford) had a carcass that weighed over one hundred pounds more, or 888 pounds. He was well finished, and in that carcass we only found 90 pounds of tallow, as against 190 in the other, and 38 pounds suet as against 55. Tallow, at that time, was worth four cents a pound at wholesale, while choice steak was worth nineteen cents.

"Now, while these steers were rendering equal returns for a bushel of corn consumed in the feed-lot, while they were charging the feeder the same price for a pound of beef, in the market one of them commanded 49 per cent. more than the other, and this applied to the entire carcass.

"Now you can readily see why the buyer put that difference on these animals. It is their business to know—and they do know—what an animal will cut out on the block; but when the feeder does not recognize that difference he is obliged to bear the loss. These steers were both good representatives of their respective type and breed, and while this steer had that large quantity of internal tallow, he had not the development and finish in the high-priced cuts that the other had. He had fat deposited around his internal organs to the extent of one-third his entire weight, while there was not meat enough on his ribs and back to decently cover his bones. The buyers object to that class of cattle; for, while they are finished, in the sense of being fattened, they are not finished in the parts that produce the high priced beef."

This, in the light of other experiments, was rather an extreme case, but it serves to admirably illustrate the advantage the beef steer may possess over one of the non beef breeds.

I am frequently asked to name

THE BEST BEEF BREED FOR THE SOUTH.

I can only reply that any of the special beef breeds is good enough. Shorthorn, Angus or Hereford will do well with proper feed and care, but none will prove satisfactory without these. We hear much of the rustling qualities of the Hereford and the hardiness of the Angus, but neither of these is a good beef quality.

No animal is likely to make either good or the most profitable beef while withstanding hardships or rustling for something to eat. It is customary for a certain class of writers on live stock matters pertaining to the South to recommend this or that breed because of its ability to withstand abuse. The idea that animals which have the ability to withstand hardships are profitable is costing this State thousands of dollars each year. No animal can use food to keep its body warm or to furnish energy to hunt for food and at the same time convert it into flesh or milk. The business of the

[CONTINUED ON PAGE 8.]