THE PROGRESSIVE FARMER

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Agriculture.

HARRY FARMER'S TALK.

LIV.

Correspondence of The Progressive Farmer.

Mr. D L Gore's article of Nov 5th was calculated to put some of us to thinking along new lines. When we notice the difference between

THE CASH AND THE CREDIT SYSTEMS

we ought to study out some plan to avoid buying so much on time. This has been the ruin of our cotton growers in the South Some one is ready to say that it makes the merchants rich. This is a mistake. They have to pay high for their goods and there is always more or less loss. Many farmers get more off their farms than many country merchants make who seem to do a large business. If you want to see how many make money at this business, just notice and see the number that fail. If five per cent succeed, ninety-five per cent. will fail So that the number is too small for any one to base any hopes of making wealth that way. It not only ruins the merchants who engage in the business, but it will ruin seventy-five per cent. of the farmers.

Many farmers throw away more on their farms than some merchants require to live on. When you count the cost of what you use when you make it at home, it will not appear very large, but just try to buy it on 6 to 8 months' time and see what it would amount to. Let us itemize a few articles and compare

THE DIFFERENCE IN PRICE

and then we can draw our own conclusions:

	Cash.	Credit
Meat	09	12½
Corn	75	1 25
Lard	10	15
Flour	4 50	6.50
Soap	03½	05
Lye	08⅓	10
Matches	10	12
Coffee	10	15
Sugar	06	08⅓
Guano	19 00	25 00
Clothing	2.50	5 00
Notions	1 00	3 00

And many other things in proportion. Now we figure on these prices and find that we pay about forty per cent Now if we buy to the amount of $140 and only make cotton enough to pay $106, we are in debt $34, and must either sell our corn or something else to pay the debt or get the merchant to carry it over to next year, which is frequently done. Suppose we do this for three years; then we must give a mortgage on our land. After this comes the sale of our home, and then we become renters or move away to work at something else for a living. Now if we are compelled to have help, it is far

BETTER TO BORROW MONEY

and pay the interest than to buy goods at high prices on crop time When you borrow money you should be very careful how you buy. Do not buy any more than you can possibly help. In some parts of Georgia the farmers borrow money at eight per cent. per annum to buy fertilizers and supplies. The banks furnish the money, but do not lend directly the farmers, but have some of the directors to take the farmers' notes secured by mortgage and deposit these in the banks as collateral. The farmers pay the cost of executing the papers, which never exceeds one dollar, and often not more than fifty cents. It is said that the farmers who follow this plan are very prosperous.

If changing the laws of the State will help farmers, then let us have the change. While farmers are in trouble on account of short crops, it is a good time to do some hard thinking and prepare for the future.

HARRY FARMER.

Columbus Co., N. C.

We have received from Messrs. Latham, Alexander & Co., Bankers and Cotton Commission Merchants, 16 and 18 Wall street, New York, a copy of their "Cotton Movement and Fluctuations, 1896 to 1901." This booklet is issued in most attractive style, and contains much matter of value to those interested in cotton statistics.

THE SMUTS AND THE RUSTS.

Correspondence of The Progressive Farmer.

Among the higher groups of fungi are the smuts and rusts. These are of importance to every farmer. No fungus can manufacture starch out of carbonic acid gas and water, but must live on the plant, or substances, which would develop the growth and maturity of the plant upon which it grows.

THE SMUTS.

Smuts are a well-known group of fungi. Every one is familiar with the smuts of corn, wheat and oats Their appearance on corn are great distorted kernels, many times as large as the ordinary ones, composed of smut threads and a blacks mass of smut spores. Other kinds are found upon wheat and oats.

Generally the smut spores develop themselves in the seed areas of the plants, and substitute for the seed their own fruit bodies. Hence, the smut fruit body of the corn takes the enlarged corn kernel and the stinking smuts of wheat and oats fill the hull of the grain with a mass of smut spores.

HOW WHEAT SMUT SPREADS

If the hull of the wheat grain is broken while threshing or handling in any way, the smut spores are liberated and fall upon the ends of other uninfected kernels. There they are caught and held by the little hairs on the germinal end; and when the wheat is sown and germinated the smut spores germinate also and their delicate threads grow in the tissues of the wheat plant keeping pace with the host as it grows higher and higher into the air. When the wheat flowers and the fruit begins to appear the smut filaments begin to divide themselves into spore cells so that finally they are filled with thousands of smut spores. This process may then continue from one year to another.

HOW IT IS PREVENTED.

On account of the habits of the smut, it is a disease of the grain which may be eradicated by soaking the wheat in bluestone water or by soaking for five minutes in water of 132 degrees Fahrenheit. By such means the spores of the smut are killed, but on account of the thick hull of the wheat kernel it is not injured. Another fungus very injurious to the wheat plant is

RUST

The wheat rust is a very remarkable fungus from its singular custom of changing its habitation from one plant to another. Not only does it change its place of abode, but it changes its form and structure as well, so that it is impossible to tell it after it has migrated to one of the other plants upon which it has acquired the habit of developing itself, except by those who have given it careful study. There are three kinds of rust that grow on wheat The spring rust, the red or "summer" rust, and black or "autumn" rust The spores of the spring rust grow on barberry leaves, and here spores are formed which are carried by the winds to the wheat fields

Rust is, by far, the most destructive or all wheat diseases and it is apparent that such a disease offers difficulties to the economic farmer desirous of protecting his crop, far more than those of the smut. Therefore the best plan to eradicate wheat rust is by the development of so called "rust proof" varieties While smut is the easiest of wheat diseases to control, rust is the most difficult.

J C BEAVERS.

A. & M. College, West Raleigh, N. C.

In the new apiculture, the length of the bees' tongues is of importance. The longer the tongue the greater is the honey-gathering capacity, and a new French apparatus, the glassometer, is designed to aid the apiarist who, by judicious selection, seeks to develop a long-tongued race The apparatus is simply a glass vessel for syrup, with a lid having numerous perforations, and a floating scale to show the height of the liquid when the bees just reach it through the holes. It is estimated that the ordinary bee can draw sweets from a depth of a quarter of an inch, and that selection can increase the range a twenty-fifth of an inch.—E. R. Chadbourn.

COTTON RAISING AGAINST TOBACCO.

Facts and Figures Given to Show Which is the Best Paying Crop for the Farmer.

The relative merit of the cotton and tobacco culture is an interesting question just now, as it has been for some years in some sections Cotton has long been regarded as king, but tobacco is making inroads in the king's territory. For instance in Wilson, Wayne and Lenoir counties, which are in the cotton belt, large numbers of farmers have in the last few years turned their attention to tobacco and in Goldsboro, Kinston and Wilson market places for the weed have sprung up and large quantities of the product are sold there.

In a letter published a few days ago Mr. C. A. Bray, a tobacconist of Greensboro, makes some comparative figures which are given here with as worth considering. Mr Bray quotes government statistics, as recently issued, which show the following facts:

The average yield of cotton per acre for the past ten years is 200 pounds for the whole United States. The highest estimate we have seen for the year 1901 is 190 pounds per acre This State is far below the average as a cotton producing State. From the statistics and the most reliable information we are able to get the average yield of cotton in North Carolina for the year 1901 will be 141⅓ pounds per acre, which at 7⅓ cents, the price paid for the cotton in question, though the price in Charlotte was only 7 3-10 cents on that day the above average of 141⅓ pounds at 7⅓ cents would yield the farmer the enormous sum of $10 per acre.

The average yield of tobacco per acre is 525 pounds for the State of North Carolina in the year 1901, the worst tobacco year we have had since 1889 The average price paid on this market for the month of November has been $8 88 per hundred pounds, and we are getting the poorest tobacco, as the farmers do not care to handle their good tobacco this dry weather. At this average, an acre of tobacco will bring the farmer $46 62, which is $36 02 or 340 per cent. better than cotton.

Then, speaking for his section of the State, Mr. Bray says:

"This is a very poor cotton section, and will therefore fall below the average yield of the State, while we are in the heart of the best tobacco-growing section and can produce far above the State's average yield per acre on this staple. Furthermore, the average price on this market will be higher from now on, as is the custom of the farmers to market their poorest tobacco first, which is especially true this year, for they do not want to break up their good tobacco trying to handle it this dry weather. Cotton at $10.60 per acre, tobacco at $46 62 per acre. Which will you raise? It does not take a Solomon to decide this question.

"If cotton is more profitable to the grower than tobacco, why did farmers in the very heart of the cotton belt in North and South Carolina abandon it and turn their attention to tobacco and that at a time when tobacco was the lowest it has been for forty years?"

These statements of facts are submitted for the consideration of Post readers in this and other sections of the State. Mr. Bray makes the matter very plain from his viewpoint, and it would seem that it is not easily controverted While the farmers are working out and settling their part of the problem, would it not be well for the business men of Raleigh to seriously consider the matter of re establishing a tobacco market in this city?—Raleigh Post.

Roanoke News: In talking with farmers in various parts of Halifax county we find that while the cotton crop is short that the peanut crop is still shorter. Mr. Paul Garrett, who makes the best of wines, and who is also one of the largest growers of peanuts in the county, says that he planted twice as many acres this year as he did last year, and that he did not make as many peanuts on the double acreage as he gathered last year.

Live Stock.

THE LIVE STOCK INDUSTRY IN THE SOUTH.

II

Correspondence of The Progressive Farmer.

Recognizing then the close relation existing between crop production and animal husbandry, what line of live stock shall we take up? It seems to me that any line would prove successful

Here they are: dairy husbandry, sheep husbandry, beef raising, swine and mules. One or more of these can be followed. The raising of hogs goes hand in hand with either beef or butter production.

The raising of sheep for wool and mutton, always brings good profits for the owner if properly handled. Our conditions are ideal for hot-house lambs. We are receiving from the North from $25,000 to $50,000 worth of butter each year. The same is true of beef, mutton and pork No

OPPORTUNITY FOR THE LIVE STOCK INDUSTRY

here in the South, you say? I answer this is the best section in the Union for the production of these materials. The North is unable to compete with us if we really set about to grasp the opportunities before us. We sell our cotton seed meal to Northern farmers, who in turn feed it to dairy cows and make butter to return to us. They get the rich fertility in the meal, worth we will say from $15 to $20 each ton, in manure, and we get back their butter, with forty eight cents' worth of fertility for each ton. No wonder our soils are becoming depleted! Let us feed this food at home to our own stock and keep the fertility on our own farms and we will ship the butter, because we can make it cheaper, for we have the meal and cow peas and clover and corn ensilage right at our doors. Our Southern-grown food stuffs will make just as good beef as anything that can be produced in Iowa, Kansas, or Illinois, if we but build up our herds. And then

LOOK AT MULES.

What profit one can make in them! Recently we were obliged to purchase a pair of mules for our College. We spent some little time time in getting what we wanted. We did the best we could and paid $375. The man who raised those mules made good money, I am sure. The ease that corn stover and cow peas can be raised, solve the whole problem, if one but sets about it. At the prices quoted there is a clear profit of $100 for each mule raised.

I could take up much space in suggesting possibilities in live stock raising. But it is not needed. We should bear in mind, however, that grain crops exhaust the soil, but the soil can be maintained through the growing of leguminous forage crops, and feeding these and grains to live stock. We urge the reading farmer to bear this point well in mind:

The greatest profit results from feeding these grains and forage crops to animals, rather than selling them direct.

A ton of cow pea hay may be sold for $10 or $12 per ton, yet if this ton of cow pea hay were sold through the cow, the result would be two or three times the commercial value of the hay.

BRANCHES OF STOCK RAISING.

To bring this question of live stock properly before the reader, we will consider it under the following heads:

1. The management of dairy stock.
2. The management of beef cattle.
3. The management of swine.
4. The management of sheep.
5. Possibilities in raising mules.

The matter of first importance is the question of breeding stock for the production of profitable animals. We can see by the following that our dairy stock is not what it should be. In another article the writer showed by an actual case of a cow consuming about $40 of corn ensilage, corn stover, hay and grain and from that she made $156 worth of butter. I would like to know of any cotton machine worth $75, clearing its owner in every sense a profit like that; a machine taking $50 of raw material and making that into a finished product valued at three times what it was before, and then returning to its owner a refuse worth nearly the value of the raw material at the beginning.

NEW YORK VS. NORTH CAROLINA FOR DAIRYING.

But we in the South are not doing this. Our dairy cattle are not making any profit for their owners These machines are worthless. It costs to keep them going the full amount obtained by the sale of the product they make. To prove my point, I will take the results from the United States Census.

In 1890, North Carolina had 223,416 milch cows which produced 468,630,652 pounds of milk, or an average for each cow of 2,097 pounds. The same year the State of New York, with a million acres less in farms, had 1,440 230 milk cows which produced 5 443,296,540 pounds of milk, or an average for each milk cow of 3,779 pounds. Without making any comparisons for acreage, or sections of the country, or kinds of feed, the cows of our State produced but half the quantity of milk as those of New York. The average cow of North Carolina with her 2,079 pounds of milk produced $62 37 from a commercial standpoint; the average cow of New York with her 3,779 pounds of milk produced milk worth $113 37, a difference of $51 in favor of the New York cow, as a manufacturing machine.

This is not a matter of guess work. It is not a matter of a few cows, but the actual facts dealing with every milch cow in these two States. We look to New York as a great, wealthy, and prosperous State; she is so because the farmers, through

EDUCATION AND SKILL AND SCIENCE

are making their herds and flocks superior to other States. Let us get to work. Here in the South—God's own blest land, with dairy foods in abundance, an a climate and enviroments unsurpassed by any other State, we should develop and breed up our herds, so as not to have cows with a small yearly yield of 2,079 pounds, but twice that amount.

Let us see then in a future article how we can get more productive dairy cows.

CHARLES W. BURKETT.

N. C. Experiment Station.

CURING HAMS AND SHOULDERS.

Correspondence of The Progressive Farmer.

I have a request from a farmer's wife to please send a good Kentucky recipe for curing hams and shoulders, as they are famous for their excellence. I send a "blue grass" farmer's method who is noted for his delightful hams and sweet bacon. As we all know how very different hams taste in different homes, it is well to take note of the successful ones. He says: "I have found the use of powdered borax on meat the very best way to keep skippers and other insects from it. When the meat is taken up to be dried, I wash it in clean water and as hot as I can bear it, and while damp sprinkle powdered borax all over the flesh side of every piece, and I need fear no farther from insects, although my hams and shoulders hang in the smoke house till cured without even a sack on them.

"If the summer is very dry, I rewash and put more borax on in July and August. The taste of the meat is not injured. I have used this for years; it is inexpensive and preserves the meat from taint. Each ham may be tied up in a canvass or paper bag, or they may be left hanging in a cool, dry place, and will be found in excellent condition."

When wanted for use, the meat is sweet and juicy. Shoulders may be treated in the same way.

MRS. S. H.

Scott Co., Ky.

The Wisconsin station has been carrying on an exhustive test to determine the effect of salt in butter upon the water content. Briefly their conclusions are that unsalted butter while having the appearance of being dry really contains about three per cent more water than that salted. In the butter that was worked twice, the difference was even greater.

SHEEP IN THE SOUTH.

XXIII.

"Spring Lamb," Its Importance and Preparation for it—Blooded Rams to be Used and Have Lambs Commence Coming Nov. 1st—Feeding and Management of the Lambs—Sheep Habit of Early Lambing—Sheep Husbandry Profitable in the South.

Correspondence of The Progressive Farmer.

What is termed "spring lamb" where it is best known is admitted to be the most healthful and dainty dish of meat that is prepared from any of our domestic animals, and for this reason I think the subject worthy of still further discussion. I am persuaded in this also from the fact that there is certainly no part of the nation so well adapted to the production of this meat as the South, and particularly the Piedmont region and Gulf States.

If the mode of operating the business should once become familiar to the people, it would soon assume such importance as to materially change the agricultural system of the South.

To prepare a farm for this work, one should commence the first of August to plow ground and sow rye to the amount of one acre for every five ewes bred for early lambs. By first part of September sow as much more land to rye and winter oats; both sowings pretty thick. Then the first part of these months sow an acre of vetch or rape for every 25 ewes and grow a bushel of beets, turnips or still better, of sweet potatoes for every ewe bred.

An acre of Bermuda grass pasture saved and grown strongly by October first for every ten ewes will constitute a most useful and very reliable food.

One hundred and fifty pounds of cotton seed meal for each ewe, (or better 150 pounds of wheat bran, corn and cotton seed meal, equal parts mixed) will be sufficient grain feed. If it is a good growing fall and open winter, perhaps not more than one half of this provision will be consumed but on the average, or in a drouthy time, that much may be needed; and in the best of seasons it can well be consumed by other sheep or stock.

In growing these lambs or in fattening any sheep for market one must keep in mind that it is unprofitable and really will not do to "run short of feed" for a week or even a day because the lambs or sheep must have all they will eat up clean all the time, every day.

So far as the ewes are concerned, they should be in hand and preparations commenced in May by housing them every night and feeding some dry food that they will eat, and about one gill of corn or its equivalent in cotton seed meal each evening and increasing to half a pint by June 1st until they are all served by the ram, which service should commence first week in June so as to have lambs commence coming November 1st. In this service extra blooded rams should be used and they should be "stood" as recommended in previous chapter: one ram being sufficient for an hundred to an hundred and fifty ewes. Care must be had to keep the ewes in good thriving condition from this breeding period up to their lambing time and then give plenty of milk producing food till the lambs are marketed.

About a week before lambing they should get gradually onto the rye or other green pasture, if they have not been on it, so as to provide an abundant flow of milk. It can be increased and the condition kept up by housing at night and feeding as follows: Shred the corn fodder and cut the pea vines or other hay very short and feed at the rate of one to three pounds of this "roughness" to each ewe of 100 pounds weight per day or one-quarter to one-half pound of cotton seed, corn meal and wheat bran mixed equally, owing to amount of green pasture had and as to how heartily they eat. They should have all the dry feed they will eat up clean, besides all the green pasture they will take regularly every day, being very careful not be irregular with the green food or in any other way have them scour.

[CONTINUED ON PAGE 8.]