

# PROGRESSIVE FARMER

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

Vol. 7.

Raleigh, N. C., May 6, 1902.

No. 13

## Agriculture.

### HOW WE MAY INCREASE SOIL FERTILITY

Mistakes That We Have Made in Commercial Fertilizer Matters—We Must Co-Operate With Nature.

There is, perhaps, no question of greater importance to the farmers of our State than that of soil fertility.

The fertility of the soil would remain practically unchanged if all the ingredients removed in the various farm products were restored to the land. Many farmers of this State have tried to do this by the use of commercial fertilizers, but instead of improving the soil they have greatly depleted it. Commercial fertilizers have been one of the greatest injuries the farmers have ever had. They have planted but one crop, mainly cotton, and used commercial fertilizers to keep this crop up to the maximum until the soil has, by the growing of only one crop, become hard and caked and devoid of humus, the most needed element for plant growth. The land falls longer to produce paying crops and is considered "worn out."

### COMMERCIAL FERTILIZERS ALONE INADEQUATE.

Such has been the method of farming through the middle section of the State for many years. Such lands as these cannot be brought up to a state of productivity by the use of commercial fertilizers alone. And even if it could be done it would be so expensive that the average farmer would have to leave his farm unimproved, and go to the town or city to work in a factory, because he has not the money with which to purchase such a vast amount of fertilizers. It is impossible for a man to bring up the soil of a worn-out cotton field to produce profitable crops by the use of commercial fertilizers alone, because in most cases they seek to make all the plant food available. This soon robs the soil of its fertility and puts it in a barren and unprofitable state.

### GROW YOUR OWN NITROGEN.

Nitrogen is by far the most costly of fertilizer ingredients, and yet it can be secured cheaper than any other if proper rotation of crops is practiced. This may be done by putting crimson clover or cow peas in the crop rotation. Either of these crops will add much nitrogen to the soil through the tubercles on the plant roots; but the cow pea is preferable, as it makes a rank growth even if put on poor land, but much more will be added if the plants are ploughed under green. This, however, is not advised where the farmer has a sufficient number of cattle to eat his hay, for the excrement would contain most of the fertilizing value of the hay and at the same time make a finished product out of the hay which always brings the greater profit.

### CROP ROTATION.

These farmers must learn, sooner or later, that soil fertility cannot be maintained, if the land is planted in the same crop each year, and receives nothing but commercial fertilizers. Why not rotate crops and raise beef and dairy cattle and swine and quit raising all cotton, or all of any other one thing?

### LEARN A LESSON FROM NATURE.

Look how nature builds up the worn-out fields! The first thing she does is to cover the soil with some plant growth to protect it from the direct light of the sun and make it less susceptible to washing away. Then look how nature continues to improve the soil, by growing the plant and then letting it die and another taking its place, and each succeeding generation going through the same cycle until the land is covered with decaying vegetable matter, which slowly brings back the soil's fertility.

Then, why may not every farmer in North Carolina assist nature in bringing back the soil fertility to the worn and unproductive fields? By the use of the cheaper commercial fertilizers—potash and phosphoric acid—applied to some leguminous crop, such as cow

peas, it can be done at a small cost.

Farmers, let's wake up and put forth an effort to make North Carolina one of the leading States in the Union in agriculture. North Carolina's soils are as good as those of any other State and need only to be treated in a rational and up-to-date manner to make them yield profitable returns. J. C. BEAVERS, A. and M. College, West Raleigh, N. C.

### HARRY FARMER'S TALKS.

#### LXXXII

Boys, don't loaf. This habit does you more harm than you might think. It is necessary some times for men to remain in a public place to attend to business, but the boy who stands around a postoffice or other public place with nothing to do all day will lose both financially and morally. The day is lost when nothing is learned or nothing earned.

### THE EVILS OF LOAFING.

Perhaps all the boy hears is some smutty jokes which do him harm, or some tattling news of the neighborhood that he would be a better citizen not to know; or he may hear of some murder or other criminal news which some fellows delight in discussing, making heroes which to imitate leads to the State prison or gallows with a whole family name disgraced. Boys who make a practice of loafing grow up to be men loafers which no business man wants except to do hand labor. Bad habits are formed. You will hear profane swearing and see men drinking. Thus the boy commences to smoke the deadly cigarette, to imitate some one else whom he regards as being a worthy example. Then you will want far more than your purse is able to pay for. Perhaps mother or sister is home doing the work that you ought to do, or it may be father is toiling hard for your support.

### THE VALUE OF THE TIME LOST.

Now let us make a little calculation, look at it from the business man's standpoint. There are fifty-two weeks in a year. If you idle or loaf one day in each week you lose just two months in the year. Twenty-six days are regarded as a working month; you see you have lost one-sixth of the year. If you begin at the early age of ten and follow it for eleven years or until you are twenty-one, you have just lost two-thirds of the time that Harry Farmer spent at school. Suppose you just averaged five dollars per month at work during that time, you would be one hundred and ten dollars better off. This much money saved and placed in bank every year for eleven years, or until you became a man, would pay your way one year at college. Well, suppose we spent the time studying, we would have over two years' schooling, which would give some men a good start towards an education.

### WHAT KIND OF MEN DO LOAFING BOYS MAKE?

Notice the successful men in every community and see if any of these were loafers; if not, decide at once that you will try to improve all your spare time and never become a loafer. If you have no work to do, employ your time reading good books or papers. It takes long years of hard study to get an education just as it takes the saving of nickels and dimes to make a large sum of money. Little spare moments carefully saved by reading useful books and papers will count and surprise those who have never tried it. How often do we see men and boys spend all day Saturdays and some times other week days in pure idleness! Life is too short to throw away so much time.

### THE FARMER'S BEST CROP.

As we said in a former talk, it is best to take a day off occasionally, but it will not do to make it a regular habit to throw away a day or two every week. Men who do it are nearly always the ones who are the first to cry out hard times. This may seem a little out of place, but a good crop of well-trained boys is the best thing that is grown on the farm. HARRY FARMER, Columbus Co., N. C.

### FARMING IN OKLAHOMA.

A Tar Heel Who Has Settled in the New Territory Tells of Its Soil, Climate, Products and Inhabitants.

I will try and blow old Greer County, Oklahoma, a bit and tell what I know and what the old "nesters" (as they are called by cattlemen) know about the country.

I will say to start with that Oklahoma is the best farming country that I have seen west of the Mississippi River, and I have seen a good portion of the best farming land of Texas. Corn, cotton, and all the small grains do unusually well here. We have about three different kinds of land—a black light land, the red sandy land, and the river bottom sandy land. The bottom land is a sub-irrigated land and is as rich as can be. A very little rain makes fair crops on this if it is worked well.

About all the "government land" is taken up and it is advancing in price at a rapid rate. People are coming in fast and buying, the price being from ten to twenty dollars per acre, according to location.

We are having lots of rain now, and the indications are good for the best crop this year that we have had in several years. If we could have rain here like you have in North Carolina, farmers could soon get rich.

One great feature of this country is that the farmers do not use any fertilizer on their farms as the land is already as rich as can be, and with the improved labor-saving machinery that we have, farming is a pleasure compared with farming in North Carolina, for we have no stumps nor rocks to contend with. To see the corn and cotton when it is about half leg high and the land being so level is a beautiful sight.

The year 1901 was considered here very dry. The last rain that fell was on the 29th of May, and we had no more of any importance until March 10th, 1902. But in spite of this dry spell, corn made in some places fifty bushels an acre, and thirty bushels an acre was common. Cotton yielded on an average one-third of a bale per acre. Some one said that in the fall and winter of 1901 when the cattle would see a cloud passing over they walked under it and bawled for water—but I never saw this. The people of this, Greer County, are made up of a poor class, or they were when they came, and they came to get cheap homes. So now they are in good circumstances and contented and they are making money.

A great drawback has been that this part of the country was so far from markets, but that will soon be overcome for two railroads are being built through the county and that is causing land to go up. Health is generally good. Water is pretty fair, although some of it is very gypsy. Fruit does well and everything that has been tried is a success.

We have a good school system. The school term is five months in the year. The people of each precinct tax themselves so much as they see fit for school money. The school buildings are first class.

This is a fine country for a man with a family—good schools, churches and good health, and if he is a farmer he will have plenty of work to do and can work nearly all the time, for there is not much bad weather.

The country is laid off in sections of a mile square, there being no roads only on section lines. Of course every farmer does not own a section; some own a quarter, some a half, and some a whole section. The best and smoothest roads are here that I have ever seen—very fine for driving or cycling, level and firm.

Greer Co., Okla.

The House of Representatives has taken up the Agricultural Appropriation bill which carries an appropriation of \$5,158,570, an increase of \$576,150 over the current law. The largest increases were those for the Weather Bureau and the Bureau of Plant Industry, each about \$100,000.

### PLANTING AND FERTILIZING.

Correspondence of The Progressive Farmer.

All lands should be prepared in keeping with natural growth of the plant to be grown. One of my reasons for bedding or ridging land for Lima beans is to keep the fruitage from the water. Also bush snap beans, parsnips, carrots and beets want depth of soil below, as does the salsify or oyster plant. The preparation of land and the manuring is not known by all persons. An advanced lady wanted to know why her snap beans did so badly; a furrow was opened and much rich stable manure was filled in and some soil thrown on, and when the dry weather set in the vines died. Plant your beans in good soil and put the manure on top and it acts as a mulching as well. So with ashes and rough manure.

After cutting my Irish potatoes, I put on one pound of sulphur to the bushel and rolled them well so as to get the sulphur on all the pieces of potato. The potato is a heavy feeder and must have its food in short order. One man said to me, "My land is too rich now for potatoes." Land may be rich and yet it may be in an inert condition for the fruitage. I have seen cotton stalks grow to an immense height and but little fruit. So when we learn to grow the fruit as well as the vine or weed, then it is that we are getting our business well in hand. I have never had land too rich for me to grow Irish or sweet potatoes, but have had it too poor.

It is often said that too much guano causes firing in dry weather. Crops are oftener fired for want of fertilizer than by too much. All fertilizers should be well stirred in the furrow, so the plant will not feed it all up at once.

R. R. MOORE.

Gulford Co., N. C.

The continued high prices asked by the beef trust for its products has at last resulted in a decision by the Attorney General to prosecute the combination which he states is being operated contrary to the laws of the United States.

### THE COTTON BOLL WORM.

Entomologist Sherman's Plan for Getting Rid of the Pest.

Now is the time to cope with the boll-worm, which did so much damage to cotton in the Southern tier of counties of North Carolina last year. This worm is exactly the same species as the one which attacks green corn in the ear, and it is by using corn than that we fight the worm.

Plant occasional rows of very early sweet corn through the cotton field, so that it shall be in tender ear at the time the bolls are forming on the cotton. The parent moths of the boll worm will by this means be induced to deposit the eggs on the corn and much of the cotton will be spared.

When the cotton bolls are well formed and the ears of corn have become badly infested with the worms, the corn should be cut and fed to cattle or hogs and the worms are thus destroyed.

This method was explained last summer in a letter to Mr. N. S. Alexander, near Charlotte, and the letter was published in the Observer, but it seems well to reprint the advice at this time.—Franklin Sherman, Jr., in Charlotte Observer.

Some statistician has compiled figures on the consumption of oleomargarine in the United States. According to these figures as presented to Congress during the discussion of the "Oleo Bill" 107,045,028 pounds were placed on the market in 1900, a little less than the consumption to day. This amount is sufficient to give over a pound each to each man, woman and child under the protection of the American flag, including the Filipinos. The revenue collected as tax on oleo in 1900 amounted to \$2,545,785.18. Since 1886 more than 859,000,000 pounds of oleomargarine have been accounted for by the internal revenue office, on which more than \$21,000,000 was paid as revenue.—Guy E. Mitchell.

## Live Stock.

### SOME INQUIRIES REGARDING COWS, MANURES AND GRASSES.

Correspondence of The Progressive Farmer.

I am in need of some information and don't know of a better place than your office to get it. So I will proceed to ask questions. 1st. Since turning my cows on rye, they have fallen off considerably in butter, but have increased in milk, not seeming anxious for any other feed. Have not been feeding anything. Should I have continued feeding bran and cotton seed meal? Would it be a good idea to put some wheat straw in racks at night?

2d. Is it a good plan to stand cows in stanchion stalls, well ventilated, with shed on north side of barn at night during the warm weather? I am anxious to save all the manure possible, but want all the milk and butter that I can get.

3d. I am saving the liquid manure from the cows. Have been using it instead of nitrate of soda around early cabbage. Can I depend on it to take place of nitrate of soda, and how much is it worth say per gallon? Will it do poured around snap beans?

4th. Can you tell me what grasses to use for permanent pasture for cows? My land is red "push" clay land. What do you think of Johnson grass? Would it be good to graze? J. D. SLEDGE, Rockingham Co., N. C.

Answer by Dr. C. W. Burkett, of the N. C. A. & M. College:

1st. In turning cows to rye pasture, there is not enough protein to keep up the regular butter yield. If our correspondent will continue the use of from one to four pounds of cotton seed meal for his best milkers, I think he will be able to get the usual quantity of butter. At the College farm for two weeks past we have been pasturing rye, but have continued the use of meal in connection, and our cattle have not only kept up their regular flow of milk, but have increased a trifle. From six to ten pounds of cow pea hay daily will be good practice, and if this is done part of the meal can be left off. The wheat straw will be of little value; in fact, there will be difficulty in getting cattle to eat the same when on rye pasture. Wheat straw contains so little protein it will be of little value in making butter.

2d. There is no objection in tying up cattle if the stable is well ventilated. I think, however, it is best to give them as much liberty as possible so as to keep them in good vigorous health. This always pays and is an important consideration in building up a good dairy herd. We like the idea of giving dairy cows a little lot or run for the night. The manure is thus saved and the lot can be plowed up and put to corn or peas or rape that can be cut or fed off for summer feeding or fall feeding. As soon as one lot is planted turn into another, and so on.

3d. The urine is the most valuable part of the excrements. At current prices it is worth for nitrogen, potash and the little phosphoric acid in it \$4.76 per ton. The nitrogen alone is worth \$3.56 per ton. On the basis of nitrate of soda a ton of liquid excrements calculated on basis of nitrogen is equivalent to 150 pounds. That is for nitrogen 150 pounds of nitrate of soda is equivalent to 2,000 pounds of cow urine. The urine is extremely valuable for all kinds of vegetables and the quantity to be used can be estimated according to quantity of nitrate of soda you are accustomed to use.

4th. The Station is now working on best grasses for pasture lands. The native grasses are all good for their respective seasons. We think Orchard grass will prove one of the best cultivated grasses. For a series of pasture grasses: Native grasses supplemented by peas and corn as soiling crops for summer practice; Orchard grass for winter and spring; oats and vetch, and rye and vetch, for spring. These kinds make a good working basis. Johnson grass is a big producer, but when once started it is next to impossible to eradicate

it. For this reason it becomes a pest and many good farmers oppose it for this reason. Where one follows a system of crop rotation, the grievance is a just one and it is perhaps best to keep clear of Johnson grass.

### THE SOUTH AND THE BEEF TRUST.

A Good Sized Steer Fattened for the Market Worth Two Bales of Cotton—The Opportunity of the Southern Farmer.

Writing from Chicago to the Charlotte Observer, D. A. T. (presumably Mr. D. A. Tompkins, who has been on a trip West) emphasizes, as THE PROGRESSIVE FARMER has been so long doing, the importance of cattle raising in the South. He says:

While the Iowa farmer is growing rich by means of the high price of beef cattle and the so-called beef trust is being abused high and low for the high price of beef, what is the Southern farmer doing to make any of this hay while the sun shines? For several years the Observer has been pointing out the opportunity there was in cattle raising for the Southern farmer. Attention has again and again been called to the fact that the Western prairie grass lands were coming year after year, under cultivation, that the consumption of beef was year by year increasing, that the conditions in the South had been growing more and more favorable to cattle raising and that cottonseed hulls and cottonseed meal together with other ordinary food stuffs furnished everything necessary to fatten the beef cattle for market.

Present conditions more than justify every favorable thing that was ever said in the paper on this subject. One good sized steer fattened for the market is worth the price of two bales of cotton even at the present high price of cotton. The cost of raising and fattening one steer in the South would probably be little if any more than the cost of producing one bale of cotton.

In the last ten years the South has become a large consumer of beef but has not proportionately increased its production of beef. The usual proportion per capita is consumed and besides this many of the packing houses have established cold storage and beef market to supply the local butchers with Western beef. Thus the market for Western beef has been very largely increased by the increased consumption in the South without any corresponding increase in cattle raising and fattening.

The reason for this increased consumption in the South is due to increasing manufactures. Great numbers of people who formerly worked on farms are now in factories. On the farms they ate less meat than they do now and what they did eat they produced. Now they buy beef and it is this market which has made it profitable for the packers of the Northwest to open and profitably maintain storage and sales branches in the South.

It looks as though this is the day of the farmer if he will avail himself of the opportunities. Cotton is high but beef is higher still. A good farmer can raise a normal cotton crop and still have time to raise some cattle every year. It is more than probable that this is a permanent condition. The grass land is not in the West any more. The increasing cotton crops and increasing cottonseed oil mills will improve the conditions in the South.

Cattle and cotton are good supplemental farm products each to the other. Besides the value of the cattle, the Southern farmer would get from the cattle a lot of manure that would take the place of commercial fertilizers he now has to pay for out of the cotton crop. In this respect he has the advantage of the Iowa farmer who cannot use the cattle manure to such advantage as it could be used for cotton in the South.

Our excellent contemporary, THE PROGRESSIVE FARMER, shows that we were in error in making light of the rural free delivery of mail. We are very glad we were wrong, and hope the new routes, of which there are more than a hundred in North Carolina, will be a great blessing to our people.—Charity and Children.