

THE PROGRESSIVE FARMER.

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

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AGRICULTURE

HARRY FARMER'S TALKS.

CIX.

Editor of The Progressive Farmer:

The Legislature ought to give or appropriate the \$50,000 asked for to put up a suitable building for the teaching of agriculture at the A. & M. College. Farmers are so used to asking nothing of the State that they do not take the interest in such matters that they should. "The Lord helps those who help themselves," so write to your Representative and Senator and let them know that you want this building, and you will be sure to get it.

DIVERSIFYING CROPS

Can we afford to make tobacco and buy our home supplies? Farmers who raise tobacco in this county often have to buy corn and other feed. Tobacco as managed by our farmers consumes too much time at a season when other crops need attention.

It has been impressed on the farmers in the South by nearly all writers on agriculture that they never can succeed when they have to buy nearly all their home supplies. All cotton, all tobacco, all strawberries or all of any other one crop is not best for the average farmer. The farmer is told that he must specialize or cultivate only one crop if he would succeed.

Well, there are some crops that some farmer in rare instances might raise and succeed in making enough over and above expenses to justify him, but where you find one, you will find ninety-nine that will fail. A merchant works and tries to save all he can in order to increase his bank account, have a plenty of capital to buy when the market is in the best condition, and be able to buy in large quantities. This is his constant aim. Now the farmer must try to enrich his soil (his safest bank) a little every year so that his crops will be a little larger, for we all know that it is what we can make over and above expenses that pays us best.

Well, here comes the necessity for a rotation. You cannot plant corn every year on the same land without manure or fertilizer and make paying crops. You cannot do it with commercial fertilizer. You are compelled to add some humus to the soil or else with a yearly increased amount your crop will be smaller. A rotation of different crops on some land will keep up the fertility without

the addition of any other manures. Every farmer knows that certain crops will almost ruin his lands; for instance, cutting a heavy crop of crab-grass on uplands. Now if there is no manure applied to the land the next crop will be smaller.

CROP ROTATION.

If the hay is fed to stock and the manure returned to the land, there is but little lost. Hay of this kind seems to hurt our uplands worst in this section, but it is different with the cowpea or other leguminous plants. A rotation of cowpeas and oats, although both are cut off the land for hay, seems to affect it but little. A leguminous crop like cowpeas seems to like a change. So that we see that we must rotate or plant different crops if we expect to get the most benefits from our farms. We do not want to leave the impression that we must plant a little of everything in order to make a success; such farming would be almost as bad as to plant just one single crop, but it is necessary to rotate sufficiently to keep up the fertility of the soil and at the same time make heavy crops.

HARRY FARMER.

Columbus Co., N. C.

Sweet Potato Culture.

Editor of The Progressive Farmer:

I am a reader of The Progressive Farmer and a potato raiser, and I eat the big "Ambaiters" along the road. I raised five kinds last year and prefer the Peabody potatoes to any kind for my hogs, simply because they produce the most to the acre. Some people tell me that hogs won't eat them. That person I find feeding the most costly feed to his hogs. The Peabody is the earliest potato we have and could be shipped to large markets. I have sold them for \$1.00 per bushel by the first of July and I have heard of their bringing seven cents per pound on foreign markets. The real value of that potato is not known to Tar Heels. If it were known, bacon would not be so high during short corn crops like 1901.

I have used various kinds of fertilizers and have made large quantities to the acre. I have heard old folks give their experience with a perfect fertilizer, but nothing has been clear to my mind yet. I would like to know, through your columns, what is a perfect fertilizer for sweet potatoes?

Yours,
Wake Co., N. C.

W. H. B.

GROWING CROPS THAT HELP THE SOIL.

Dr. Kilgore Replies to a Correspondent and Tells of Some North Carolina Experiments—Leguminous Crops and Crop Rotation.

Editor of The Progressive Farmer:

The inquiry in The Progressive Farmer of February 10th, by O. W. S., whom I know to be one of the best farmers in his section, regarding the growing of vegetation for the addition of humus to the soil, is a pertinent and important one.

No soil will produce well which is devoid of or poor in vegetable matter. On the lighter types of sandy soils in the Eastern part of the State there is a heavy loss, especially in wet seasons, of the plant food added in commercial fertilizers, by its being leached out of reach of the roots of the plants, or entirely away into the branches and streams.

Vegetable matter, which on decomposition, produces humus, contains plant food itself. This plant food only becomes in condition to feed that plant, as well as subject to loss from washing away, on the decomposition of the humus, which goes on slowly and feeds the plant by degrees. In addition to furnishing the plant food itself, the humus assists in holding the commercial fertilizers added to the soil, and maintains at the same time a better supply of water in the soil and enables a better cultivation of the crops. Fertilizers can only do their best work in producing the greatest increased growth of crops by the aid of humus.

What then is the best way for the Eastern farmer to get this material into the soil? There is nothing better than our cow-pea for the time it occupies the land. One ton of pea vine hay per acre is only a moderately good crop. These vines if left on the soil (but it is better to feed them and carefully save and return the manure) and turned under in the late fall or early spring, will add to the acre of land about fifty-four pounds of ammonia, costing in commercial fertilizers, at present prices, about \$8.00; and in addition, about twenty pounds more ammonia—costing about \$3.00—would be left in the stubble and roots of the pea plant. This growth is made from July first till frost.

This is all well known and is being largely practiced. The cow-pea can and should be supplemented by grow-

ing winter crops like rye, oats and wheat, for grazing or cutting for early hay or for seed. They cover the land during the winter, take up and use in their growth plant food that would be washed out of the soil, and make humus if turned under in the spring.

Winter growing legumes, like Burr clover and vetch, would be still better for improving the soil. Last July we sowed burr clover broadcast in our cotton on the Edgecombe County Test Farm of the Department of Agriculture, and continued the cultivation till laying-by time. For more than a month now this crop has almost covered the ground. It will, we think, mature seed in May, and it is our purpose to plant corn after the cotton, leaving a small unbroken strip in the middle of the row, on which we hope sufficient seed will be matured to re-seed the land. If this prove to be the case, which is true further South, without further cost in cultivation or for seed, this land will be again covered with a green crop next fall, winter and spring, and will add to the soil the very best kind of humus, that rich in nitrogen obtained without cost from the air, in addition to furnishing grazing and preventing the loss of soluble plant food from the soil by the leaching rains of winter.

This work is still in the experimental stage, but success is indicated, in which case the addition of this crop to the rotation of O. W. S.—(1) peas or rest, (2) corn, (3) cotton—would cause his land to be occupied not less than 25 months out of 36, with a soil-improving, nitrogen-gathering crop. Similar experiments and rotations are in operation with hairy vetch and other crops with corn, cotton, peanuts, wheat, oats and other crops generally grown in the sections where the work is in progress.

At present, two Test Farms are in operation in the Eastern part of the State—in Edgecombe and Robeson Counties in the two ends of the sandy soil section of the State—and one is just being started in Iredell County on a good type of red clay soil of the Piedmont section of the State. Work along this line is also being conducted on the Experiment Station Farm at Raleigh. Soil improvement by the growth of leguminous and other green crops and rotations is being given a prominent place in all of this experimental work by the Department of Agriculture and the Experiment Station, and we shall be in a better position from year to year to say, on basis of our tests, what is the best procedure on the different soils and sections of the State. We shall be in a position to give something more definite along this line next summer.

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