

THE PROGRESSIVE FARMER

and The Cotton Plant.

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The Progressive Farmer

AND THE COTTON PLANT.
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CIRCULATION STATEMENT.

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The Progressive Farmer and Cotton Plant has—

1.—A larger circulation than any other weekly published between Richmond and Atlanta, and—

2.—A larger circulation than any other farm weekly published between Philadelphia and Dallas.

THOUGHTS FOR FARMERS.

Subsoiling Again.

However much instruction may have been given on this subject, there are always farmers ready to ask new questions or to repeat the old ones. An intelligent farmer of Camden, S. C., was in the city last week. He said that water stood in the cotton middles several consecutive days. It was suggested that it would not have done that if the hard pan had been broken. His reply was that many farmers considered subsoiling of doubtful utility down in his county. In most of that county they have a red or yellow clay. A few general principles may be stated for the guidance of young farmers, or old ones, who wish to improve their lands. Reference is had entirely to lands that have a clay subsoil. We have no experience with alluvial lands such as may be found on the rivers in the lower part of this State.

Never subsoil land when the clay is wet enough to mould into brick. It should always be dry and easily pulverized.

It is worth little to subsoil land when the top soil is very thin and devoid of humus.

Break about one-fourth as much of the clay each year as there is top soil to mix with it. One to two inches a year will soon give a 10-inch soil, provided humus is added by means of small grain and cow peas.

It is scarcely worth the labor to subsoil pipe clay, as it has no plant food locked up in it. Chemists state that there is enough potash and phosphoric acid in one foot of the dark red or chocolate-colored clay to last a hundred years.

Never turn a two or three-inch layer of clay to the surface. It will make the land less productive for a few years. After the subsoiling and harrowing very little clay should appear on the surface.

Land subsoiled in the fall and sown in small grain and followed by peas will show no signs of clay, for it will be thoroughly mixed with the top soil and through the agency of frost, air, water and the roots of plants it ceases to become clay.

The very foundation of progressive improvement is judicious subsoiling, sowing small grain and peas, and a three-year rotation.

Improved Methods.

Reading agricultural papers, occasional Institutes and farmers' club are slowly working a revolution in this county. A. B. Groce near Wellford is making 40 to 50 bushels of corn on

upland. He is now considering the practicability of introducing a traction engine to break his land. There are scores of farmers that are falling in with improved methods. There are more peas sown and planted in this county than the writer has ever seen. There is much inquiry after seed oats and wheat. From experience and studying reports of successful farmers the Apler and Red Rust Proof are the oats for fall sowing. This is the time to sow them, or rather plant with the drill. This slow improvement is a revolution. It will work slowly. Editors of agricultural papers need not despair. The seed they are sowing may be slow in producing fruit, but it is very sure. The non-resident landlords, those who buy a little tract of land, or two or three tracts and then rent to any one who will pay a bale or two bales of cotton in the fall, are enemies of true progress. They do not care how the tenant proceeds so the rent comes up in the fall. But revolution is working. There are ten thinking, progressive farmers to-day, where there were five ten years ago. The outlook for the future is hopeful.

CHAS. PETTY.

Spartanburg, S. C.

HOW TO GET GOOD SEED CORN.

Importance of the Subject Not Appreciated—Breeding With Scrubs as Bad With Plants as With Animals.

A farmer in the central part of this State writes to me: "This spring, in February and March, I broke my corn land deep, and at the same time ran a sub-soiler behind, breaking two inches of the subsoil, and harrowed each day's plowing in the evening. Then harrowed twice more before planting. Planted with a corn planter 2x4 feet. At once began to run the weeder and continued it until the corn was two or three inches high. I then used a four-foot cultivator, and again put the cultivator on till it was two feet high, and the weeder till laid by. Never saw corn grow faster, but it has almost failed to ear out, and what ears are on it are small, and I do not believe that I will make over 150 bushels on 20 acres, on a field where with nothing but pea-roots, the year before made 100 bushels of wheat. I cannot understand the failure. Did I do wrong in subsoiling in the spring? The cultivation was ideal, shallow and level and the seed was first-class. Can you tell me the cause of the failure? The height of the corn is all right. Did I plant too close? I find no ears in places where the corn has a space 4x5 feet. The land is red up-land.

I have replied to this letter personally, as I do to all North Carolina farmers, but here is such a prominent example that I have concluded that others may be helped by a few words. In the first place I am of the opinion that spring subsoiling is not generally advisable, since the subsoil is then to wet to crumble well. But this is not the cause of the failure, for the corn did grow all right and the cultivation, as our friend says, was ideal. The land is evidently not strong, as was evidenced by the fact that with pea roots plowed under, the 20 acres made but five bushels of wheat per acre the year before. The pea roots had still left some nitrogen in the soil doubtless, and the growth was good, but the soil lacked phosphoric acid and potash to mature the ears. But aside from this I believe that chief cause was bad seed. He says that the seed was first-class. It may have been so, so far as germinating power is concerned. But it was evidently sired by scrub male plants, and it has bred after the scrub just as an animal sired by a scrub male will deteriorate.

The corn may all have come from beautifully shaped ears, and may have been of perfect quality so far as growing is concerned. But it was evident, we think, badly bred. Selecting pretty ears in the field or in the crib will never improve the seed corn to any extent. That is what our people have been doing all their lives, and the result is long-legged corn that has to be planted wide apart, single ears on the stalk, that wide planting can never make a large crop, and barren stalks all around it to furnish the pollen for the ear. For the ear on any stalk is seldom if ever made by the pollen from the same stalk and should not be, if we are able to keep up the stamina in the plant. But these barren stalks, while making no ears, are abundantly supplied with the male element, the pollen, and the corn inherits from them the same barren character. We have advised our friend, and we advise all others to get the best corn to be had in their neighborhood or in the same climate. Do not take seed from the field that is now full of barren stalks, but get some that has been better bred in the same climate. Plant a patch solely for seed on the best of land, and give it the ideal cultivation as you have this crop. Watch it closely at tasseling time, and take out the tassels while green from every barren stalk, and from every stalk that tend to grow long-legged and to produce but one ear. Let no plants bear pollen but those that come nearest to what you would have the ideal plant, and which show a greater productiveness than a single ear. Take seed for your next crop and seed patch from these prolific plants, and every year plant a seed patch in the same way. In short, breed at first for corn, in quantity per stalk and per ear, and when you have established a hereditary habit of prolificacy it will be time enough to pick out the finest ears. If the ears grow too high from the ground, try planting the lower ears by themselves and note the difference. Breed the corn to a stature that will enable you to plant as close or closer than you have planted, and if you give attention to improvement of your soil you will soon have no reason to complain of poor crops. Get more peas on that land and use acid phosphate and potash liberally on the peas and you may depend on their doing the rest. The peas that you grew before the little wheat crop left you some nitrogen in the soil, but you took off in the peas a large part of the phosphoric acid and potash that the corn needed, and aside from badly bred seed this helped to make the poor corn, for phosphoric acid and potash are both needed in the perfection of the grain. Then practice a good rotation and occasionally use some lime on your land, and it will enable you to get the potash that is usually plentiful in red clay land, but in an insoluble state. But no matter what rotation you use, you will never get the best returns in the crop till you breed your seed corn right. It is not enough that the seed corn be sound and vital, it must have an inheritance behind it of good sires just as much as an animal must have. No breeder of cattle ever thinks of using a scrub bull, but thousands of farmers are using scrub males to produce their seed corn, and the result is scrub crops even on strong land.

W. F. MASSEY,

North Carolina Experiment Station.

The Spencerian Style.

"I am going to thrash you, but you can have any style of whipping you want," said the school teacher.

"I'll take 'Spencerian' style, please."

"But what is Spencerian style?"

"Up strokes heavy and down strokes light, sir."