

PROGRESSIVE FARMER

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

Vol 15

RALPH. N. C. MAY 8, 1900

No 13

Agriculture.

PROF. MASSEY ON THE SOUTHERN COW PEA.

As a Forage Crop Unexcelled, While Providing Free The Most Costly of all Fertilizing Elements—Growth Cow Peas Wherever Nothing Else is Growing.

Correspondence of The Progressive Farmer.

The observant student of agricultural progress cannot have failed to note the great advance that has been made in recent years in the cultivation of leguminous plants for the feeding of cattle and the improvement of the soil. The determination of the agency which these plants have in the fixation of nitrogen in the form of organic matter in the soil is one of the greatest accomplishments of modern biological study. The fact that clover and some other plants did exert a great influence in improving the fertility of the soil was long known, but how they did it was a matter about which nothing was known until recent years, and there is still much to be learned in regard to the exact process by which the legumes do acquire the nitrogen of the air through the agency of microbes on their roots. But for the practical farmer it is enough to know that they do it. Knowing the great good to the soil which has been done in the North through the use of clover, many Southern farmers have tried clover growing with more or less success. More failures generally than successes have been made with clover in the South, particularly in the cotton lands of the coast region proper. And right there was where the benefits of such a plant were most needed, for the long constant and clean culture of cotton had so reduced the humus in the soil that commercial fertilizers failed to have the effect desired in their use and the soil suffered more seriously from the effects of drought than when fresh and fertile.

For generations the Southern field or cow pea has been grown in the desultory manner in the South, usually among corn merely for the purpose of getting the peas or for feeding hogs on the land after the corn was off. Only in recent years have the Southern farmers begun to wake up to the knowledge of the wonderful value of the pea both as a forage plant and as a soil improver. Farmers who formerly thought they were doing a good thing for their land by letting it lie a year between crops of cotton growing up in all manner of weeds and grass, have found out that the most profitable way to rest their land is to cover it with peas instead of weeds, and thus get a valuable feed crop when cured as hay, while the land is improved in productive capacity for the following crop. We are beginning to learn that there is no reason to regret the fact that clover is not a success in the South, for we have at hand a plant fully adapted to our climate, which will do all that clover can do for us, and do in 60 or 90 days what clover takes two years to accomplish. It has fallen to my lot to take an active part in the battle for the pea, and in urging on the Southern farmer the practicability with its aid of increasing the fertility of his soil to the highest point of productivity without the purchase of an ounce of nitrogenous fertilizers. The cotton lands of the South in the sandy sections at least need good supplies of nitrogen, and this is the most costly thing they have to buy when bought in a fertilizer. But the pea gives them this in abundance; at the same time it is giving them the most valuable of stock foods.

The agitation that has been going on in regard to the Southern pea has attracted as much attention among the wide awake farmers in the Northern States as in the South. The introduction of early-maturing varieties has enabled the Northern farmer to experiment with the Southern pea and he, too, has found it is of inestimable value, and that the "clover of the South" can well supplement the clover in the North. Years ago it was thought that the pea could not be made a success north of Maryland and Delaware. But we have letters from farmers who have found

it invaluable as far north as Southern Vermont, Northern Indiana and Southern Michigan. Seed taken gradually from South to North as they will mature have enabled the plant to become acclimated much further North than was thought possible a few years ago. Of course it reaches its greatest value and development in a warm climate and a sandy soil. Few farmers supposed a few years ago that the farmers in Illinois and Missouri would be growing cow peas for forage, and finding them a success. A feeder of beef cattle for the export trade in Missouri says that no food he can get will finish off a beef like the hay of the cow pea.

Another man in Missouri whose business is the raising of thoroughbred horses says there is no feed equal to cow pea hay for finishing up a colt. From extensive experiments at the Station and among farmers in the vicinity of the Station, the Missouri Station advises the farmers of the State to grow cow peas for hay rather than timothy. And yet the Southern farmer has for years and generations been regretting that he cannot grow hay in the South as they do in the North, and has accepted it as a fact that he cannot feed cattle because of the lack of hay. With the cow pea, which he can grow better than it can be grown anywhere else, he can compete with any part of the country in feeding cattle. If the Missouri farmers find it more profitable to grow cow pea hay than timothy it should be found still more profitable to grow it in the South where the pea is more at home. Our farmers have for years been experimenting with various kinds of forage plants, such as cat-tail millet, German millet, teosinte, and all the weeds that have of late been sent out as forage plants, while all the while they have had in the pea a plant of surpassing excellence for all the purposes of forage, while at the same time it returns to the land more than it takes away from it.

The wonder is not that the pea is being more extensively grown in the South, but that it has ever been neglected. But it will not do to assume that the pea will make any soil permanently fertile. It gives nitrogen-making humus, but in order to do this it needs feeding, for it is a greedy consumer of phosphoric acid and potash. We have for years urged upon the farmer the fact that by feeding the pea we can more rapidly increase the productivity of our land, than by the short-sighted policy of applying fertilizers to the sale crop direct, and buying the nitrogen we could have gotten without cost and even at a profit. Applying the cheaper forms of plant food to the pea crop we get a large increase in the forage crop that is going to stay on the farm to be fed to animals. It is easy to see that the heavier the forage crop, the more the animals can be fed. The more stock we feed and feed well, the more manure we make at home and make the need for nitrogenous fertilizers still less. Raising the richest of forage and feeding it we will constantly be increasing our ability to feed as the productivity of the soil increases.

An increase in the pea crop must invariably be followed by an increase in the crop that succeeds it whether it be wheat, corn or cotton. Hence the feeding of the peas and the increase of the forage crop starts the increase all around from the manure pile to the granary or store houses, and year by year it will go on in an increasing ratio simply because you feed the crop that feeds the land! There has been a notion that it is necessary to go to a great deal of trouble to cure peas into hay. The fact is that there is no hay more easily cured. When sown for hay we would sow very thickly if the land is strong so as to prevent the stems getting too large and sappy. Then when the first pods turn yellow, mow the peas and after they have wilted during the day, rake them into windrows before night. Turn the windrows over the next day. The next day, if you can take a bunch of the hay and give it a hard twist

and can see no sap run to the twist, put the hay away under shelter. A close barn is best, but it will cure well anywhere under shelter or even in a stack, if the stack is capped by straw or grass that will shed the rain. The wilted vines will heat after storing, and if you go to opening them to cool them off you will certainly make mouldy hay, but if left strictly alone they will cure into beautiful hay. Some have failed in this curing, but hundreds have succeeded. My own horses have been feeding all winter on bright-colored pea hay made in this way, and have kept in fine order. Where the hay is very heavy it will have to be left out a little longer than where light, but get it in while the leaves are still limp or you may lose the best part of the hay. W. F. MASSEY. Wake Co., N. C.

"A BATTLE TO BE RE-FOUGHT."

Correspondence of The Progressive Farmer.

Under this heading the editor was pleased last week to give a review of the encroachments and solidarity of combinations which are this year prepared to levy taxes of their own on the farming interests. Where is there anyone to seriously stand against the levies which the trade combinations see fit to make on the cotton or any other farming interest? The editor is blurring your readers into a belief that there is somewhere a farmers' organization, and that in some mysterious way this organization will be able to "throw off the shackles of capital," and march forth with a chip on its shoulder ready and able to cope with any power on earth.

The facts are that the men who make and sell the bagging and ties know their ground and are well organized to make some money. There has been a magnificent rise in cotton and every tyro who can harness a mule or yoke a bull yearling in the whole South is going to put pledges on the future to secure bread and meat and commercial manure to "make a crop." Without disastrous conditions to the crop from Virginia round to the remotest limit of the cotton belt in Texas the struggle is on to grow cotton—more cotton than ever before. It is only a question of weeks and the lint will be ready to pick and be put on the market. The season begins in June and lasts until December.

Where is the farmer's organization with its inspector who has a bank account behind him that can say to the white planter of Texas, or the colored grower: "You need not pay these exorbitant prices; pile up your seed cotton in as safe and dry a place as possible; here is a loan to you from your Carolina brother that will enable you to meet your present obligations. We will stand together and fix the prices on these people's commodities." What other proposition than one carrying the force of ready cash will serve to help a poor cotton grower to redeem his pledges and from paying whatever price is demanded for groceries consumed, for fertilizer used on crop mortgage, and from ruin if he does not fulfill the obligations entered into in order to come in with cotton this year?

This year, of all the years of late, is the one wherein to plant corn, potatoes, wheat and seed North Carolina hillside to grazing grasses. These will raise more cotton profit than can be cultivated out of the earth in cotton after the outside charges are paid and the crop for the year has been counted and had its effect in settling the price of the lint—settling probably so low the growers will hold empty purses when the "returns are all in" and the bills paid.

Ten years ago the Farmer's Alliance was well organized and strong. Its doings in the cotton bagging line is one of the few things to go back to. Instead of staying organized and being farmers first and last some of its trusted representatives have denied their faith for offices and others have held back in their membership because the ties that should be only composed of "sand" of the micaeous sort and do not "bind."

The rank and file are out for what can be obtained by individual effort, and they are as likely to reap on that basis this year as any other in cotton growing—more likely to reap the results of disorganization than ever before. F. E. E.

MR. JORDAN AND HIS PLAN.

Correspondence of The Progressive Farmer.

As some newspapers have heaped abuse and ridicule on Mr. J. F. Jordan, of Greensboro, who instituted the movement of the tobacco growers of this State against the American Tobacco Trust, allow us through your columns to say a few words in regard to Mr. Jordan's reputation.

We have personally known Mr. Jordan for a number of years, and know him to be a man of sterling worth and rare business qualifications always having the greatest respect for truth and honesty, and always advocating the maxim "Do unto others as you would have them do to you."

Knowing Mr. Jordan as we do, we feel it to be our duty to encourage the tobacco growers of the bright tobacco belt to put forth every effort and give all their influence in behalf of Mr. Jordan in his holy war against this giant octopus the American Tobacco Trust, that is sucking the life blood from the tobacco industry of this southland of ours.

We send you an amendment to the Jordan plan as adopted by the State Tobacco Growers' Association, that the Sumner Township Tobacco Growers' Association has drawn believing it to be more effective and easier for the tobacco growers to be organized under:

"We agree first, to sell our entire crop of tobacco for the next five years to said J. F. Jordan and his associates, a corporation which shall be formed for the purpose of manufacturing and disposing of said tobacco, said corporation to pay for any and all tobacco when offered in cash at an advance of not less than fifteen per cent. over the average price of the same grade of tobacco during the last five years, said price to be fixed by a commission a majority of whom shall represent the seller.

2d. Said corporation shall allow any and all planters to take stock in said corporation to the amount of twenty per cent.

3rd. All tobacco shall be graded and averaged on the warehouse floor by two growers selected by this organization and two leaf dealers selected by his people.

4th. Any planter selling his tobacco or any part thereof to any person or persons other than this organization or said Jordan and his associates shall forfeit amount of same, also his entire crop of tobacco to said Jordan and his associates.

5th. Any person in either corporation or organization making default in his agreement in any particular shall be guilty of fraud, and may be punished according to the laws of the State in which he resides, at the discretion of said corporation or organization. S. E. COLTRANE, Pres't. R. E. HODGINS, Sec'y. Guilford Co., N. C.

ENGAGE YOUR FARM PRODUCTS.

The farmer in order to dispose of many of his products to advantage will find it a good plan to engage them previous to taking them to market. For instance, if he has cucumber pickles to sell, if he takes them to the stores they will in all probability have barrels put up by manufacturers, and they retail them out at 25 cents a gallon. A farmer cannot take this for pickles put up in pure cider vinegar, and nicely spiced when many families will take these pure articles and pay well for them. Many times have we seen farmers go to town with large loads of pumpkins and squashes and the pittance they received for them wouldn't pay for the wear on the team. In this locality many a farmer can take his choice between a sum far less than a load of wood is worth, or haul his wood back home, when the farmer "who is watching the corners" will engage his wood during the summer months, and haul it in the fall when the roads are good. —H. C. PARKER, Kidder, Mo.

Reports from the Western part of the State are to the effect that the grain crop there is very fine this year.

Horticulture.

GARDEN ENEMIES AND HOW TO DESTROY THEM.

Farmers' Voice says that during recent years the insect enemies of garden crops have become much more numerous than formerly, largely on account of the ravages of imported varieties which seem to thrive in their new environment, and this makes the knowledge of how to meet these new enemies absolutely necessary to success. "The best way to begin is to give the various garden crops the best possible chance by providing good soil, proper plant food and cultivation that they may grow up vigorous and better able to resist destruction from insect pests. Without these the crop will not be worth the trouble of preventing attack from these destroyers. After these come watchfulness and prompt attention to remedial measures. There is hardly an insect pest but can be destroyed with little trouble if taken when it first puts in an appearance."

The following gives the principal pests and the means of destroying them:

"Cutworms are hard to catch, as they keep hidden during the day. Usually they do but little damage if the garden is plowed very early in the spring and allowed to freeze and thaw a few times. A good way to kill them is to sprinkle Paris green on slices of potato and lay these pieces near freshly set-out plants.

"Paris green also kills potato bugs in a very short time. Most people use the mixture too strong. Two ounces to fifty gallons of water is effectual if the mixture is kept constantly stirred. Striped cucumber bugs are about the hardest we have to deal with. They come in a night and destroy the vines in a day. Usually they send a scattering advance guard, which should be a warning, for thousands are sure to follow. Mix 5 pounds of air-slaked lime and a quarter of an ounce of Paris green very thoroughly and dust the leaves with this while the dew is on in the morning. Do this before the bugs come, and repeat occasionally until danger is past, which will be the last of June usually, although sometimes they come later. Do not leave any clods around the hills. Make the surface smooth, so there will be no hiding place for the bugs, and sprinkle the mixture on the ground pretty freely. Soot from the chimney where wood is used is good, and we have driven them away with road dust sprinkled freely on the leaves, as they seem not to like grit. Be sure to get the remedy, whatever is used, on the under side of the leaves, as there is where they feed.

"Squash borers are becoming worse every year, seemingly, and in some sections they have made it almost impossible to grow squashes. They work in the vines, beginning at the roots. The eggs are laid early in the season on the stems just where they come from the ground and the borer hatches and works inside. The lime and Paris green will be a good thing to use early in the season, and as the vines begin to grow hoe the soil over the crown where the vines come from the ground. As the vines make growth cover every second joint with soil to the depth of two inches and roots will strike into the soil almost at once, adding vigor to the vine, even keeping it growing when the borers succeed in getting into it. If the vines begin to droop, split open with a sharp, thin knife and find the borer and kill it. Then cover with soil and it will usually revive and grow without injury.

"Cabbage worms are certain to be with us, but they are so easily destroyed that they should not create much alarm. Take common Persian insect powder, being sure to get that which is fresh, and put it into a common powder gun, or in the absence of that, a pepper box with a perforated top, and early in the morning sprinkle a little of the powder over the inside of the leaves on the worms that are at work. In five minutes every worm that is touched will be dead, and a few such treatments are all that is necessary in a season. The insect powder is not poisonous to anything but insects and may be used with safety."

THE GARDEN PATS.

A Successful Trucker Tells What Can be Done With Beans.

Correspondence of The Progressive Farmer.

As the season advances and the press of farm work increases, the garden is more than likely to suffer from neglect; and yet, if you will but stop and think a moment, you must admit that nothing on the farm pays so well for the time devoted to its care. If your garden has been properly laid out, so that it can be worked with horse and cultivator, an hour or so each week will suffice to keep everything in first-class condition, and the time will never be missed from the crop. Use a fine-tooth cultivator or harrow, most of the time, for a tool of this kind can be run very close to the young plants, and will save much hoe work.

Among the vegetables which should occupy a prominent place in the farm garden is the snap bean, both bunch and pole. Repeated planting of this bean should be kept up to insure a continuous supply. The new Stringless Green-pole, Valentine, and Best of All are good bunch varieties, with the Kentucky Wonder and White Creaseback for pole. One quart of the bunch beans will plant one hundred feet of drill, or about 2 bushels and 1 peck to the acre, where the rows are two feet apart. The pole bean can be planted at the rate of 1 quart to 150 hills, in rows 4 feet or 5 feet apart, and hills 2 feet in the row, training two hills to a pole. There are a number of good wax varieties, but we much prefer the green podded sorts, they being more hardy and productive, also better sellers.

The culture of beans is very simple, and comparatively little manure or fertilizer is required. This should consist principally of potash and phosphoric acid, as the bean belongs to the leguminous family and can obtain a large portion of its nitrogen from the air. A fertilizer analyzing ammonia 3 per cent., phosphoric acid 7 per cent., and potash 7 per cent., is about right for this crop; applied at the rate of 500 pounds per acre. To prepare a fertilizer which will analyze as above, take 100 pounds nitrate of soda, 450 pounds cotton seed meal, 1,200 pounds acid phosphate, and 250 pounds muriate of potash, to make a ton, or 1,700 pounds bone meal and 500 pounds muriate of potash, will also give a similar fertilizer. Care should be taken to have the soil fine and the fertilizer well mixed in the row. We like to prepare our land, apply the fertilizer, put two furrows on it, and let it stand about two weeks before planting, then plant as soon after a rain as the land will do to work. The top of the ridge can be knocked off with a board, and the seed put in with a drill; or the ridge can be opened with a small scooter, and the seed dropped by hand, covering about two inches deep. In this way you may be almost sure of getting a good stand. If, however, there comes a heavy rain after planting, and a crust forms over the seed, it should be broken with a harrow or rake, else the beans will be slow to come, and an inferior stand will be the result. When cultivating, be careful to plow and hoe your beans only when the vines are dry; otherwise they will turn yellow, and the crop be greatly damaged.

Of lima or butter beans, the small bush varieties, such as Henderson's Bush Lima, succeed best in the South. There is also the Small Lima (Sieva) a pole variety which does nicely. I have seen this bean completely hide a garden fence in Florida, and furnish a continuous supply of beans all summer. Lima beans should not be planted until the weather is thoroughly settled and warm, otherwise the seed is likely to rot in the ground. Their culture is similar to that of the snap bean, with the exception, that they require very much richer land for best results, and we therefore use double the quantity of fertilizer for them that we do for the snaps. We find these beans very profitable for the home market and last year we sold \$100 worth from one-half acre on land that had grown a crop of strawberries in the spring before the beans were planted.

F. J. MERRIAM.

Battle Hill, Ga.