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

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THE PROGRESSIVE FARMER is the Official Organ of the North Carolina Farmers' State Alliance.

"I am standing now just behind the curtain, and in full glow of the coming sunset. Behind me are the shadows on the track, before me lies the dark valley and the river. When I mingle with its dark waters I want to cast one lingering look upon a country whose government is of the people, for the people, and by the people."—L. L. Polk, July 4th, 1890.

PRACTICAL FARM NOTES.

Written for The Progressive Farmer by the Editors and Hon. Guy E. Mitchell

Pumpkins are easily raised and make good feed for stock. Do not forget to plant some with your corn this year.

All delinquent subscribers are earnestly requested to send us at least part payment of subscription before June 1st. Don't forget this. It's only a little sum to you, but the many little sums due us amount to a rather large sum. Send in your part at once. We need it.

The farmer who is too stingy to buy good farm tools and machinery is more foolish than economical. The politician who makes speeches on the political issues of a hundred years ago and refuses to study the questions of to-day and the farmer who tries to farm with the tools of a century ago, are in the same category.

Now that you are starting a crop, do not forget or neglect your garden. Treat it fairly, and it will save you many dollars that would in its absence be spent for supplies from the village store. Besides, you cannot keep good health unless you eat plenty of fruit and vegetables. But do not expect your overburdened wife to do all the work the garden demands.

In another column we give a letter from Mr. E. B. Barrett on "Purifying Sour Soils." Mr. Barrett, however, makes a mistake when he advises farmers who have unproductive rich soils to "apply lime every year" for number of years in succession. The best agriculturists agree that lime should not be applied so often. For a better understanding of this question, read "Nutritive and Stimulant Manures" in The Progressive Farmer of April 18th.

The time for planting—the beginning of the crop—is almost here. See that your boy has a copy of Prof. Bailey's "Principles of Agriculture" before the season begins. It will teach him something of the science of farming and greatly increase his interest in farm work. Perhaps you are not able to send him to an agricultural college, but you can at least get him a copy of this book and if he is "made of the right stuff" he will study it and more than repay you for its cost. We will send a copy postpaid to any address upon receipt of price, $1 25.

Here's a valuable bit of advice which we clip for the benefit of horse owners. It is from the Texas Stock and Farm Journal and deserves a place in every farmer's scrap book:

The sensible farmer will not be frightened by what seems to be a big stallion fee if the stallion is himself all right. He may be unable to pay it or it may be very inconvenient for him to pay it, but if by any reasonable sacrifice somewhere in his plans for the season he can pay it the investment will be one of the very best he can make. It cannot be too often repeated, nor too strongly emphasized, that it will not pay to raise scrubs, and if the owner of a mare worth keeping on the farm cannot breed her to a really good horse, one belonging to some one of the classes in demand, he would save money and trouble by letting her go unbred thrcugh the season.

We are very anxious to make The Progressive Farmer of special benefit to every farmer who reads it. We are also anxious to hear from our numerous farmer readers on farming subjects. Have you made mistakes in farming? Tell our readers of them in order that they may avoid making them. Have you been successful? Tell our readers by what means success was attained. Do you want information regarding any farm crop, any kind of stock, fruit, or grass or diseases of these? If so, write us at once. We want you to realize that The Progressive Farmer is the farmer's own paper, and we want you to use it, write for it and work for it. We went to help you and want you to help us.

Mr. Herbert J. Webber, a vegetable pathologist of the Department of Agriculture who has been working on some interesting experiments in the nature of producing a hardy orange, has just gone South to undertake the second stage of his operations. While the commercial orange is a tropical fruit, the Japanese have long had a hardy ornamental orange (Citrus trifoliata), which, however, bears worthless fruit. Mr. Webber has been crossing the two oranges with the idea of producing a hybrid which will possess the fine fruiting qualities of the orange as well as the hardiness of the trifoliate. It is a well known fact that hybrids are likely to combine the best traits of the two parents and Mr. Webber has succeeded in growing some 2,000 plants which distinctly show the traits of both the orange and the trifoliate. Of course only actual tests of the frost resisting qualities of these seedlings can determine their value and Mr. Webber is now in Northern Florida and Georgia budding his seedlings upon trifoliate trees in those sections where frost regularly occurs. He expresses the utmost confidence in having produced orange wood which will bear good oranges and at the same time be to some extent at least, frost resistent, although an ideal hardy orange may not have been attained at this first crossing. Last winter's freeze in Florida, causing the loss of hundreds of thousands of dollars worth of fruit shows the great possibilities of such work.

In a recent Cornell bulletin, "Annual Flowers," by Prof. L. H. Bailey, author of "Principles of Agriculture," many methods of beautifying rural homes and schools are referred to. Talking to the boy who has been given a garden spot for his very own, Prof. Bailey says:

"Let me tell you how to water the plants. I wonder if you have a watering pot? If you have, put it where you cannot find it—we are going to water this garden with a rake. We want you to learn, in this little garden, the first great lesson in farming—how to save the water in the soil. If you learn that much next summer, you will know more than many old farmers do. You know that the soil is moist in the spring when you plant the seeds. Where does this moisture go to? It dries up—goes off into the air. If we could cover the soil with something we should prevent the moisture from drying up. Let us cover it with a layer of loose, dry earth. We shall make covering by raking the bed every few days; once every week, anyway, and oftener than that if the top soil becomes hard and crusty, as it does after a rain. Instead of pouring water on the bed, therefore, we shall keep the moisture in the bed. If, however, the soil becomes so dry in spite of you that the plants do not thrive, then water the bed. Do not sprinkle it, but water it. Wet it clear through at evening. Then in the morning, or when the surface begins to dry, begin the raking again to keep the water from getting away. Sprinkling the plants every day or two is one of the surest ways to spoil them."

In a recent investigation in New York State as to the social and economic conditions in the rural districts in was found, as is the case in most sections of the country, that there has been of late a great deterioration in farm values and a large and steady trend of farmers and farmers' children toward the cities. This is for a variety of reasons—lack of school advantages, difficulty in obtaining good help on the farm, bad roads and lack of money making opportunities. A condition of affairs prevailed, however, in one locality of the State that seems pre eminently significant. This singular contrast with other sections of the State was found in the vicinity of Ithaca at which is located the Government Agricultural Experiment Station and the agricultural college. There was an air of prosperity about the farms not found in other sections. The farmers were full of hope and their children expressed the determination to remain in the country and follow agricultural life. Inquiry brought forth the opinion of the farmers that the station is a direct help to them and that the entire conditions there are different from those in the bulk of the State. Not only this, but it was found that the indirect influence of this institution was greater even than the direct. One farmer a hundred miles from Ithaca who had taken a course of agricultural training at the college, was carrying the benefits of his scientific knowledge into his community. His neighbors, seeing how superior his methods over theirs, are quick to profit by it. This led to an investigation as to whether the same condition prevails in the vicinity of other agricultural colleges and government stations; the inquiry proved that they are all bearing excellent fruit. Farmers come long distances to see and learn about the principles than underlie scientific agriculture. They also stimulate correspondence as to the best methods of cultivation of particular crops, of getting rid of farm pests, etc., etc.

AGRICULTURE.

BROOM CORN.

Some Suggestions From Mr. Patrick.

FINEBLUFF, N. C., April 20, 1899.
Correspondence of The Progressive Farmer.

I am sending you through our Seaboard Air Line agent at your station, a home made broom, that was made out of broom corn grown as an experiment on the Seaboard Air Line Experiment Farms. The straw, you will notice, is somewhat brittle, because we allowed the seed to ripen before the straw was cut. We did this so as to save the seeds to distribute among farms. The proper way to cure the straw is to bend the stalk about eighteen inches from the head some days before the seed become matured. Then the straw cures a green color and is very tough and wiry.

Another way to cure it, is to cut the head from the stalk before it is fully matured and dry or cure it in the shade. We are also sending you a number of packages of broom corn seed, which you can give to those you think would take an interest in experimenting.

The broom factories along our line the past season have had to pay about one hundred dollars a ton for the straw. At this price, or even at sixty dollars a ton, it pays to grow the broom corn.

We have had the rough brooms made just to show, that it is impossible for a farmer to experiment with the broom corn and utilize what he makes, as the brooms are serviceable around the homes of our farmers, and it will save in the run of a year, fifty cents on each farm, if they use brooms made at home; and on an average there are probably four thousand families to each county, and this would be a saving of two thousand dollars a county. Besides, it could encourage the establishment of small manufacturing industries in the country. We send too much money away from our South land. In fact from the cradle to the grave we are patronizing outsiders. The cradle to rock the baby, is made in Michigan, and the spade to dig the grave of the grand papa is made in Pennsylvania. Our prayer books in New York and our shoes in Massachusetts; our watches and clocks to indicate the time of day to go to work, is made in Connecticut, the agricultural implements in the Western and Northern States. We cannot start big factories at once, but small industries can be started that will grow into factories as our people learn. We have been urging our people to start canning factories and put up vegetables and fruit for market, and the outcome has been that more than three hundred small canning outfits have been brought and put into operation by the farmers of the Seaboard Air Line.

With kindest regards, I am,

Very truly yours,

JOHN T. PATRICK,
Chief Industrial Agent.

PURIFYING SOUR SOILS.

The value of lime in purifying sour soils is such as to make its general use very necessary. Lime is not a fertilizer in the strict sense of the world, but in connection with manure it is often absolutely essential to the fertilizing of the soil. Land gets sour from one cause or another, and some soils get "manure sick." It is possible to so feed the soil that it gets indigestion, and the more that is piled on the less it seems to produce. I have seen soils so rich that they could not produce more than very small crops. They were manure sick and sour.

It is at this stage that lime comes in to correct matters. A top dressing of lime on such a soil will do more good than a thousand dollars' worth of commercial fertilizers. It is possible to raise abundant crops for several years in succession on such soils by simply giving them a top dressing of lime every year. It is owing to this that some farmers have gathered the impression that lime is a good fertilizer. The action of the lime was not to furnish any plant food but simply to correct the acidity of the soil so that the abundance of fertility could be taken up by the crops.

Lime is good sometimes to kill certain germs which multiply in the soil. Thus the bacteria which causes club foot in cabbages will be killed if the land is dressed in the spring with lime. It has beneficial effects in other ways too. It tends to loosen an disintegrate the texture of the soil so that the drainage is better and the mechanical condition of the soil is improved so the roots of the plants can extend downward for water and food.

Lime is of value on the manure pile at times. Mixed in with the manure it will tend to sweeten it, and it will enter the soil in conjunction with the fertilizers to perform its work here. Where heavy dressing of manure has caused the potato scab in these tubers, it is wise either to dress the land with lime or to mix lime with the manure just before applying it.—A. B. Barrett.

IMPROVING FARM LANDS.

The Northern farmer takes the greater part of two years to get out of clover what the farmer in the cotton belt can get from the cowpea in two months. There has been a great deal written about growing clover in the South, and there are doubtless certain sections in the upper South where the conditions of soil and climate make clover a valuable crop. But all over the cotton belt there is no crop which men attempt to grow that has been a greater failure than clover, and we have long wondered why the Southern cotton farmers ever wish to grow it.

Coming South of Virginia and into the cotton country proper, the cowpea flourishes as it does nowhere else under the sun. With this crop the Southern farmer can grow more and better hay, when properly cured, in two months than the Northern farmer can get out of clover in a year or more. He can accumulate as much fertility in the shape of nitrogen from the air by the aid of the cowpea in that short summer time as the Northern farmer can get through the use of clover in a year or more. And he can get all this work done for his soil after he has gotten a crop of grain from the same land, and can then prepare the soil for another grain crop the same season.

Why then should our farmers want to grow clover at all? It takes men a long time to learn that the crops of one section are not always the best crops for a different one, and that if we wish the highest success, we must study our climate and soil.

There is hardly an acre of the red clay uplands of North Carolina that under a good system of farming that will not come to make 50 bushels of corn and as much of oats per acre, with cowpea hay in the greatest abundance, and yet the average corn crop of the State is about 8 bushels per acre. We met a gentleman some years ago on the train near Spartanburg, S. C. He said that he came there from the North a few years after the war, and began to farm for wheat, corn and clover. He said that his neighbors told him wheat could not be grown successfully there, and his first crop looked like it, for he grew but six bushels. But he went on with his regular rotation, but abandoned clover and put in peas, because he said he could work faster with peas, and the year I saw him he said that his wheat crop was 35 bushels per acre, and he believed that he would in a few years get 50 bushels. When the grain crops in a rotation get to anything like these figures, these crops cease to be looked on merely as "supplies" and assume a character as sale crops and profitable ones. Let us study the wonderful capacity of our Southland and make her blossom as a rose by real and good farming.—W. F. Massey, in Christian Advocate.

THE FARMER AND THE TRUST.

In a letter to the editor from Thos. Keady, Secretary of the Illinois State Grange, that keen observer of the tendency of things says:

"We have long boasted about the home owning and independent farmer being the conservative bulwark of the republic, and should be on the alert for a continuance of conditions so full of the promise of peace and safety, for the trust makers are abroad in the land and are consolidating their colossal millions of money to control our American industries. What if these greedy grabbers should mark agriculture for their prey, absorb the farms and turn the farmers into wage workers, with a woeful burden of strikes, lockouts, blacklisting and subservience to money king bosses? Is there anything more than a fancied danger in that direction, and do the farmers think it worth while to bother their brains with considering the outlook and the outcome of trusts?"

Some of our readers may smile at the thought that the great agricultural interests of this land of the free could ever be absorbed by the great conspiracy of wealth which is now making it more and more difficult for the individual business man everywhere to continue in trade. We are not alarmed at any immediate prospect in this direction, but we do not conceive it to be an absurdity to say that such a result is possible. The commercial side of agriculture is steadily developing; the farmer is becoming more and more involved in the complexities of commercial life. For instance, the farmer who skimmed his cream and made it into butter a few years ago now is a factor in the commercial enterprises which supply the world with its butter and cheese. In one Illinois city a condensed milk company has refused to accept any milk from a certain breed of cows, compelling many farmers to sell their herds and buy other breeds at a great loss, although the ultimate results may be well. We cite this instance to show the power of organizated enterprises to force their pecular rules upon others.

The sugar trust already is conspiring to render the hopes of the farmers in the direction of beet sugar impossible of realization, and now controls most of the factories west of the Missouri, save those belonging to the Spreckles. It was as easy to do that as to form a soap trust. Billions of money are lying idle in the banks of the country. If the conspirators against the people should find it to their advantage to control wheat production in this country, there is no doubt they could do so within a years. They know how to put on the screws in just the way to bring about desired results, and the billions would be theirs for the asking. Already whole counties in Illinois are owned by alien landlords, of whom the trust is a natural ally.

We speak only of the possibilities of the case. But this we may say: If the farmers of the country desire to make such results absolutely impossible they must get together and stand as a rock against the further encroachments of this system so long as it is conducted for the benefit of the few and against the welfare of the common people. They must do more than get together. They must join hands with honest producers everywhere and stand with them in a common interest. Just so far as the trust teaches the lessons of co operation, it is good. But to day it is in evil hands; greed, desire for power, dominate it everywhere. The people should take the principle of the trust and make it their own, having for their great purpose the good of everyone, equal and exact justice for all. This is one of the results The Farmers' Voice hopes to see flow from the new farmers' movement just now being inaugurated in this State.—Farmers' Voice.

THE RELATIVE AGRICULTURAL RANK OF DIFFERENT STATES

The estimate of the Department of Agriculture of January 1, 1899, of the crops of the year 1898, furnishes some interesting reading, says Wallace's Farmer. Iowa leads all other States in corn by nearly 55,000,000 bushels, Illinois being second, and the value of its corn is about $8,000,000 more than the State just mentioned.

In wheat, Minnesota takes the lead with 78,000 000 bushels, followed by Kansas with 64 000,000 bushels, and North Dakota with 55,000,000 bushels. Minnesota leads all other States in value to the amount of about $10,000,000.

In oats, Iowa leads Illinois, the second State, by 45,000 000 bushels, and her production is almost equal to any other two States put together.

In rye, Pennsylvania takes the lead with 4 447 000 bushels. New York is a close second with 4,014 000 bushels and Wisconsin third with 3,444,000 bushels.

In barley, Minnesota takes the lead with 9 160 000 bushels; Iowa a close second with 9,133,000 bushels.

The Western States are not in it when it comes to buckwheat, Pennsylvania leading with 4 085 000 bushels, and New York a close second with 4,068 bushels, each one of them exceeding the entire yield of all the States except the other.

In Irish potatoes, New York takes the lead with 24,000,000 bushels, Iowa following with 16,000,000, Wisconsin next with 15,000 000, and Michigan with 14 000,000 bushels.

In the production of hay, Iowa again leads with 7,908,000 tons; New York second with 6 410,000 tons.

In live stock, Texas leads in the number of horses with 1,137,000, Illinois second with 1,003 000, and Iowa third with 981,000.

In mules, Texas leads with 266,000, Missouri following with 183,000.

In milk cows, New York leads with 1,458 000, Iowa second with 1 250,000, and Illinois third with 1 000,000.

In "other cattle," Texas leads with 4 533 000, Iowa second with 2,163 000, and Kansas third with 2 075,000.

In sheep, Montana leads with 3 377,000, New Mexico second with 3 128,000, and Ohio third with 2 730,000. The agricultural States are not in it when it comes to sheep.

In hogs, Iowa leads with 3 408,000, Missouri second with 2,949 000, and Texas third (a matter of some surprise to us) with 2 684 000. It may be news to our readers that Georgia, Alabama, and Mississippi have each more than half as many hogs as the State of Iowa, and North Carolina, South Carolina, Arkansas, and Tennessee each considerably more than a third. While there has been a decrease in the number of hogs in the United States, there is a gradual increase in the number reported from the South.

COWPEAS FOR SWINE AND CATTLE.

When cowpeas are planted for green manure, it is an excellent practice to turn hogs into the field about the time that the first peas are ripening, says a recent bulletin. Young pigs thrive amazingly on the succulent foliage and well filled pods, and the quality of the pork raised on such a healthful and nutritious diet is very fine. This is a profitable method of fattening hogs or of preparing them for topping off with corn or sorghum for market. An acre of ripening cowpeas will pasture from fifteen to twenty hogs for several weeks and the gain in fertility from the droppings of the animals during that period will more than counterbalance the fertilizing value of the forage eaten. The rapid increase in weight will thus represent so much clear profit, and the farmer is richer by half a ton or more of prime pork for every acre planted. Chickens and turkeys also eat the ripe peas and do well upon them. Cattle and horses are sometimes pastured on them, but the safer and more economical way of feeding the green cowpea vines to such stock is to cut or pull and feed partially wilted. There will be less waste and destruction from trampling, and if each animal is given only so much as it can eat clean, the greatest economy as well as greatest profit will result. Furthermore, cattle and sheep are liable to bloat if allowed to eat too ravenously of cowpea vines or any other rich and succulent forage, and by using it as a soiling crop the danger may be more readily controlled and the loss prevented. The report has been sent out from some of the Northern experiment stations, where this forage plant is not ordinarily cultivated, that cattle will not eat the green vines except after having been starved to it, and then only sparingly. We have seen Western horses and ponies that would not touch red clover or a grain ration of oats; and Eastern stock that would not eat alfalfa hay. But these few adverse cases do not prove that red clover, alfalfa, and oats are not good forage. With the cowpea the case is similar. It is very rarely that any Southern planter reports that this forage is refused by any kind of stock.