THE PROGRESSIVE FARMER

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

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PRACTICAL FARM NOTES.

Written for The Progressive Farmer by the Editor, and Guy E. Mitchell.

The August crop circular of the Department of Agriculture shows an exceedingly meagre clover crop for this year, in especial marked contrast to last year's generally large production. The quality of the crop also falls decidedly below last year's standard taking the country in general.

Secretary Wilson's recent severe criticism of methods of agriculture as he observed them in California and the need that her farmers should adopt stock raising and grass growing and do less of wheat raising without rotation, can be profitably considered by farmers of all sections. In other words the farmer must keep in constant mind the importance of building up rather than decreasing the fertility of his soil.

Green manuring is one of the best methods of insuring soil fertility, and fertility, and the legumes combine all the points required of a green manure plant, viz, the power to absorb nitrogen—the most expensive fertilizer constituent—from the air, deep rooting habits, and, at the proper stage of growth, that succulence which is conducive to decay, thus rendering the "manure" available at the earliest moment. An advantage in turning under a green crop which may not always be considered, is the fact that with a heavy green crop, many tons of moisture are plowed down per acre and left in such state that it will not be readily or quickly evaporated through the soil, but is gradually taken up by the roots of the new crop planted. Another advantage sometimes lost sight of is that when an acre of cow peas, for instance, are ready to turn under the manure is already spread—distributed evenly and completely the field over.

Consul General Mason, at Berlin, makes an interesting report to the State Department concerning Americans of cattle and fresh beef to Germany, Belgium and Denmark. The latest decree of Germany affecting American meats declares that fresh beef shall not be imported from Belgium. As Belgium has no surplus home grown beef supply to export anywhere, it was at once evident that the decree was in reality aimed at American beef and was occasioned by the fact that the Belgian Government, which has for several years past prohibited the importation of live cattle from the United States, has recently rescinded that restriction, leaving the butchers of that country free to impert at certain designated ports American cattle for immediate slaughter, and unless prevented by new regulations, to export the meat thus obtained across the frontier to Germany.

This latest decree is therefore the logical furtherance and fulfillment of a policy upon the German Government entered in 1894, and which has the following history:

During that year Texas fever prevailed among cattle in certain districts of the United States, and the Agricultural Department at Washington had during several years previously the subject under careful and thorough scientific investigation. One vital point upon which these studies hinged was whether Texas fever is or is not a bacterial disease. In the former case, it might be asserted that there was great danger of its transmission through flies from fresh slaughtered beef to live cattle; while, if the view maintained by the Department of Agriculture was correct—namely, that the disease was due to a protozoan parasite and was transmitted, not from slaughtered beef, but from animal to animal by means of cattle ticks—there could be no danger of the introduction of this disease into any foreign country through the medium of fresh beef. Furthermore, if the views of the Department of Agriculture are correct, there is no danger of its introduction even from imported live cattle, since, as a matter of fact, the cattle exported to Europe are not taken from the Texas fever district in the United States.

After a careful scientific study of the subject, the government experts decided that Texas fever was not a bacterial disease, and therefore not susceptible of transmission by means of slaughtered meat. The judgment of the Agricultural Department concerning the nature of Texas fever is now generally accepted by scientific men and has been confirmed by the investigations of a government commission in Australia, and later by the studies of Prof. Koch, the eminent German bacteriologist, which have been made in Africa.

But in 1894, the German Government, assuming the disease to be of a bacterial nature and therefore transmissible by the meat of diseased cattle, issued, on November 10th, of that year, a decree forbidding the importation into Germany of live cattle or fresh beef of American origin, and this prohibition has since been rigidly maintained.

Belgium, Denmark, and other neighboring countries followed the lead of Germany in this policy and American cattle and their flesh in a fresh uncured state were practically excluded from continental Europe. Great Britain, however, took measures to ascertain that there was no real danger from Texas fever and continued to permit the importation of American cattle and cold storage beef, with the result that the British public has enjoyed for years past a constant supply of excellent beef at prices which have been a boon and blessing to the people and which would have been impossible had the American supply been excluded.

Belgium has a dense population of working people; her food import is necessarily large and constant. The Belgian Government has seen how safely and economically the people of Great Britain have enjoyed American beef, and after some hesitation and discussion has annulled its restrictions against the import of American cattle, with the result that Germany, fearing that such meats may now enter Germany by way of the Belgian frontier, interposes the present decree shutting off all imports of fresh beef from that country. The new restriction will therefore make no change in the amount of cattle and fresh beef exported to Europe from the United States. It is aimed at a traffic which does not exist, since there has been hitherto practically no export of fresh beef from Belgium to Germany.

But where the recent decree will do American interests most injury is in Denmark, which country is ready to follow Belgium's lead in admitting American cattle, but hesitates to do so for fear Germany will, in such event, promptly shut out fresh meat imports from Denmark. The German decree has therefore the direct effect of excluding American cattle from Denmark, which country, there is good reason to believe, would otherwise admit them as readily as England has done for years and Belgium has now consented to do.

Meats of all kinds are costly in Germany because the home supply is wholly inadequate to meet the demand; and notwithstanding all the existing restrictions and the efforts of the agrarian press and butchers' associations to resist imports of meat and lard, especially those of American origin, the trade continues to be enormous and is steadily increasing. It is noted that the customs duties from this source during the past six months showed an increase of $992 415, which represents an augmentation of about 54,012,700 pounds in the amount imported. This increase includes mainly canned meats and sausages, which leads the Deutsche Wacht, at Dresden, to anxiously remark that such an unrestricted influx of prepared meats will work ruin to German agriculture and the slaughtering industry.

FARM AFFAIRS.

NECESSITY FOR AGRICULTURAL LITERATURE AND IMPROVED FARM MACHINERY.

Sixteen and twenty years back I told the farmers of this country that to compete with the Western small grain wheat growers and the cheap wheat being raised in India they must and would have to use improved machines to prepare their lands, sow, reap, bind and harvest it, and The Cultivator Company printed this business circular I send you for me in June, 1883, wherein I told the farmers then that they would be forced to use the improved implements or be driven out of the wheat markets, etc.

Farmers hereabout have only within the last three to four years seemingly come to realize these truths predicted and pointed out to them in 1883, and now, when poverty compels them, are purchasing mowers, binders, seed drills and improved machinery pretty generally.

If you could get the farmer to read good agricultural and other papers we might hope to see him lifted out of the mire and clay of despondency and placed firmly on the rock of prosperity and happiness; but you, Mr. Editor, can never do this with them as long as ignorance is blissful with them, and this is true with most of us farmers; we count it foolish to grow wise and get wisdom from taking and reading good agricultural papers. There is not a single issue of many an agricultural paper that any good intelligent farmer could read and not be able to find in it truths, facts and information worth to him more than the one dollar subscription price of it for twelve months; and notwithstanding this patent fact let me present an issue to my farmer neighbors and friends and they will almost turn up their noses in holy horror at the thought of patronizing book learned farming, although they ought to have sense enough to know that if they did not have God's Bible to read and its teachings imparted to us they would be ruined mentally, morally, physically and financially, and at last land in hell where the worm dieth not and the fire is never quenched.

You can't nor I can't get the farmers, at least nine tenths of them, to ever see Billy Patterson before he has knocked them and their daddies down and gone and left them down to stay.

Mr. Editor, the principle of free coinage of silver I favor and like it, because it would put and keep in circulation a larger volume of money never to be withdrawn from trade, and all men must know the need of this; but I assert it emphatically that the free coinage of silver, except as a great and vital issue of keeping our money values on the increase instead of decrease, is one of the least important and vital financial issues we have to contend with; and unless political lines and financial measures are very much changed in the interest of the masses, instead of as they are run now for the enriching of the classes, in less time than twenty years from this the American farmers will be degraded and enslaved under the rule of a merciless and soulless moneyed oligarchal sway. Mark my prediction in this and see what is in store for us twenty years hence without a vital change for the better in politics in every shape. This ruin that is in store for us as a nation will fall to one man's share to day and another's on to-morrow.

By united, concerted and intelligent action we farmers could save ourselves and our children and their children from this ruin and enslavement to the moneyed oligarchs of this country.

Eighteen or twenty years ago, after being told by my brother in law not to do so, that it was a failure (he being a general agent for a disk harrow company, and had traveled over Georgia, Alabama, Florida and South Carolina to sell and introduce them) he telling me he had found them in all these States abandoned and thrown aside as worthless farming implements, I bought a Keystone hay loader. I inquired of him his reasons and farmers' reasons why they were useless, and from what he told me I readily saw that this fault was not due to any defect in the hay loader, but was due to improper and unintelligent use of it.

I have used that hay-loader ever since then in gathering my hay crops, and never have used any agricultural implement that has given better satisfaction or paid me as good returns for the money invested in it as that hay-loader has, and this proves this fact, that in ninety-nine out of a hundred times the reason why improved machinery on farms does not pay and is counted worthless is the result of ignorance in handling and using it, and this is attributable to the want of education, as you say in your last April editorial or this line.

Twenty years from to day when how to make and save hay is pumped into the heads of farmers, a good hay loader will be counted at its real value and used by all intelligent and successful farmers on their farms; and so will all other improved implements be used and not abused by farmers and laborers.

Only by and with the intelligent use of the mowing machine, hay-rake, hay-loader, hay-forks and hay carrier can the farmer make the raising of grasses and calves and taking care of them in due season be easy, profitable and pleasant work on the farm; and each and every one of these implements is essential, needful and profitable (with a good hay-tedder added to this list if the crop mowed is a heavy or fine one); and not one of these implements pays better than a good hay-loader or saves more hard and hot work; true it is that for a few minutes' time in placing a load of hay carried up by the loader there is good hard work for two good stackers to perform in properly placing it on the wagon or else they will be covered up and overrun if they are not quick good stackers.

A splendid hay press can be made to pack this hay in and drive him to market on four legs in improved breeds of cattle, swine and sheep; and the manure they leave behind them will enrich the soil the hay has been mowed off of, leaving Georgia farms and farmers enriched thereby; instead of growing cotton at 4 to 6 cents a pound and paying it out for guano to make more cotton and impoverishing farms and farmers.—J. G. B. Erwin, Sr., Erwin, Ga., in Southern Cultivator.

In these days when so much is heard about the impoverishment of ordinary flour through excessive refining, shreded wheat biscuit is a product unique in that it is a completely cooked whole wheat food. In its preparation the wheat grains are boiled in water until they are somewhat soft, then they are passed through a machine wqich reduces them to long filaments or threads, resembling in general appearance fine macaroni. These filaments as they come from the machine are laid lightly one upon another until they are built up to the requisite height, when they are formed into small loaves resembling biscuit and baked until brown. The baking process is followed by another process that subjects the biscuit for about five hours to a dry heat at a temperature sufficient to raise them to a desirable degree of lightness, the shredded whole wheat biscuit manifestly preserving the composition of the whole wheat berry, with the exception of the slight solubility of any of its outer constituents in the water which is employed. The lightness of the biscuit is secured without the use of yeast or baking powder and is short without lard or any substitute therefor.

THE FARMER AND HIS ENEMY.

It is surprising that the farmers of this country, representing as they do the balance of power in all political centers, should continue to be at the mercy of political schemes and middle men. Ever since the dawn of agriculture the farmer has been looked upon as a fit subject for the different kinds of the human carnivora to feed upon. Having for centuries stood alone, without any kind of organization, ignorant and at war with everybody, the only reason for his existence to day is that as a producer of the necessaries of life his place cannot be filled by any other trade or profession. We read so often how the farmers are working up and will soon show their power and position in the country's politics; yet at election day the dream of independence has vanished away and the stern reality appears before us that the condidates we expected so much from are simply mere automatons in the halls of our legislature or on the floor of our national congress—gloomy prospects for the future indeed.—Andrew J. Gilson, Cheshire Co., N. H., in Farm and Home.

TECHNICAL EDUCATION FOR THE FARM.

Every one will readily admit that the farmer is not hurt by education more than other men. There is a small current of feeling abroad that a man's chances to succeed in rough and-tumble business is rather diminished by the polish of higher education, writes the editor of the Southern Cultivator.

It is not our purpose to argue that question here.

A great many freely admit that the farmer should have as much education as those who follow other pursuits. But they are wont to claim that it should be the same as that given to others. We beg to enter our protest against this position. Every one admits that a man should take a special course in medicine or law before he is fitted to practice either. The laws of the land compel him to do this. But many think any man can practice farming without any special training or education to fit him to do so.

This, we think, is a mistake. Farming, in the true sense of the word, is as much a science as medicine or law. To get the best results it requires as much skill. If a farmer has studied soils, plant life, plant food, plant growth, the effect of culture, and fertilizing and manuring, and understands the diseases of plants and farm animals and the remedies, he is likely to succeed; otherwise he is apt to fail. Some quacks are quite successful in law and medicine. So in farming. But these are the exceptions, not the rule.

So much depends upon the farmer and so many things are involved in his success that if there is a difference it is in favor of his having more education than others, instead of less.

He not only requires a fund of general information but of specific knowledge about his own calling.

The farmer should be taught how to farm. This should be done in the schools and colleges. Not in all, perhaps, but in many. Such knowledge would rapidly improve the farming methods and elevate and dignify the profession of farming. This would keep the boys on the farm. We mean by saying that boys should be taught how to farm, that it requires mental training as well as hand training to farm successfully. To illustrate, we take the corn crop. To grow corn so as to make it profitable requires a good deal of information.

First, how shall the land be prepared? Here we find quite a variety in opinions and practice. Many believe in bedding and planting in the water furrow. They claim ease of culture and deepness of rooting so as to help resist effects of drouth and blowing down by storms. Others favor deep breaking in the fall, breaking again in spring and harrowing smooth and level. They claim greater power to resist drouth and more access to water by the roots. Experiments have practically decided the points at issue. The question lies right at the doorway to producing the greatest crop of the country. It is particularly important that Southern boys should understand it. We are large buyers of corn. We should be large sellers. It is a great mistake for our boys to grow up thinking we cannot make money growing corn. Because we have not done so with our defective preparation and culture does not prove that we cannot do so.

There is no money in ten to fifteen bushels per acre. But there is in fifty to seventy five bushels per acre. Can we make the latter crops? The writer's experience says, yes. On poor Georgia lands it has been done. On the average land of the South it can be done When it is done there is money in growing corn. How can it be done?

This is the way we did it. You can do the same:

AN OBJECT LESSON AND ITS RESULTS

Riding through Nacoochee Valley in search of health, we saw a field of corn that was like a field of wheat, the tassels were so thick and level. We stopped and investigated and found that there were about eight thousand stalks per acre. The ears were full and heavy and many stalks had two ears. So there was about one hundred bushels of corn per acre. This was before our eyes and no doubt of it.

This was the object lesson. Now for the results. Our farm had been producing only about fifteen bushels per acre. What caused the difference? It was evidently a question of water and plant food. We had been taught that each stalk must have about twenty feet of room. If planted close together they would fail to make ears for want of water.

But here was the contrary. No stalk seemed to suffer for want of water. Wherein did this land differ from ours? We soon concluded that the difference must be in the depth of the soil. The surface area of an acre was the same in this field and in our own. It must be in the deepness then.

Having decided this point we concluded to try the experiment. We plowed thirteen inches deep; manured pretty heavy with compost of lot manure and cotton seed and acid. In doing this we broke through the hardpan, which was about four inches thick and had prevented the earth water from rising to the surface and at the same time prevented the roots of the corn from going down into the earth as they desired to do.

We planted a little over four thousand stalks per acre and made forty-five bushels per acre. This pleased us so well that we plowed deep again, harrowed oftener, and put on 7,000 stalks per acre and made sixty to seventy five bushels per acre year after year.

The corn stood dry spells better than the old way had done. There was less firing of fodder. This was particularly noticeable after we began putting all the manure broadcast, which we soon learned was best.

By the deep plowing we increased the amount of plant food which was soluble in water and increased the quantity of water with which to dissolve it, and greatly increased the depth of the soil in which the corn roots could go in search of food and water. While we greatly increased the number of stalks per acre we at the same time increased the actual feeding room of each stalk.

In the old way each stalk had about four cubic feet of earth and in dry spells nearly all of that was too dry to furnish food or water.

By the new way each stalk had about six cubic feet to furnish food and water, with a free connection with an inexhaustible supply of both just below.

THE POINT OF ALL THIS.

We found this out at great expense and great uncertainty as to final results. We were then in middle life. Half of our opportunity gone. We should have been taught all this in school. Then we could have started life so differently. And life would have been so different. A vast majority of Southern farmers have not learned this lesson yet. They still skim the soil, plant corn wide apart and make ten to fifteen bushels per acre and keep poor. The poor farmer makes and keeps his farm poor. It is not his fault so much as his misfortune. He has never enjoyed the privilege of technical teaching, He farms largely by guess. Not knowing that corn roots would go from four to six feet deep if the hard pan was broken up, he has tried to make his corn a shallow rooted plant and the corn has objected.

FIELD PEAS FOR SHEEP.

There is no better food for sheep than Canada field peas and oats. The sheep are very fond of them, and the two can be raised together at as little trouble and expense as almost any other food. The peas and oats should be sown in the field together, and as the oats will hold the pea vines up, the two can be cut with a mower. The proportion of seed should be about two bushels of the small Canada field pea to one bushel of oats to the acre. The oats should be chosen with special reference to the straw, which should be stiff and not weak, for its main purpose is to provide a support for the peas.

Pretty good land should be used for this planting, and corn stubble is best if it is ready. The ground should be plowed and harrowed early, and as soon as it is in good working order sow the peas. The peas should be covered under with at least four to six inches of soil, which can best be done by plowing and harrowing after the seed is sown. At the end of a week sow one bushel of oats, and give another thorough harrowing, or this work need not be done after the peas are sown; as one harrowing will do for both crops. This will leave the peas deep in the soil and the oats near the surface. This late harrowing after the oats has been sown will not hurt the

[CONTINUED ON PAGE 8.]