

PROGRESSIVE FARMER

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

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Agriculture.

NEWS OF THE FARMING WORLD.

Washington Correspondent Tells What Progress is Being Made in the Various Sections of the Country.

Correspondence of The Progressive Farmer.

The oleomargarine bill has passed the Senate by a majority of eight votes and now it will go into conference with the committee of the House of Representatives. The bill as passed by the Senate is a better one than that offered by the lower body of Congress, inasmuch as it does not leave any loop-holes for violations of its statutes. The House will only stipulate that oleo colored yellow in imitation of butter should be taxed heavily, not providing for any emergency of butter colored orange or any variations of that shade. The Senate bill provides a tax on oleo into which has been mixed any artificial coloring matter that causes it to look like butter. The manufacturers of process or renovated butter must pay an annual tax of \$600, the wholesale dealers must pay \$480 and the retailers a tax of \$48 per annum. A tax of ten cents is imposed by the provisions of the bill upon adulterated butter, and one-fourth of a cent a pound on renovated butter.

IRRIGATING ARID AMERICA.

Congress has given a good deal of attention this session to irrigation of the arid lands. What is known as the Hansbrough-Newlands bill passed the Senate by a unanimous vote and now before the House. This bill provides, in general terms, that the proceeds from the sales of Western public lands shall be used for irrigation works. There has been some question as to how the bill in its present shape would work out, the large being made that the bill is so loosely drawn as to allow for speculation and land grabbing, instead of serving the reclaimed lands for actual settlers under the homestead act. The President the other day gave some of the Western Congressmen clearly to understand that the bill, to receive his support, must absolutely preserve the land to be irrigated for the use of the actual settler and "home-maker" as he expressed it. He also insisted that the irrigation works should be controlled by the government. The President is well known as strongly supporting the national irrigation proposition. In his annual message he characterized it as the most important internal question of the day and shows that while irrigation would help the West, it would reflexly be of great benefit to the entire country.

BOXES FOR RURAL FREE DELIVERY PATRONS.

The rural free delivery box commission, recently appointed by the Postmaster-General, to select an approved list of mail boxes for rural routes, commenced its sessions in Washington last week. The Commission is to decide the question whether the farmer must purchase a box of the pattern approved by the Department, or whether the Department should permit the erection of boxes by patrons who desire to select them without limitation or restriction. The Box Commission which met last year approved fourteen styles of boxes, one of which it was necessary for each rural patron to erect when a new route was established. At that time the rural free delivery system had not developed into its present magnitude. The rapid growth of the service during the last year has brought about conditions not looked for last year, and resulted in the selection of this Commission to determine whether the present system of box selection should be continued, or whether specifications for the building of boxes should be adopted.

MUCK AND BARNYARD MANURES.

Some experiments of the New Hampshire Station regarding the comparative values of muck and barnyard manure indicate but slight superiority of the former as a fertilizer. The conclusions drawn are that the value of muck is not sufficient to pay for any extended handling. These experiments ey-

dently do not take into consideration the wide variations in the composition of muck. Some muck is simply clay blackened by humus and containing a goodly quantity of grass and weed roots. Other muck, such as that for instance which is found in the Louisiana and Florida bay-heads is concentrated, pure vegetable matter—pure humus—and is of very great strength as a fertilizer. The best Florida mucks are worth, as fertilizers go, \$15 or \$20 a ton, dry. Their virtue is very great. No such muck as this, however, is ever found in the Northern States.

AN ENDURING WHITEWASH.

The woodwork of stables, fowl-houses and sheds of all kinds can be largely preserved from decay by continued whitewashing. An enduring whitewash used on some of the buildings at Washington is made as follows:

One-half bushel of lime slacked in boiling water in a covered vessel to keep in the steam; strain this through a fine sieve or strainer and add to it a peck of common salt, previously dissolved in warm water, and three pounds of ground rice boiled to a thin paste and stirred in while hot. Add also one-half pound of Spanish whiting and one pound of glue previously dissolved by slacking in cold water, and then melted in a glue pot. Add five gallons of hot water in the mixture and stir well. After being allowed to stand for a few days protected from dust, the wash should be applied hot. This mixture is some trouble to make, but where a good wash is wanted it is highly satisfactory.

THE VIRGINIA GOOD ROADS MEETING.

Under the auspices of the Jefferson Memorial Good Roads Association, the good roads people have been holding a sort of jollification meeting at Charlottesville, Va., where several members of Congress and government officials identified with the movement, gathered and spoke in praise of Virginia's movement to improve her country highways. The road which is being built at Charlottesville connects that town with Monticello, the home of Thomas Jefferson.

GUY E. MITCHELL,
Washington, D. C.

REMINISCENCES AS TO COTTON.

Correspondence of The Progressive Farmer.

Cotton has of late years been styled king of all farm products, but before the advent of this century cotton was almost unknown.

The cotton gin was not invented or discovered until about 1795, and it was a long time before the gin was common through the country. In the cotton region in North Carolina in 1840 I knew of but one gin in several miles of where I lived. In 1860 in the same territory, there were twenty five.

The cultivation of cotton has produced a wonderful change in our country, and the change has been for the better. Much has followed in its wake that has had an ameliorating influence upon the world. At the first of the present century and for a number of years, the price of cotton was high, and it paid well to raise it; but in 1845, after hauling it to market seventy-five miles, 4 1/2 to 5 cents was all that could be realized for it. Then up to 1860 the price ranged from 8 to 10 cents. Since the war it has been exceedingly variable, ranging from 50 cents a pound down to 4 cents.

In the olden time, 50 or 60 years ago, the task for a negro woman was to spin four to six outs of yarn a day; and one white woman (the name of Martha Callthrop) would cook her husband's dinner and tend to her child and reel her eight outs one day with another. J. B. ALEXANDER.
Mecklenburg Co., N. C.

The Committee on Premium List of the State Fair, Prof. W. A. Withers Chairman, is arranging the advance list for field and garden products, and the officers will revise this at once during this week. Farmers and others should send for the same to J. E. Pogue, Secretary.

IMPROVING POOR LAND.

Correspondence of The Progressive Farmer.

The question is often asked, What should be the first thing done to redeem a wornout field? In the first place, no land should ever be allowed to become so poor as to be abandoned and left to wash into gullies. Yet there are a great many fields in such a state that it does not pay to cultivate them unless a change be made in the mode of farming.

The first thing toward improving poor soil is to

STOP THE WASHING.

This can be done by making terraces with a fall of not over one and a half inches to every twelve feet; or by means of small ditches, though the former are better, as they do not take up any room from cultivation.

Care should always be taken in not plowing thin soil too deep. I have known poor fields made a great deal worse by being plowed in this manner and burying what little soil there was. It is a very good rule to plow shallow at first on thin soil and go a little deeper each year; that is, to turn up a little clay every year. By this process, the soil is deepened gradually.

We cannot make a large crop of anything the first year on poor land, no matter how much we may fertilize same, but at the same time, the poorest of soils can be made rich in a few years with care as to the mode of cultivation, crops planted and fertilizers used. No one must expect to make something from nothing; so if poor land is made rich it must be done so gradually.

HUMUS NEEDED.

Neither wheat, corn, oats nor cotton should be sown on poor washed land, as these crops tend to make it poorer. What is most needed is humus. We cannot grow legumes unless there is a liberal supply of potash and phosphoric acid in the soil. It is generally thought by some that a clay soil has enough potash and the only thing required is nitrogen and phosphoric acid, but my experience teaches me that this is a mistake. Of course, there is potash in the soil, but not sufficient nor available for the requirements of the growing crop.

To improve poor land at the least expense we must first begin by raising crops that do not leave the soil poorer when matured than when sown.

COW PEAS AND THE CLOVERS.

are great land improvers, but if sown on poor soil, and no fertilizer be used of course there will be nothing made. On the other hand take a poor piece of land, sow about four hundred pounds acid phosphate, two hundred pounds kainit and one hundred and fifty of cotton seed meal to the acre, sow in cow peas about last of May, out the crop when ripe, which will be in September. Harrow the ground well and sow in annual clover, using about three hundred pounds of acid phosphate, and one hundred and seventy-five pounds of kainit; the clover will be ready to cut about the middle of May; then sow the same land back in cow peas, using say two hundred and fifty pounds acid phosphate and one hundred and fifty pounds kainit. Cut the peas as before and sow annual clover. When this crop is out plow well, harrow thoroughly and plant same in corn, using some one hundred pounds acid phosphate and fifty pounds of kainit to the acre. By this process but little money is paid out for nitrogen. None is needed after we once get a crop of peas as they make nitrogen from the atmosphere, but should the first crop of peas be a poor one, it would be a good idea to use some nitrogen when the clover is sown.

When we have barnyard manure, a good fertilizer would be, to use fifteen hundred pounds manure, two hundred and fifty pounds of acid phosphate, and one hundred and twenty pounds of kainit to the acre, plowed in and harrowed well, when the peas are sown. I find that it is a hard matter to improve land under

THE TENANT SYSTEM.

Of course there are some who rent land and take care of and improve it, but the average tenant generally

leaves a farm poorer than he found it. The only true way to improve our soil is by hired labor and carefully managed. The average farmer knows how to make his soil produce better, but so many acres must be planted in cotton every year that it seems there is no time left for improvement.

I have often heard the question asked "Does it pay to buy fertilizers to put on a very poor piece of land? I cannot make enough to pay me for my trouble." This can be answered by saying, it does not pay if we expect to live through only one year; but if we wish to make farming pay in after years, as well as to-day it does pay; and pays a good per cent. No one can take a poor washed hillside and make it pay the first year, but if care be taken in stopping it from washing, using liberal supply of the proper fertilizer and raising peas and clover for several years, then afterwards putting corn or cotton on same land, there will be a wonderful improvement. It will be found that the money spent for fertilizers and labor came cheap in the long run. P. H. MANGUM, JR.

PROFITABLE STOCK RAISING IN ORANGE.

Interesting Experiments With Cattle and Swine.

Correspondence of The Progressive Farmer.

The interest in thoroughbred stock is increasing so rapidly in our State that I am moved to offer to your readers the results of my work.

First, with cattle: two years ago I bought an Aberdeen Angus bull. He was mated with Jersey cows, Holstein Friesian and scrub cows. Last summer the calves began to come—all black as crows and hornless; all short of leg and flat along the back. In other words, the bull had the power to impress himself, to transmit his traits through any sort of cow. This fact is most important.

I had seventeen of the black calves. They all stood in one stall and ate from one trough, just as close as sandwiches. No horns, hence no fighting. It is a beautiful picture. And how they eat! How they grow! These calves are now larger than some of my yearlings, although a year younger. They are the cattle for us.

Now for the pig. I set out to get a pig that would pay me one dollar per bushel for corn and wheat. The farmer can't raise grain for less, and as the merchant did not want it at this price, I was obliged to hunt a market. I have found it in the Berkshire pig. I took two average pigs, fed them thirty days all they would eat, and then killed them. I charged them 85 cents for corn (the market price), they paid this by their increase and had left a margin of one dollar and ten cents.

So this demonstrated that I had found my grain market. It is the thoroughbred Berkshire pig. If you have any corn and wheat to spare, don't sell it, but get you the right sort of pig and let him have the grain, mixed half and half. Get a pig with a short leg and a flat back and you will not regret it. The well-bred Berkshire pig is the farmer's friend.

There is another question that I hope to report on later. This is the sheep problem. We must have more sheep in North Carolina. First we must find the sheep that will thrive here. I am searching for a sheep that is adapted to Southern conditions and believe I have found him. H. H. WILLIAMS.
Glenborne Farm, Orange Co., N. C.

WILL TEACH ELEMENTARY AGRICULTURE.

The Summer School of the South, to be held at Knoxville from June 19 to July 31, will be unique in offering to teachers excellent courses in elementary agriculture and manual training that can be taught at almost no extra cost in the country schools by the regular teachers and that will link the work of the school room with the work of the farm. Much of our education has no connection with the everyday life of the community, and this step is for the direct benefit of the country boys and girls and is therefore in the right direction.

TOBACCO UNDER CHESEBLOTH.

Conclusion of Interesting Report of Dr. E. H. Jenkins on Raising Sumatra Leaf at Pequot County, Last Year.

The cured leaf was taken down in rather high case September 29. The primed leaf weighed, in the bundle, at the rate of 1258 pounds net per acre, less by 250 pounds than the crop of last year, when the plants stood 2 inches closer in the row, but which was calculated from only one sixth of an acre. The leaves were taken from the strings and sized without other sorting than to throw out badly torn or otherwise damaged leaves. The hands were then tied with bast fiber. The leaf could not be put into fermentation until December 4. Each lot was then carefully weighed before putting into the bulk. It has dried out somewhat and net weights were as follows: primed shaded Sumatra, 206 1/2 pounds from 7820 square feet of land, which is at the rate of 1150 pounds per acre. Shaded Sumatra cured on the stalk, 883 pounds from 32,300 square feet of land, which is at the rate of 1190 pounds per acre. Sumatra raised in the open field, set at the same distance as that under shade, cured on the stalk, 184 pounds from 6552 square feet of land, which is at the rate of 1223 pounds per acre.

The crop was fermented in bulk, the bulk being made December 4, 1901, 5 feet wide and 10 feet long. Fermentation began promptly and went on satisfactorily. The bulk was a very small one and not changed until December 19. On January 15, 1902, the bulk was taken down, and the leaf, now well fermented, was cased for shipment and sale. The leaf which was cured on the stalk was, of course, marked in the bulk and separated by strings from that which had been "primed" and cured on strings. Some shipped for sale was as follows: Of the stalk-cured leaf there were 133 1/2 pounds of 20-inch leaf, 219 pounds of 18-inch, 59 1/2 of 17, 50 1/2 of 16, 116 of 15, 202 1/2 of 14 and 44 1/2 of 13-inch, a total of 825 1/2 pounds. Of the primed leaf there were 31 1/2 pounds of 18-inch leaf, 44 of 17-inch, 50 of 16, 29 of 15, 16 of 14 and 11 of 13-inch, a total of 181 1/2 pounds. This leaf was packed in boxes, holding from 90 to 120 pounds each and handled precisely as the domestic leaf is. The prices asked were accepted by buyers with out objection, and indicate that those who bought a portion of the crop believed that it was worth at least as much as they paid.

As to the charges incident to putting up the shade and harvesting the leaf by picking the actual initial cost of the first year for these items was \$582.63 in our experiment per acre. Charging the first crop, however, with only 20% of the cost of frame and 40% of the cost of lath for hanging tobacco, the extra cost per acre, per year, incident to raising shaded Sumatra was \$326.68. It is, however, possible to reduce the initial cost in the first year to about \$450 per acre and the average yearly expense to about \$300 per acre.

The weight of the whole crop as it was taken down from the curing barn was not ascertained. Nearly two months later when the leaf was put into the fermentation it weighed at the rate of 1171 pounds net from an acre most accurately measured. Last year from a measured one sixth of an acre there were raised at the rate of about 1500 pounds per acre. Most growers this year report crops of from 1500 to nearly 1700 pounds. No doubt our own crop weighed some what more at stripping time than it did two months later when it was as sorted.

In the opinion of competent judges of Sumatra tobacco, the leaf raised by us under shade in 1901 is much better than that raised on the same land in 1900. The green colors, so prominent in 1900, are almost entirely wanting in our crop of 1901. The 1901 leaf has much more "body," elasticity, or "life" than that of 1900 and will, therefore, be more acceptable to manufacturers. It is equally important to note the defects. Our leaf lacks finish, the colors are rather dull and would be better if it had

still more "body." Careful tests showed that 1 1/2 pounds of leaf would wrap 1000 cigars. A leaf with more body, of which two pounds wrapped 1000 cigars, would, other things being equal, be preferable. The burn of the leaf is satisfactory and would improve by aging.

As to the stalk-cured compared with "primed" leaf, samples of hands of the various lengths, from both sorts, marked for identification, about a dozen hands in each lot, were submitted to Messrs. Darius Ferry, Jr., Seymour and Sutter Brothers of New York, with the request to decide which lot was the better. They were not told of the difference in the curing of the two lots. After full examination they unanimously agreed that lot A, primed, was decidedly better than lot B, cured on the stalk. Both lots were of excellent quality. The stalk cured had lighter color, but was more papery and had less elasticity and "body" than the primed leaf. Weight for weight, Lot A would cover more cigars than lot B. Unquestionably more leaf is damaged when the plants are cut than there is when the leaves are picked or "primed." Our experience shows that if the plants are cut they should be wilted on hurdles before carting to the barn, as in the unwilling condition they are extremely brittle.

Finally the real value and the standard price for Connecticut Sumatra has not yet been established, nor can it be until the leaf has passed from the dealer to the manufacturer, and has been worked into cigars and tested by the consumer. The verdict of all three is needed to fully determine the value of this new grade of wrapper leaf. At present, however, there is every reason to believe that the leaf can be sold at paying prices and that the new industry, first introduced by the experiments made by us in 1900, may be so managed as to be of great value to the tobacco growers of this state. So far there have been sold 90 pounds primed leaf at \$1.75 per pound, \$157.50; 90% pounds primed leaf at \$1.71, \$153.87; 90 pounds stalk cured leaf at \$2.10, \$225; 89 pounds stalk cured leaf at \$2.25, \$200.25; 101 pounds stalk cured leaf at \$1.40, \$141.40. Average price per pound \$1.91.

GRASS vs. LEGUMES IN THE SOUTH.

As a rule the Southern farm does not need grass, except as permanent pasture and meadows on fertile bottoms. The great need of the Southern uplands is humus, and this can be restored to the soil better with legumes in a short rotation than by grasses in a longer one. The legumes, and especially the cow peas and soy beans, will furnish all the forage needed while at the same time increasing the fertility and mechanical texture of the soil. The effort to get Southern farmers to adopt Northern practices will always fail, because of climatic conditions. Meadows on Southern uplands, with the grasses used in the North, will never be a success, and the constant advice given, by those not familiar with Southern conditions, to grow grass, is not good advice. Fortunately the Cotton States have, in Bermuda and Texas blue grass, the finest of grasses for permanent pasture, and on the moist bottom lands almost any grass will succeed and make profitable crops of hay. But even then they do not need grasses like the Johnson grass, which will invade the cultivated lands and become pestiferous weeds. What the Southern uplands need, as we have said, is a short rotation in which the cotton crop is grown in connection with winter grain, cow peas, crimson clover and corn, and cattle kept to consume the abundant forage that can be produced, and produce revenue while leaving behind manure for the land. The South needs farmers more than crops; men who will make use of the abundant resources for cattle food, and will use them to best advantage in reducing the cost of their staple crop—W. F. Massey in Practical Farmer.

A good road maketh a glad horse.