

PROGRESSIVE FARMER

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Agriculture.

HARRY FARMER'S TALKS.

LXX

Correspondence of The Progressive Farmer.
As we stated in a former article that we would give our opinion in regard to the decrease in the production of apples in the eastern part of North Carolina, we herewith give our own experience and observation, also that of others.

APPLE RAISING IN EASTERN COUNTIES

Soon after the Civil War you could find large orchards bearing nice apples. These trees were mostly grown at home, some grafted and some raised from cuttings. We have seen large trees grown from a switch planted deeply, leaving a few buds above the ground. A hill was usually planted and the timber cut off and partly cleared so that the land could be plowed. Sweet potatoes, being the first crop planted, the land had to be very well grubbed so that the beds could be made up. By this means the land was well subsoiled the first year. After this

THE ORCHARD WAS PLANTED IN VARIOUS CROPS

and manured with the best manure made on the farm. There was no commercial fertilizer used. If the crop was corn, it was planted early in March and always killed up by the fourth of July. A farmer who failed to kill his corn by that date was considered far behind. Potatoes were planted in April and laid by in June. Wheat was planted in the orchard. Occasionally a crop of rye followed the corn, the rye being sown early in November.

In notice that the land was never cultivated after the first of July, which gave the trees a good chance to mature the wood. Land was usually cultivated two years in succession, and when it was done a heavy application of manure of some kind was given the second year. Farmers thought it was impossible to be successful and crop the land every year. This kept a large amount of humus in the soil, for the land always would have a heavy growth of weeds and grass on it the year when it was not cultivated. Some times a few calves and pigs were pastured, but not enough to do any serious damage.

It is our opinion that the lands being treated this way was the best for the apple trees. The thorough cultivation given crops to-day is not best for fruit trees. The heavy use of commercial fertilizer we all know will quickly exhaust the humus or vegetable matter in the soil. We

TOOK AN OLD APPLE ORCHARD

and gave the trees a good pruning, whitewashed the bodies with lime and sulphur and then planted the land in cotton, using commercial fertilizers very heavily and the next year had a nice crop of apples. We planted cotton in it for two or three years in succession, using guano and kainit freely, and the fourth year the trees nearly all died. We had some young trees and they soon died also.

Mr. F. on the other hand, had an orchard that he planted in sweet potatoes nearly every year and manured them with the best stable manure. He had a heavy crop of apples every year. He had them when other farmers failed. After he died, the land was planted in cotton and about 200 pounds of guano applied to each acre, with the result of dead trees. Other farmers have done the same thing. The best agricultural

WISDOM ADVISE

CULTIVATION AFTER THE FIRST OF JULY.

The introduction of new trees from districts which have diseases among the trees has helped to destroy our orchards. Farms being separated by woods kept diseases from spreading, but since the timber has been cut away and fields join, there is nothing to prevent wind and various things from carrying any disease from orchard to orchard.

The land should be kept fall of vegetable matter and the trees sprayed every year thoroughly, if any success with apples or other fruit is expected.

HARRY FARMER.

Columbus Co., N. C.

NEWS OF THE FARMING WORLD.

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

Correspondence of The Progressive Farmer.

The Department of Agriculture has now in press Farmers' Bulletin No. 149, which is devoted to "Experiment Station Work."

In it are described various subjects of interest to farmers, among them being "The Value of Muck or Peat" as a fertilizer as tested by the New Hampshire Experiment Station; "Improved Culture of Potatoes" being experiments by the Cornell Experiment Station; "The Farmer's Vegetable Garden," in which is given data showing the cost of a vegetable garden which the farmer might conduct to supply his own table with fresh green truck the year round; "The Shrinkage of Farm Products" experiments by various stations in the United States; "Transplanting and Manuring Musk-melons" from the Arkansas Station; the best "Soils for Strawberries" shows the general conclusions arrived at by various stations as to what they consider the best soil and fertilizers for largest yield and finest quality of strawberries; the Vermont, Kansas and Wisconsin Experiment Stations send in reports on "Plum Culture." Other subjects treated are "Methods of Growing Onions," "The Digestibility of raw, Pasteurized and Cooked Milk," "The Dairy Cow and the Weather," and "Feed Mills and Windmills." The bulletin is free to farmers upon application to Members of Congress or the Secretary of Agriculture, if you do not like your Congressman.

ADVANCE IN PRICES OF BUTTER AND BEEF.

A story is going the rounds of the Capitol which has caused more than one statesman to see double. Many of them are now wondering whether in falling over each other in their endeavor to protect the cow, they have not thrown a boomerang which will in the proverbial way come back and thump them in the short ribs. Since the passage of the Oleomargarine Bill, two very important and necessary commodities have risen in price considerably. Beef has advanced all the way from \$1.50 to \$3 per hundred in the carcass, while butter is five cents a pound dearer than it was a week ago.

The theory is advanced that the beef men are going to make the general public pay the tax of 10 cents a pound on oleomargarine colored in imitation of butter, and this they accomplish indirectly by raising the price on beef.

As for the cause of the advance in price of butter, that too is explained. Since butter is now protected from competition with cheap oleomargarine, the dairymen know that they can get better price for putter. If the ordinary oleo which is sold to-day for 25 cents a pound is made to pay a tax of ten cents, then the retailer must charge at least 35 cents a pound for the same margin of profit. This is much more than was asked for butter a week ago, but now the price asked for butter is equal to that amount and the purchaser will always favor the pure article.

Congressmen who opposed the Oleomargarine Bill no doubt will have trouble when election time comes, and now those who favored its passage may find themselves in the same boat.

The House Committee on Agriculture in order to expedite the

FINAL DISPOSITION OF THE OLEOMARGARINE BILL.

has decided to recommend the acceptance of the Senate amendments which prevented any loop-holes for violation of the law.

Inasmuch as the Senate has made some changes in the method of fixing the tax, the opponents of the bill claim that the new amendments must be considered by the House of Representatives in Committee of the Whole, since under the Constitution all appropriation measures must originate in the House of Representatives, unless a special rule is adopted allowing the bill to be accepted as amended by the Senate. They claim that such a rule will not

be given, in consequence of which another fight may be on in the "quarreling body."

A WELCOME DECISION AS TO R. F. D. MAIL BOXES.

The commission of postal experts which has been investigating the question of letter boxes on rural free delivery routes has submitted its report to the Postmaster-General. The recommendation of the commission will be welcome to farmers all over the country, who at present must purchase their boxes from one of the fourteen manufacturing establishments approved by the Department. The commission believes that the farmers should be allowed to use any boxes they desire so long as they are made to meet the requirements of the Department as to size, shape and materials.

GUY E. MITCHELL.

Washington, D. C.

A NEW INDUSTRY FOR THE SOUTH SUGGESTED.

Superintendent McNair, of the Southern Pines Experiment Farm, Talks of the Profit in Raising Early Lambs for Northern Markets.

Correspondence of The Progressive Farmer.

An industry which should be taken up by the Southern farmer is the industry of raising "hot house lambs," so-called. The name is really a misnomer, for no hot house is used nor any artificial heat, for a "hot house lamb" is only a lamb which is dropped in November or December and forced to be ready for market in February or March. The raising of Christmas lambs is only another phase of this business. That the South has great advantages in this business, ought to be apparent to any one who knows sheep. Early vegetables and early fruits are already raised on a large scale in the South for the Northern markets and there is no reason why early lambs should not also be produced on a large and profitable scale.

Let the reader bear in mind that "hot house lambs" sell every year in the big Northern markets during February and March for prices which range from \$6 to \$12 per carcass; such carcasses dressing from 30 to 35 pounds.

With the mild winters which the Southern States possess; a climate which permits much open field grazing and which calls for only a small expense to provide suitable shelter it is singular that the Southern farmer has not developed this business already. It cannot be said that the South lacks the right kind of grasses and forage crops for sheep, for it is not true. On the contrary, the South can raise as many pounds of good sheep feed per acre as the North and probably more. The South may not have as good a grass for permanent pasture as the blue grass of the North, but the day has passed when it is necessary to depend upon permanent pastures either for sheep or cattle.

More feed can be raised on each acre of ground by growing a succession of forage crops, each in its season, than by depending upon any permanent pasture. It is the *ignis fatuus* of modern agricultural thought that permanent pastures are a necessity in the livestock business or even that they are advantageous except in special cases or over limited areas. It has scarcely dawned upon the average farmer that there can be produced three times as many pounds of digestible nutrients per acre in such crops as cow peas, velvet beans, soy beans, the vetches and clovers, alfalfa, the sorghums, corn, rape and cabbage as in the far-famed blue grass.

Prof. Thos. Shaw, at the Minnesota Experiment Station, has grazed sheep from May 1st to November 1st on such crops as rye, sorghum, rape, corn, oats and peas, barley, cow peas and cabbage and obtained results which would astonish a blue grass farmer.

The time is ripe for Southern men to take hold of this business and push it as they are pushing their manufacturing interests.

A. D. McNAIR.

Moore Co., N. C.
Alms are but the vehicles of prayer.
Dryden.

RESTORING A WORN-OUT FARM.

I do not doubt that a great many of your readers are getting to a point when they begin to think they must do something to restore the falling fertility of their farms. If they are not they ought to be, for I know by my own experience that it is much easier to keep land rich than to make it so again after it has been badly run down. I will, therefore, give your readers some of my experience in putting back into the soil the fertility it had lost, and hope that some may be wise enough to take warning and begin to feed the land before it gets hungry.

I inherited a farm in Virginia. The land had been in cultivation over two hundred years and all the virgin strength was gone even before my father bought it sixty years ago. But he was a man of wealth as well as a good farmer and it was not hard for him to make the land rich again, but he had slave labor and used hundreds of tons of guano. When I got possession, it had been in the hands of a very poor manager for many years and was poorer and had more gullies on it than when my father bought it. Still I tackled the job with the determination to make it what it was in my boyhood.

The first thing to be done was to divide the farm into suitable fields and get more sheep, hogs, cattle and horses, for there was very little stock on the place. The next thing was to build a roof over the barnyard so as to protect the manure from leaching rains. Then as fast as I could, I had the undergrowth, pine, willow and persimmon, grubbed out and the gullies filled up. All this was done by the regular hands of the place and did not cost very much. All this had to be done you see, before I could even get in shape to begin the improving of the soil.

The land nearest the house was not a very difficult problem, though some of it was awfully poor. I divided it into lots of three to five acres, planted it in different crops for hog pastures, using some fertilizers and some manure. The crops I used were crimson clover, winter oats, Canada field peas, early corn, cow peas early and late, soja beans, and sweet potatoes. I got two crops off each lot as the later crops followed the earlier ones. My hogs ran on the different lots in succession, and were fed some grain all the time. I kept an account with them, everything except the manure and fertilizers, and the pork cost me \$2.25 dressed, and I sold it for \$4.25. Two or three years of this treatment, taking nothing off but pork, improved the lots so rapidly that it hardly looked as if they had ever been as poor as death. The amount of stuff left on the ground to be turned under, soon filled the soil with humus and then I began to get the full benefit of the fertilizers used, and the crops of all kinds, in three years' time, got to be very rank. Then the land was devoted to growing tobacco, which is the most profitable crop to grow in that section, and more was fenced for the hogs.

The farthest outlying land was used for sheep pasture, but as there was a great deal of it, I grew a lot of as fine sheep as I ever saw, without any feeding to speak of except when the ground was covered with snow, which was very seldom. I never did do anything more with that part of the farm, so will not refer to it again. But the remainder of the land to be devoted to cultivation was a hard problem. Where the soil was washed off entirely, or the gullies filled up, there was no humus at all, and I noticed the first year that nothing would grow on such absolutely bare places, however much manure or fertilizer was put on them.

For such places I found that the only thing to be done to get a start, was to get some vegetable matter into the ground. And the best way to do it is to spread over the surface just as early in the season as possible, as much straw, weeds, grass or any other vegetation as can be had, keeping the land shaded during the summer, then plowing under in the fall

and sowing to oats, rye, or something else, to be grazed off or plowed under early in the spring.

I had some of those galled spots in a field of tobacco, and quite an area of it was in some fields sowed to cow peas. All of it was both manured and heavily fertilized, but the first year these spots did not make either tobacco or peas six inches high. It is absolutely necessary that there shall be some humus in the soil or you cannot make a crop. After learning that, I made it a rule to spread my manure on the land that had the least vegetation in it and put the fertilizers on most liberally where the soil had not been so badly washed. After once getting the soil pretty well filled with humus, it began to respond very well to fertilizers.

The rotation in common practice in that section is tobacco, wheat and clover on the best land, and corn followed by oats on the rest. The best farmers also sow clover on their oats. I adopted the rotation for my tobacco land and after my wheat, got a fine stand on clover the first year it was sown, and on land that was as poor before as it could well be. Some of my wheat too was very fine. My conclusion after two years was that the soils with clay subsoil was chiefly deficient in humus and nitrogen, and that the supply of potash and phosphoric acid was fairly good still. I therefore came to rely mainly upon clover and cottonseed meal, they being both very rich in nitrogen.

In buying fertilizers I always bought the ingredients and mixed them myself, so as to be sure of getting what I wanted and paid for. I also found that having the barnyard manure fully protected I got a great deal more and very much better manure. When it is under cover, however, one must be careful that it does not heat and become fire-fanged. For this is more destructive of its value than washing.

Pursuing the plan mapped out above in three years, the old farm began to look like another place, and when finally business interests elsewhere induced me to sell it, was so vastly improved in appearance and in fact, that I sold it at a fair price with very little trouble.

There is but one other point that is worth mentioning in this connection and that is that in some cases as I wished to follow one hoed crop with another, I sowed on the land a crop of rye in the fall and plowed it under in the spring. I found that it would, if plowed under about knee high, rot in a few weeks and would keep the land mellow and moist all summer. As this keeps the land supplied with humus, it is a great thing to do.

I believe the plan I have outlined will work well anywhere and is worthy of a trial by all who begin to think they must do something to help their land.—G. M. Baxter, Campbell Co., Va., in Journal of Agriculture.

THE SOUTH NEEDS PASTURES.

Secretary of Agriculture James Wilson, in speaking of the needs of the South the other day, among other things, said: "You need pastures more than any one thing I can think of; good pastures; drouth resisting pastures; pastures that always have some plant at its best; pastures that last through winter; grasses that shade the soil from the sun in the summer, with legumes that feed the grasses from the air with nitrogen, that fill the soil with roots to enable it to resist drouth. When you solve the pasture question the lands of the South will double their yields of crops of all kinds. The Department of Agriculture is bringing grasses and legumes from all lands under the sun to help in the solution of this question. Grasses for the rich bottom lands, for the thin hill sides, for the semi-arid plains, for sandy soils and stiff clays, for drifting sands and rolling prairies, for sea beaches and river fronts—but especially for the pasture, for feeding the dairy cow and the meat producer."

NITRIFYING BACTERIA IN THE SOIL AND HOW TO PROMOTE THE WORK OF THESE ORGANISMS.

Correspondence of The Progressive Farmer.

For many years it was considered by the most intelligent farmers that the value of barnyard manures consisted only in the actual fertilizing constituents which such manures contained in themselves. Strange as it may appear it is nevertheless true, that all the advances in chemical knowledge as related to agriculture, as well as most of the most important discoveries, have been made and worked out by persons who were not actually engaged in that high calling. The interest in agriculture felt by early students of chemistry led them to investigate the subject of plant life and plant food; this naturally carried them to the soil, then to experiments; experiments led to new discoveries, controversies followed, and controversy stimulated deeper researches. So that opposing opinions resulted in bringing to light nature's hidden truths, again evidencing the fact that all progress and all growth is the result of opposing forces.

And although agriculture is the oldest high calling ordained for man, yet it may be regarded as being in its infancy to-day. Its growth and development, however, is wonderful, and when

CHEMISTRY CAME TO ITS AID, it received an impetus and a help truly wonderful; but it remains yet for those engaged in it to put into practice the discoveries already made.

Many antiquated theories must be pushed aside in order that the new discoveries may be put into practice. Already the agricultural schools and colleges and the experiment stations are spreading the light and the inventive mechanisms are at work, bringing us labor-saving machines to do the work with one man that formerly required twenty or more to do.

TEACHING AGRICULTURE IN THE SCHOOLS.

This is only the beginning. France has set a grand example to the world her efforts to foster and encourage her agricultural interests—free schools, where the elementary principles and practice of agriculture, horticulture and arboriculture are taught, children from 7 to 9 years, and 9 to 11 beginning with the garden. Under the guidance of the Minister of Agriculture her boys are advanced from one grade to another until they are fully prepared to take charge of and manage estates, sugar manufactories, distilling, etc., in all their technical details as well as tilling the soil, renovating and improving the fertility of the soil. In fact, their training leaves nothing undone that pertains to soil production.

The United States has made a good beginning, but it is only a start compared with what it must yet result in. We need to have the elementary principles of agriculture taught in every rural free and private school, graded somewhat on the French plan. Up to within the last half century we may safely say that the Americans worked to exhaust our lands by wearing them out, leaving them in gullies and washes, turning out and clearing more, only to repeat the operation and finally to remove to newer States in order to pursue the same old course. But we are glad to see signs of a revolution; the tide is starting now which is to usher in a new era in American agriculture. As the movement gathers force we may hope to see in a few years many of our solitary and waste places blossom and yield their wonted abundance.

We started out to write this article on THE NITRIFICATION GOING ON IN THE SOIL,

but for the existence of which our lands to-day would not support the people now living on them. Man's ingenuity to discover and find out has hardly been as commensurate with the deterioration of the soil as in mechanics, nevertheless, and an important discovery pertaining to agriculture is made, it is not long before the advance guard takes it up and utilizes it. For many years it

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