

PROGRESSIVE FARMER

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

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Agriculture.

EARLY CORN AND SOME OTHER MATTERS.

Correspondence of The Progressive Farmer. North Carolinians are a great people. They are not easily snowed under by common trifles. They are not apt to turn until they look their mistakes squarely in the face.

"Risk all to gain or lose," is a bad game for our sensible farmers. Money crops help the well to do, but the small farmer who has a crowd of children to feed, clothe and educate, has no money to lose at any game of chance. The past year shows many shortages in crops of various kinds. But do not look at shortages too long, but rise and come again. The earliest crop known to me for man and beast is Adams' Extra Early corn. With land very rich and well plowed, then throw up four furrows with turning plow; open in ridge lightly with bull tongue; cover shallow with hoe about eight inches apart. About time for coming up, have rich well-rotted manure and strew on the corn in furrow from one end to the other. When corn is well up give the corn a surface hoeing and then plow out rows close and throw up well to corn. After about seven days another surface hoeing and you may have hard corn by the middle of July.

Soft corn for table and stock and fodder for horses. Divide corn with your horses. I have grown this corn for more than ten years. The ears are short and plump and sell here readily at ten or fifteen cents per dozen. This, you must recollect, is Guilford county, N. C. You in the East may do better. What will suit one place will not be the thing for every State and condition. One year I sold my whole crop at twenty-five cents per dozen. But more people in the growing of this corn than proceed. Plant from the 6th of March up to May. My next choice Mammoth Sweet, a very large ear and a fine grower.

Garden or English peas may be planted by the fourteenth of February; have often planted in November, but with not much earlier fruiting and the yield not so good. Vegetable lands cannot be plowed too often when dry. Also insects are apt to be less damaging.

In all my planting, I have the ridges elevated some. My plan for subsoiling is between each row. Hill-side terracing by having each row constructed that every row controls its water and not go too far in the same direction. Change the slope so as to have no wash when the surface water is well controlled and a thorough culture fifteen inches deep, no danger.

R. R. MOORE.

Guilford Co., N. C.

CLEARING A PINE THICKET.

Correspondence of The Progressive Farmer. I have an old field of thirty acres grown thick with small pines. I want to prepare the land for wheat. When is the best time to cut down the pines? Should the brush be allowed to rot or is it best to burn as soon as dry? How long a time will it require for the stumps to rot? They will average about five inches in diameter.

H. O. A.

Wilkes Co., N. C.

We suppose our correspondent wishes to sow the wheat next fall. We know of no special advantage that one season has over another in the matter of cutting the pines, except that they should not be cut when "the sap is up," if other pine timber is near by which "flatheads" or "bugs," might attack. The rotting brush would add some humus to the soil, but being so much in the way, it is usually better to burn it. We cannot say how long it will take the stumps to rot; we know only that old field pine, compared with most other trees, rots very rapidly.

Nashville Graphic: Corn is now selling at \$1.50 per barrel and meal at 12 cents per sack. The farmer who last year put all his hopes in cotton and tobacco and cut his feed crops, feels like ordering a large supply of automatic kicking machines and getting them close proximity to all of them.

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.

A report received at the Department of Agriculture notes the construction of a device which will no doubt be very useful to gardeners. The machine is designed to destroy weeds in drives and walks by means of direct heat of burning fuel brought to bear on the surface of the walk, charring and killing all weeds, grasses and fallen seeds. It consists mainly of an inclosed fire box for holding burning coke and a drum containing a fan for creating a draft. When drawn over the ground and allowed to stand still for a few seconds, it is said to be very efficient and to do away with the expensive work of hoeing drives, paths, or the use of arsenical poisons, hot water, salt and like destroyers.

GROWING EGYPTIAN COTTON.

The Agricultural Department reports success of the experiments made in Arizona with growing the long staple Egyptian cotton under irrigation. Attempts were made to grow this variety in the Southern States, but the climate was not dry enough to warrant any further trials.

If Egyptian cotton can be grown in Arizona and New Mexico through irrigation, it would mean a saving of at \$8,000,000 a year to this country, as we annually import that amount.

Owing to the similarity between the valleys of Southern Arizona, New Mexico and Old Mexico to the valley of the Nile—soil and climate and the necessity for irrigation—there is every reason to believe that we should be able to produce all of our "Egyptian" cotton at home.

THE FIGHT AGAINST OLEO FRAUDS.

The Committee on Agriculture of the House of Representatives has agreed upon a bill in regard to the manufacture and sale of oleomargarine, which it is stated, embraces all the best provisions of the Groat Bill of last year together with a few additions which seem to strengthen the measure.

The bill agreed upon by the committee places a tax of ten cents a pound upon all imitations colored to resemble butter and a tax of only one fourth a cent a pound upon uncolored imitations. This is the principle championed by General Groat while he was engaged in this fight. It puts a premium upon the honest marketing of butter imitations.

The Committee has also inserted an amendment defining a manufacturer of oleomargarine in which it is explained that "any person that sells, vendes or furnishes oleomargarine for the use and consumption of others, except to his own family and guests thereof, without compensation, who shall add to, or mix with such oleomargarine any ingredient or coloration that causes it to look like butter shall also be held to be a manufacturer of oleomargarine."

The oleo advocates in presenting their side of the case, have dwelt upon the wholesomeness and purity of their products, while the pure butter people have tried to make plain the fact that the fight is not upon oleomargarine as such, but against the frauds which are committed by the producers and handlers of that commodity.

If the law is strictly enforced there will be no object for the retailer to sell the imitation product as pure butter, charging butter prices for it, for the tax will bring the retail price to approximately the average of butter prices. The sole purpose then of coloring the imitation to resemble butter will be to cater to the trade, preferring the imitation to the real, but which dislikes the white appearance of the former in its proper state and is willing to pay an extra price for the indulgence of this taste.

THE CATTLE QUARANTINE.

The Bureau of Animal Industry has just issued an order making several alterations and changes in the Texas fever quarantine line. In California, San Benito county is taken out of quarantine. In Oklahoma parts of several counties are

taken out while in Tennessee quite a change is made in the district formerly under quarantine.

Special quarantine is placed upon certain counties in Texas, Oklahoma, North Carolina and Virginia.

GUY E. MITCHELL.

Washington, D. C.

The Department of Agriculture reports that at least 8,000,000 copies of farmers' bulletins will have to be printed this year to meet the demand.

SAVING WHAT YOU MAKE.

The waste on Southern farms is much greater than most of us appreciate. It begins in the manure heap, and extends in every department of farm management.

We let our manure waste and leach and then make expensive purchases of chemical plant food.

We let our barns and fences and tools and houses rot for want of whitewash and paint and shelter and care.

Our cattle and live stock of all kinds are stunted by exposure and food. This is a great waste.

We waste our hay crops by failing to cut and cure and market with proper care and intelligence.

Our cotton seed are not fully economized and our corn stalks are not appreciated.

Our cotton is poorly ginned, badly baled and then exposed to all sorts of weather and foolish treatment.—Dr. J. B. HUNNICUTT.

FARM NOTES FROM CRAVEN.

Correspondence of The Progressive Farmer.

Notwithstanding the general failure of most crops in our county to come near the general standard, yet the farmers generally are pushing on the work for 1902 with zeal and cheerfulness.

The eastern part of our county is put largely in truck. Some have cabbage and peas followed by cotton, and potatoes followed by corn or hay. There is not much anticipated change in acreage of the leading crops, except perhaps a larger area in tobacco in the western end of the county. As the tobacco farmers beat the cotton farmers very much last year in prices, others seem induced to try the weed this year, so there may be ten per cent. increase in the acreage.

Cabbage plants have been killed in the fields worse than usual in many fields and there are not enough plants in the county to replant.

Fall oats have been killed much worse than usual, and those not killed have hardly made enough growth to see them above ground, owing, we suppose, to continued cold in November and most of December.

We have had some nice weather for work in January, and farmers are using every hour available, some even plowing when the ground is frozen an inch or two.

Early peas are being planted for the Northern market and land and compost preparing for Irish potatoes, the planting of which usually begins in our county about the middle of February.

Some turnips are planted for market and these, if they fail to sell well, come in very fine for stock where corn and hay are short. And corn is short both ways this winter, short in quantity and quality; more rotten and inferior corn than we ever knew before in proportion.

The outlook for strawberries is not so good as usual at this season as plants have hardly yet begun to show green, though farmers are top-dressing and mulching with pine straw.

D. L.

Craven Co., N. C.

The reports received at the Bureau of Forestry show that many farmers, particularly those in Western States, have been planting trees for combined windbreaks and wood lots. Too many farmers in our own section have old patches of worn-out land which could be advantageously turned into a wood lot, and at no particular expense of either money or labor. This would tend too, to improve the land.

Live Stock.

THE LIVE STOCK INDUSTRY IN THE SOUTH.

VI.

Feeding the Dairy Herd.

Correspondence of The Progressive Farmer.

A little discussion of the principles of feeding farm animals will doubtless not be out of place at this time. The feeding of animals in the most satisfactory way calls for skill and training of a not common kind.

In the beginning, I think the reader will agree with me that the majority of us are feeding in a manner pretty much slipshod and by guess. We want the herd to pay us a good profit, but decline to give it any attention or care.

Feeding the dairy herd by simply guess work is neither business like nor profitable. A man would soon make an utter failure on a locomotive if he knew nothing about controlling the engine or regulating the steam. In other words, he is trained to a certain extent in the fundamental principles of locomotive practice. The successful feeder must likewise be trained in the fundamental principles of feeding. If he is very accomplished in the art, then he can feed beef and sheep and swine to top the best markets in the country, or he can feed the very highly organized machine—the cow—so that she may produce three pounds of butter in a day. What are

THE FUNDAMENTAL PRINCIPLES OF FEEDING?

If the reader will follow us, we will try to be brief and plain in this discussion.

In a previous article we said the plant fed from the air and the soil; and that the animal fed from the plant; and that the soil and air in their turn get their constituents from both plant and animal when they died. We are interested here, simply in the relation of the plant to the animal. The animal feeds from the plant, we say. What does it get? Those ingredients necessary for the growth of the animal. When the plant was growing it was simply building tissue, and this tissue the scientist classifies as ash, water, protein, fat, and carbohydrates. That is all there is to these names: they simply stand for an ingredient or constituent of the plant. These have been made from the elements of the air and soil like nitrogen, phosphoric acid, potash, etc. The animal cannot grow by being fed nitrogen, phosphoric acid and potash, but must be fed plant tissue or animal tissue which has been built by plant tissue. So without further discussion, the food of the animal consists of the plant; or ash, water, protein, carbohydrates and fat which make up the plant.

WHAT THESE CONSTITUENTS OF THE PLANT DO.

I. Ash. The ash of a feeding stuff is the part left after being burned. In an hundred parts of pasture grass there are 2.5 pounds of ash. Indian corn has only 1.5 pounds of ash in a hundred, while red clover hay has 6.2 pounds.

The reader readily recognized that the ash in plants is necessary for the ash in animals for making bones, nails, horns, etc. Because the plants ordinarily contain, when fed in the variation they usually are, sufficient quantity of ash material, the feeder is not concerned in furnishing ash material as food.

II. Water. The water in plants varies from 75.3 per cent. in pasture grass to as low as 5 per cent. in some of the concentrated feeding stuffs. Inasmuch as the feeder does not depend upon the water content of feed stuffs for water supply for the animal, we can dismiss this matter without further thought.

III. Protein. The protein of a food stuff has nitrogen as its basis. It is the part of a plant that when fed to animals goes to produce lean meat in the animal, and blood, and nerves, and organs, milk, and that class of tissue in the animal. These parts of the animal are produced only from the protein of the food.

IV. Fat. Both plants and animals contain this substance. When an animal feeds, the fat of the plant is stored in the system as fat or is burned to produce heat or furnish energy.

V. Carbohydrates. Found in plants, including starch, gums, sugar, fiber, etc.

This group is the largest part of our foods and goes to produce fat in milk, heat in the body, fat in the body and muscular energy.

This grouping divides the food stuffs into five divisions. The feeder should fix the names in his mind and acquaint himself with the work each does in animal building and animal production.

In our next article we will discuss the relation these groups have to each other and what each means in making up rations and feeding the farm animals.

CHARLES WM. BURKETT.
N. C. A. and M. College.

SHEEP IN THE SOUTH—A SUMMARY.

XXIV.

Slowness and Prejudice—Preparation—Winter Pasture—Spring Buying—Cheap Sheep or High Grades—Agricultural Colleges—Sheep as a Fertilizing Agency—The Relation of Sheep Raising to Southern Agriculture.

Correspondence of The Progressive Farmer. Many times have I wished that I had not promised another and final chapter in this series on sheep, not that I did not wish to write it, but because I became so busy arranging for the purchase and care of a number of flocks in Iredell county.

In this work I have come face to face with about all the difficulties in the way of introducing sheep husbandry in the South. The first thing to do is to form a resolution in the mind of the farmer or planter to get the sheep. In this section I find many who have reasoned and investigated and come to a decision to get them; but they are so slow. Why since I came here I have had much correspondence from the North and already one gentleman, Mr. Sherman, from Northern Ohio, came to me to look over the country and I had no trouble in selling him a farm of 120 acres on which he purposes to move this spring, with 100 sheep. He is a veterinary surgeon, has kept sheep and understands his business.

I may state here that nine-tenths of the things that prevent favorable decisions as to buying sheep may be summed up in one word: *prejudice*. In trying to remove these prejudices I am often led to think of the obstinate witness who saw a post that was painted black on one side. He said it was a black post and stubbornly refused to walk around it and see that it was also red, blue and white.

The poor fellow lived and died saying it was only a black post!

Some think a great preparation is necessary before getting the sheep. When they are to be bought late in the fall, it is necessary to have wintering prepared and shelter and likely some extra fencing. At the time of writing this chapter the winter buying is about past and few will be purchased between now and mid-summer, which is really as good a time as any to buy, all things considered; yet the kind of sheep to be bought often changes this condition.

To be ready for sheep next winter one can prepare fully this coming summer by arranging to have plenty of hay or fodder and corn or cotton seed for the number of sheep one intends to start with. If the purpose is to have and fatten "spring lambs" the food prepared should be suitable and for any wintering in the South it is surely advisable to provide winter pasture by sowing liberally of rye, etc., in August or first of September and to sow it thickly.

For the winter lamb market the dry ewes or yearling ewes must be bought early in the spring to mate them with the ram in June and July, so as to have the lambs drop in November and December; but if they are to be wintered and fed off to market as yearlings in April, March or May, they may best be lambed in April and May. In either case provide so as to keep them growing and fat all the time until they get to market.

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Furthermore it is always a loss to

let any sheep run down poor and have them to build up again.

It may be well for those who have no experience with sheep to buy cheap low-priced ewes and build up a high grade flock; but in the majority of cases where sheep papers and books are available and experienced advice near by, it will pay best to buy the high grade ewes and continue the building up work. The higher the grade bought, even to thoroughbreds, the better for the purchaser unless he has to pay exorbitant prices.

It does not require much more feed for a sheep that will shear ten pounds than for one that will shear five pounds, and still not much more for one shearing fifteen pounds than for one shearing ten pounds. The labor attending the heavy shearers is not much increased over attending the lighter shearers. Common sense, reason and practice will prove these things clearly.

In these chapters I have so often referred to the condition of Southern agriculture that it seems unnecessary to do so again. It is enough here to refer to the fact that it is not paying as it should pay. The agriculture of the lower Southern States is not paying like that of Kentucky, Indiana, Illinois, Iowa and Missouri. Neither are the lands of the former increasing in fertility as the lands of the latter are. Twenty-five to fifty years more of the old farming methods would have brought to the former poverty and sterility while the latter shall still more bloom in richness and fruit in productivity.

There would have come a humiliation to the people of the South and a yawning gulf of difference between the people of the two sections that a hundred years would not see obliterated.

But this extent of difference is not to come for the race of the two sections is the same; they are equal in ability and in purpose one.

Excelsior quickens the intelligence of both and the two rising generations of the South are seeing the situation and intuitively rising to the exigency and grasping the conditions with a determination to conquer and succeed.

They will master the new progressive agriculture that shall supplant the old; and no country like the South Land will respond to the new treatment more bountifully.

The agricultural colleges of the South are a progressive part of this new work. Of these I am pleased to note that our own North Carolina Agricultural and Mechanical College is ably, practically and persistently pointing out and leading the way upward, although not yet receiving one-fourth the support either from the Legislature or the people that it merits and must eventually have.

In this great work of progressive agriculture the domestic animals must constitute at least one-third of the agencies brought into service, for they consume the products of the earth and return the fertilizing elements again to the soil.

For this purpose, all things considered, no animal excels the sheep. Her fleece will comfortably pay her way, with some additional profit every year, while her increase in numbers from the age of two years and on will more than equal that of any other stock.

It is in her capacity as a fertilizing agency, after all, that the main superiority of sheep over other animals becomes apparent and useful. Having specifically explained this in a previous chapter, I will not reiterate here, but will say that there are as yet but few and small sections of the United States where this usefulness of the sheep is fully demonstrated and utilized.

The Northwest and Southwest make a very large profit out of the wool and mutton of sheep, while the use of its fertilizing products is practically lost. Even in the most improved sections of the Northeast where sheep have long been kept, their fertilizing agency seems to be but half understood and generally appropriated.

Just here I point out as a fact that

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