

# PROGRESSIVE FARMER

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

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## Agriculture.

### THE BEET CROP—STOCK FARMS NEEDED.

Correspondence of The Progressive Farmer.  
The beet crop is one of much value and can be grown very cheaply. Sand or clay land when made rich grow them to perfection here. And is there a better feed for sheep and cows in winter? They are not hard to keep in winter; they need no shelter. Do not put them in bulk, but put on plenty of dirt so they will not freeze.

We have fine lands in North Carolina for growing our own supplies, and yet we are buying hay and beef from the North and West. Young man, start you a stock farm, beginning at the ground with clover, alfalfa, orchard and timothy grasses. Then come on with your calves, cows and sheep. But one of the mistakes is that what you want, you want now. The vast growth of factories and towns and cities in our State is calling for table supplies at home. When our tables are well supplied with home products, then the poor children can study books in the free schools. The grasses and stock build up and enrich; cotton and tobacco prepare the land to wash away and leave the poor hills in gullies. He is a builder that saves his land from the washes.

R. R. MOORE.  
Guilford Co., N. C.

### FARMERS' CHEAP FERTILIZERS.

An Illinois Farmer Thinks the Cow Pea Is Unequaled.

Correspondence of The Progressive Farmer.

Clover has long stood at the head of the list of cheap fertilizers for farmers, but its cheapness is some times a disputed point. I have seen cases where clover was anything but a cheap fertilizer. When you get a poor stand of clover it is not cheap, but expensive, far more so than if one bought commercial fertilizers outright. Clover has its purpose in the farm economy, and if properly used it does well. But not too much value should be set by it. If the land is right for clover, and one can get a good stand, it is a cheap fertilizer, and every farmer should make it a point to use it. But the cheapness is one of relative importance, and it cannot be said to be the best and cheapest fertilizer even in the majority of cases.

Personally, I think cow peas, where they can be raised, is a cheaper fertilizer, likely to give the best all-round satisfaction. We all talked about the value of clover for this purpose before we knew much about cow peas. Now our ideas and methods are being revolutionized. We are raising more cow peas and less clover proportionately. And yet every now and then you will hear some farmer say that cow peas are not raised in the North by intelligent farmers. I heard it the other day from an otherwise good farmer. No, he was not otherwise a good farmer though apparently successful. In the same breath he said he never raised ensilage, and didn't think it was much better for the stock than so much stale molasses. Now, the opinion of such a man is hardly worth quoting, except to show that some are so thoroughly opposed to any innovation that they will shut their eyes to everything modern.

Your Southern people have the advantage of us, but cow peas are raised more and more every season in the North, and they are rapidly becoming the farmer's cheap fertilizer. They are crowding out clover in this respect, and they will eventually make our farming far more profitable. Cow peas furnish nearly twice as much forage for live stock as clover, and when harvested they leave the field in better condition for other crops. Moreover cow peas will grow on land which is unsuitable to clover, and where many grain crops only sparingly grow. Stock like cow peas, and will some times eat them in preference to the best clover hay, and I think they will show up as good results from any point of view as a continuous food.

W. E. E.  
Wayne Co., Ill.

### NEWS OF THE FARMING WORLD.

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

Correspondence of The Progressive Farmer.  
The Fish Commission sees no reason why a farmer should not raise his own fish as well as his own chickens or pork, and believes that the cultivation of fish for market in the interior will soon become a fixed and profitable industry.

### FISH FARMING IS POSSIBLE

wherever there is a pond or a stream, and the Government Fish Commission will furnish a good supply to start with. Fish ponds can be created in villages and even cities wherever there is running water, and the Commissioner believes it to be practicable for every housewife to raise her own fish. It does not require a large area, although a fish must have a certain number of cubic feet of water, just as a human being must have a sufficient amount of air for sustenance, but this is easily regulated. He claims that it is no more difficult to raise fish than it is to raise melons or strawberries, and that the farmer must use only the same care and attention that he applies to wheat, corn, cotton, tobacco, chicken or pork.

The construction of a fresh water fish pond involves only a little digging, the erection of wire screens to prevent the fish from escaping and a supply of vegetable and animal life to furnish the fish with food. It is scarcely practicable to furnish fish with artificial food, and plant life is much more desirable. After the pond has been made and stocked with the right varieties of fish it will require about the same amount of care and attention as a strawberry patch or an onion bed. It is, of course, much better to utilize a running stream wherever possible, and this can be done by arranging wire nets with fine meshes to prevent the fish from escaping. In the cold, clear waters of the North trout, bass, perch and other varieties will thrive, and the Fish Commissioner at Washington is always glad to stock private fish ponds and furnish instructions for farming them. Success has been attained at many places in the country.

Most farmers will be surprised to learn that in spite of our enormous export of wheat, we are compelled to import hundreds of thousands of bushels of it.

### FOR USE IN MAKING MACARONI.

For this wheat we pay a higher price than we get for our wheat abroad. We mix it with our own wheat, thus producing an inferior quality of macaroni and also import 15,000,000 pounds of what is useful food. Professor M. A. Carleton, the wheat expert of the Department of Agriculture, says that macaroni wheat can be grown with great profit in many of the Western States, especially Texas and other Southwestern States. It is one of the best, drought-resisting wheats known, and can be grown in localities where the rainfall does not exceed ten inches annually. For this reason it should prove especially valuable in Texas. Experiments already made there have been very encouraging. With the object of encouraging the growth of the wheat, the Department of Agriculture has instructed its agricultural explorer, Prof. D. G. Fairchild, who is now travelling in Algeria, to procure several hundred bushels of the Algerian macaroni wheat, which will be shipped to the Department and distributed in the arid and semi-arid regions of the West.

A. B. MARRIOTT.  
Washington, D. C.

### TO NON-SUBSCRIBERS.

If the person to whom this copy of The Progressive Farmer is sent is not a subscriber, this number is sent as a sample, as an invitation to subscribe. The small sum of two cents per week will make it a regular visitor to your home—three months, 25 cents; six months, 50 cents; one year, \$1. And any Carolina or Tennessee farmer subscribing now who feels at expiration of subscription that he has not received full value, may have his money back for the asking.

### WHY THE CORN PLANT DEGENERATES.

Correspondence of The Progressive Farmer.

Almost every farmer reader of this journal, has often heard neighboring farmers say that their wheat, or oats, or corn, as the case may have been, was "running out."

The term "running out" is commonly used in connection with a variety which is losing its productiveness. The average farmer knows that his corn is "running out" when its yield and quality are annually declining. But he knows not the cause thereof.

Our improved breeds of corn, of which there are actually only a few which have been bred up during the past 30 years, (notwithstanding the host of so-called wonderful novelties annually introduced,) have been artificially created, and adapted to man's needs and fancies, and are artificially maintained by careful breeders. When the seed of a new dominant or cosmopolitan highly bred variety of corn first goes from its breeder with fixity of type, and harmonic, flexible, and prepotent organization, it easily for a time, 5 or 6 years perhaps, buoyantly adapts itself to various soils and climates. Most especially is this the case if the seed has been transported from the locality of the plant's greatest perfection. Not so with many of the so-called wonderful corn novelties which evidently have sprung from old degenerate sorts, which are annually introduced. Owing to these serious defects they cannot be rated as cosmopolitan varieties. And when transported to various soils and climates, their constitutions receive so great a shock by the operation of local endemic conditions, that they in a year or two, break up into a multitude of degenerate types; in other words, "run out."

When a wellbred corn first goes from its breeder with a strongly prepotent, vigorous, flexible organization, it for a time easily combats and overcomes the various adverse endemic influences which assail it. But after two or three years of its continued breeding, which is generally its fate in the hands of the average farmer, its organization becomes weaker and it readily succumbs to the degrading influences of intercrossing (through the agency of bees, insects, birds, and winds) with the degenerate varieties which usually abound in the vicinity of the home of its adaptation. As its organism continues to grow weaker, it becomes susceptible to the attacks of parasitic fungoid diseases, and to the uncongenial action of adverse chemical soil constituents. These and other causes (causes often combined with lack of care in what may be termed breeding,) hurry it with great rapidity on the down grade to inferiority, where it becomes extinct, because unprofitable to cultivate.

There is also another cause of the deterioration of our cultivated plants: all living vegetation naturally feeds on the constituents of the air, soil, and water; and on the scarcity or abundance of congenial elements in any given locality depends the organic vigor of the plant. It has often been and is still being demonstrated that when a variety of plant has been developed to a high degree of perfection, by continued good breeding, it will rapidly "backslide," unless it continues to progress under the same good breeding pressure which has developed it. This is in accordance with an inflexible law of nature, that nothing can stand still. It must either advance or deteriorate. Any variety of corn which may be grown for several years in any particular locality, becomes so fitted to local endemic conditions that progressive variations cease to occur. It has then fallen into a state of laziness and its non-progressive adjustments can only be broken up by removing it to different soils and climates, where progressive variations begin anew. Chas. Darwin, the great naturalist, demonstrated to the world that highly bred, dominant varieties of cereals, whose organic relations are harmonious, prepotent, and flexible,

become still more victorious when judicious changes of seed are made to various soils and climates, and always beat the natives. In fact, changes in the conditions of life give greatly increased yields to all organic beings. The writer believes that the laws of plant breeding and seed changing will be much better understood within the next 25 years, and that this will result in a surprising increase in the average yield of all of our farm and garden crops.

J. C. SUFFERN.

Platt Co., Ill.

### IMPROVING THE POOR FIELDS.

Correspondence of The Progressive Farmer.

Every season attempts should be made to improve some portion of the farm so that the soil will show the highest standard of productivity. There are crops which must be raised on every farm which leave the soil much poorer in fertility when they are harvested. Systems of rotation may tend to counteract this evil, and keep the general average of the fertility good, but in spite of this there will be a gradual decline unless special efforts are directed toward the improvement of the soil. This can best be done by selecting certain fields or a field each year, and making a point to raise the standard of the fertility of that section. By thus changing off one goes over the whole farm in the course of a few years and makes the soil all of a high standard.

Now a rotation of crops in which clover comes for its share may not necessarily keep the soil in a high state of efficiency. This can be seen in soils that have become clover sick, and show every sign of degeneracy simply because the soil is clogged with undigested plant or green manure. Now, it is impossible for the soil to improve when such a condition prevails. The soil is fed to overflowing, but it requires something that will help it to digest what it contains.

To do this the land needs regular treatment once in a few years, much as a physician would treat a patient. He examines a sick man's pulse, looks at his tongue, studies his complexion and tries to find some organ out of order. Then he applies the remedy accordingly. Once every few years we can examine a section of the farm in the same way. What is the matter with the soil? Has it been fed plant food in the shape of green manure too steadily and continuously? Then it may require the phosphates, lime and other mineral elements to counteract this condition. It may be it has been stimulated too continuously with mineral fertilizers, and it is in need of green food. Again it may be sour, and requires rectifying with lime or salt. There are a dozen and one conditions that the soil may be in which can be remedied only by a careful study. The farmer with a fair intelligence of farming can do this. It does not require expert knowledge, nor technical skill, but simple, ordinary common sense, and then the disposition to remedy the trouble.

JAMES S. WILSON.

### NORTH CAROLINA FARMING.

Maxton Scottish Chief: It is estimated by the farmers of this section, that the cotton crop has been cut short at least 25 per cent by the heavy rains and continued wet weather.

Fayetteville Observer: During the month of May the Southern Express Company shipped from Fayetteville 5,712 bushels of peas.

Tarboro Southerner: Some enterprising paper has put the number of bales of cotton in North Carolina still in first hands between four and five thousand bales. If correct, about half of this is in this county.

Summing up the strawberry season, the Mt. Olive Advertiser says: "There has never been more than two consecutive days of good strawberry weather this season, but in spite of hail and rain our growers have shipped almost as many crates as last year; the prices have, as a rule, been satisfactory."

## Live Stock and Dairy.

### SHEEP IN THE SOUTH.

I.

A Few Words of History—American Merinos—Importations From Spain—The Writer's Experience—Mutton Breeds—Importations From Great Britain—The St. Louis World's Exhibition.

Correspondence of The Progressive Farmer.

Looking backward through history to the beginning of recorded time, we find that keeping sheep was one of the principal and most honorable industrial occupations of mankind. "Abel was a keeper of sheep." So was Abraham, Job and David. The Egyptians, the Persians and the Romans kept sheep. The lamb has been used as an emblem of harmlessness, meekness and purity. Keeping sheep has been a prominent industry of the modern nations; most notably, Spain, Germany, France and Great Britain. When Spain was in the height of her glory, her flocks of excellent Merino sheep were largely owned by the nobility and the crown, and the industry was carefully protected and promoted by the government. So was it in Saxony and in France.

It was from Spain that South America and Mexico received the start of their most numerous flocks. It was in 1801-2 and subsequent years that the United States received imports of Merino sheep from the noble flocks of Spain, the blood of which until more recently constituted by far the larger part of the sheep of the United States. Later on considerable importations from Saxony, and still later from France, were introduced into American flocks. These latter were respectively known as Saxon and French Merinos, being originally Spanish Merinos. However, some of the original Spanish Merinos were kept pure by their breeders, and wonderfully improved, both in form of carcass and in weight of fleece. So marked and well established was this improvement, that in the past fifty years, in the United States, and over the world, this stock of sheep has been known as the

### AMERICAN MERINO.

The greatest achievement ever acquired in the world in an equal length of time, as to growth of fleece in quantity and quality, has been attained with these American Merinos. Single sheep have been authoritatively known to have produced over nine pounds of fine wool, of twelve months' growth, scoured clean ready for the cards. These same fleeces would weigh twenty to thirty, and even over forty pounds to the fleece, "weighed in the grease and dirt," as it came from the sheep's back.

From small boyhood when he was just able to carry a lamb, about 1855, on for thirty years thereafter, the writer of this cared for lambs and sheep of his father's large flock of sheep, mainly in Brooke county, Virginia, and for his own. However, for twenty years of that time he was a breeder in West Virginia and Missouri, of the pure blood American Merinos, selected and purchased by him in 1865, from the celebrated Hammond flock of Vermont. He is yet in possession of diplomas and medals from State Fairs and from the Centennial Exposition at Philadelphia in 1876, for superior Merino sheep, and the same for wool from his Merino flock, exhibited at the Paris Exposition Universelle, in 1878. During these years he became familiar with all sheep history; with the science of breeding and improvement of sheep, and with their management in small flocks in the Eastern States, and with large flocks in Missouri, in the grazing regions of Texas, on the Western plains and on the mountains, in all of which business, the development of his own flock and of those under his care were very successful in every way with his practical management.

In all the world's sheep history down to the last of the nineteenth century there can be no brighter nor more illustriously successful page, written for the same length of time, than that which shall truthfully describe the great development of the American Merino, especially as a

wool-producing animal. While this is true, the writer often queried in his mind, whether or not, and has to a degree demonstrated in practice that there is an improvement possible for the Merino, in which it can be made to attain most successful mutton qualities, while not losing its superiority as a fine wool sheep. The successful improvement by many breeders of these sheep in recent years seems to be solving this problem. It surely is practicable. However, such improved sheep should not and cannot usurp the essential place of the mutton and lustrous coarse wool breeds. Nevertheless, it is not true that fine wool cannot be grown on a large squarely built muscular sheep, any more than that it is not true that coarse wool cannot be grown on a little meanly-formed sheep.

### IN GREAT BRITAIN,

during the last three hundred years, sheep have been kept and improved to produce meat or mutton, as the first prime object, and secondly, but not less successfully, for the production of long lustrous combing wool, not the finest in quality; hence, the greatly developed improvement of this sheep for these purposes by the English, Scotch and Irish people. The divergence of the present sheep of that nation from the original type of several hundred years ago is fully as marked and striking as that of the Merinos from their original type. To the breeders of Great Britain belong the praise for the greater part of these improvements for mutton and for coarse combing wool; although their American cousins, both in the United States and in Canada, are now producing animals for the same purposes from their stock, and carrying onward and upward the improvements with unabated zeal and unparalleled success.

During the last century, and especially in the last half of it, importations of these mutton sheep by the Americans from the English and Scotch flocks have been frequent. The selections were often made from the most perfect types of their best flocks, both for mutton and for long lustrous combing wool. The improvements of the stock of these importations have kept pace in every way with those made by any of the flocks of Europe. In fact, it is claimed that if there were to be a competition of sheep from all parts of the world, that those from the United States would lead in the awards of merit and likely carry off more first prizes than would those from any other nation.

The sheep breeders and wool growers of the United States are not satisfied to occupy a second or third place from the front in the science and art of their occupation. "Excelsior" is their motto and they are persistent in securing a place in the world's line with the foremost in progress, if not in advance of it. It remains to be seen whether the managers of the St. Louis World's Exhibition for 1903 shall succeed in bringing together such an exhibit from the flocks of the most successful breeders of sheep in all nations. If they do, it will be an exhibit that has never yet been fully attained.

SAMUEL ARCHER.

McDowell Co., N. C.

### THE CONFORMATION OF THE DAIRY COW.

BY PROF. ANDREW M. SOULE.

An address delivered before the Rural Science Club of the University of Tennessee.

It does not take a great deal of equipment to develop the subject of stock-judging, and yet special training along this line is highly important to every agricultural student. In college work, where you take a regular agricultural course, we commence with the score-card. On each card we note systematically the characteristics of several individuals until we become thoroughly familiar with the location, shape and form sought in the respective points of the dairy animal's anatomy.

After you have passed the "embryonic" stage of the score-card you come to the stage of "expert judging," where you will have probably

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