THE PROGRESSIVE FARMER

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

Vol. 16. Raleigh, N. C., November 19, 1901. No. 41

Agriculture.

HARRY FARMER'S TALKS.

LI.

Correspondence of The Progressive Farmer.

Many farmers are now penning their hogs to finish fattening them This is necessary in order to "clean them out" and to save the manure We suppose they have been running in the fields, eating peas, potatoes, peanuts, chufas, etc., and in order to harden the fat they must be fed on corn. Hogs fattened on sweet potatoes will make better bacon for summer use than if they had fed on any of the above named foods, excepting corn The fat from sweet potatoes does not drip out of the meat in warm weather. Peanuts is the worst, then chufas and cow peas. The last named is not very bad.

We usually put down a layer of straw, woods mould, etc., about 12 inches thick and then make a floor of flat rails and cover this with good leaves and straw. In a day or two it will be necessary to put more straw in, as some of the straw will be packed by the hogs between the rails of the floor. Now is the time to be careful if you want the best meat. For a hog to fatten well, it is necessary that he should be confined in a small place, and this will require close attention in order to keep the pen clean. It will require new bedding every day, and if there are many in the pen it will be best to give fresh straw morning and evening

We like to have a shelter that will cover one half to two thirds of the pen. We give water about three times a day—morning, noon and at night. Clean all litter out of trough before pouring in water. It is not necessary for hogs to have enough to wallow in, as they only stay in the pen from 10 to 30 days.

If you have hogs of different sizes in a pen the large ones will lie down in the trough and force all the water out and the small hogs will not get any. In order to prevent this we take a wire and stretch it across the trough from side to side, first driving some nails about a foot apart on each side of the trough and wrap the wire around the nails just like laying a fence worm with rails. The hogs will lie down on top of these wires a few times until they learn that they cannot get in the water. It will give them a good chance to eat or drink. The only objection to this trough is that the wires running zig zag across it you will have to turn it over in order to clean it But this is better than to have to stand over them until all have drunk.

We like to change the feed a little if they are to be kept more than ten days. Give some charcoal, collard leaves, fodder, hay, or anything that is free from dirt We have often made pigs eat more corn by giving a little feed of other things

Hogs treated in the manner I have described will make meat fit for a king's table. But if they are confined in a pen of filthy mud and water, the meat will not be good. And all that may be done to it afterwards will not free it from the flavor of the pen. We believe many hogs are killed by being kept in pens without floors where they can eat all the dirt they want.

We do not remember losing one after penning. We are never bothered about selling our pigs, even when there is a glut in the market. Our customers know just what they are getting and are willing to pay our price.

HARRY FARMER

Columbus Co., N. C.

Greenville Reflector: Mr. W. H. Gray, of Carolina township, cultivated a one horse crop, having seven acres in tobacco, nine acres in cotton, one acre in potatoes, besides what he puts in corn. For his tobacco he received $850, for his cotton $200, for his potatoes $112, making a total of $1,162, and he has on hand 15 barrels of corn and five stacks of fodder. This is what we call a fine result for a one-horse crop, and shows that farming will pay when properly done.

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.

While the evils of in-breeding have been recognized in the case of animals for centuries, it is only within the past few decades that the tremendous influence of this process on plants has been made manifest. In a general way the farmer has known that by

GETTING FRESH SEED EVERY YEAR

or two, he obtained better results than he could, if he saved his own seed, but this was about as far as interest in the matter had proceeded until a very few years ago. Darwin first showed to the world generally the marvelous difference between self-fertilized or in-bred seeds and those of cross breeds, and attention was centered so exclusively on the application he made of this and other facts to the descent of animals an of man that his researches in the plant line were almost ignored for years afterwards. Quite recently the subject has been taken up on its other side, that of improving plants by cross breeding, not only between those from different sections, but also those of different species—this work to be done by the Agricultural Department, which has been doing a great work its plant breeding laboratory. True to its purpose of adhering to plants of the greatest utility, the laboratory has given its special attention to wheat, corn, cotton, oranges, pears, grapes, etc. Wheat especially has been studied, as besides being so valuable, it has many other characteristics which make work with it both interesting and easy. It can be bred in immense quantities at small cost; the 'performance record" of each individual can be measured in a number of its important characteristics—as yield in weight of grain, quality of grain, size of kernels, height of plant, etc; and these values may be expressed in numbers, so as to be averaged for a series of plants in one year or for a series of years; the seeds from each plant being numerous, a small plot can be planted from each of several mother plants, and securing their averages of yield, quality of grain, height, etc., the transmitting powers of the respective parents may be easily compared; field varieties may be developed from each of the several best stocks, and these, at a reasonable expense, may be tested in field trials so as to yield and also as to their milling properties; finally the seeds may be preserved for a number of years, so that the original variety may be grown and compared with the progeny which has been bred for some time. During the past few years, the Department has undoubtedly improved the standard breeds of wheat. Whenever a new hybrid, which comes true to type, has been obtained, it is rapidly increased and its seed sold, in quantities of a few bushels, to farmers in sections where it seems to do best. Almost universally, this wheat has given better results than the other breeds cultivated by the farmer, who is expected to sell his first crop to his neighbors for seed, thus spreading the variety and raising the crop average of the district.

The Department of Agriculture has completed plans for the

ANNUAL SEED DISTRIBUTION

throughout the country. Despite the fact that double the usual amount of seeds is to be sent out this winter, the preliminary work is advanced much further than in past years. There will be 37,000,000 packets of seed distributed, comprising both vegetables and flowers. A change has been made in the method of distributing cotton and forage crops, which now, instead of being sent broadcast, will be sent only to certain sections where they are adaptable and likely to bring about improved conditions. Havana and Sumatra tobacco will be sent only to Florida and certain parts of New England, where their culture has proven successful and where muslin sheets spread over large tracts of tobacco area furnish the necessary tropical conditions. Other types of tobacco plants will be sent to other sections. The Department will begin sending out the seeds about December 1, and most of them will be furnished through Senators and Representatives.

The humble American hog was exported last year by the United States to a value exceeding by more than two million dollars that of the iron and steel exports, of which so much has been said. He furnishes the

LARGEST SINGLE ITEM OF EXPORT,

amounting to nearly $120,000,000 a year, an increase of $35,000 000 in the past ten years. The future of this mighty industry, if not threatened, may be considered at least somewhat disturbed by the wonderful growth of its Danish congener, exports from Denmark having risen from one to eight millions annually in the past ten years and being still rapidly increasing, Most of these exports go to Germany, which already frowns upon American pork, and is inclined to still further discriminate against it.

A. B. MARRIOTT.

Washington, D. C.

AGRICULTURE AT THE LOUISIANA PURCHASE EXPOSITION.

One of the Largest Buildings Ever Constructed Dedicated to Agriculture for the Great St. Louis Fair of 1903

Correspondence of The Progressive Farmer.

Agriculture, by which the great Louisiana Purchase was developed, will receive the highest compliment which the World's Fair at St Louis can bestow. To this greatest of industries the greatest of all buildings ever constructed for any purpose will be dedicated. The Agricultural Building for the Louisiana Purchase Exposition will be 2,000 feet long and 700 feet wide, containing an area of 1,400,000 square feet, or about 32 acres. Any person can best realize what these dimensions mean by finding a field of 32 acres and walking around or across it. Any man living in a city may compare it with the area of 390 city lots of 30 feet frontage, each 114 feet deep on a 66 foot street, and including streets. Allowing 20 lots to a square, the squares being 300x228 feet it would be equal to 16 city squares or blocks, an area of two blocks in one direction and eight blocks the other, all under one great roof. Allowing two square feet for each person 700,000 people could stand under this roof. An army of 50,000 men could assemble and go through its evolutions with freedom within this space. Its outside walls will measure 120 feet more than a mile. A good walker could encircle it in twenty minutes. The fast flyers of our best railroads would require a full minute to cover the distance. The Mississippi River flows an equal distance in about 20 minutes. It will contain about 100,000,000 cubic feet of space, and the area of the floor space is sufficient for 4,666 exhibitors, allowing to each a space of 10x20 feet and a space of 10x10 to the center of the aisle, or 300 square feet in all.

The division of agriculture will be the most complete and comprehensive ever presented, treating broadly of the science and principles of agriculture, farms, buildings, tools and machinery, the culture of cereals, grasses and forage plants, the culture of tobacco and textile plants, the vine and its products, economic horticulture, having special reference to vegetables and fruits, recreative horticulture, including landscape gardening, floriculture and window gardening, domesticated animals, stock raising, the dairy industry, wool growing and the minor animal industries M.

Hon. Seaborne Reese, a leading member of the Georgia Legislature, will introduce a bill in that body providing for the teaching in the public schools of the State of an elementary book on agriculture. He thinks the children of Georgia should be taught something about plant and animal life. Mr Wright will ask for a small appropriation from the Agricultural Department fund for the purpose of procuring such a book as is desired. Both Commissioner Stevens and Commissioner Glenn have recommended for several years such a change in the curriculum.—Baltimore Sun.

OUR CLIMATE SUITABLE FOR "FILLER TOBACCO."

Mr T. K. Bruner Thinks Government Should Locate a Station in North Carolina for Experiments.

I have read with enthusiastic approval your editorial of yesterday under the heading: "Why Not North Carolina?" in which you urge upon the Hon. Secretary of Agriculture at Washington the desirability of placing within this State one of the proposed stations for the cultivation of "filler tobacco," such as is grown in Cuba. It is timely, and it is to be hoped will result in directing attention to this State, since it possesses a vast area, which, in my judgment, (and I have given the subject much thought), is entirely suitable for this purpose. Certain it is that if the soil and climate of either Pennsylvania or Ohio are in any degree suitable, then this State must be far superior. It has a much longer growing season of uniformly warm weather, better distribution of moisture and less fluctuation in temperature during the growing period and is much nearer the salt water than either of the other States mentioned, and in these things conforms more closely to Cuba There can be little question of the adaptability of certain soils in our State to the production of the highly flavored fillers which have given such reputation to the Cuban weed. In fact, (I have been searching all day for an article read and filed some years ago, but which I cannot find) an experiment was tried in Moore county, as my recollection goes, some years ago, and with remarkable success the first year, from seed imported from Cuba. But the second year's crop was not so good in flavor and there was a tendency to grow stalk and top at the expense of flavor. This was from the home grown seed. That experiment was of value in showing two things: that the tobacco with good high flavor could be grown in this State; and that the seed must be imported fresh for each year's crop.

The methods of cultivation, fertilization and curing practiced in Cuba must be carefully studied and made to conform to the soil and climate obtaining in this State. To this end your urging upon the authorities at Washington the advisability of select this State for experimental purposes is much to the point. The experience of Mr. Fontaine in the good old county of Person is not only encouraging, but is an actual demonstration of the fact that these tobaccos may be profitably grown here. The area which seems best suited to the production of these tropical tobaccos is that large area crossing the State from the Virginia line to the South Carolina line, and lying just west of the great trucking fields now profitably cultivated, and generally speaking embracing that territory lying between the Seaboard Air Line and the Atlantic Coast Line railways Should the experiments prove successful, and I know of no reason for supposing that they will not, it would be well to remember that this vast territory would be adapted to the production of this desirable and high priced commodity, and that it would bring to the agriculture of the State an area as large and perhaps as profitable as that now devoted to the trucking interest.

Between 1856 and 1860 the United States Government set out a lot of tea plants near Fayetteville as an experiment, to see if they could be made to grow in this State. The war put a stop to the experiment, but not to the growth of the tea plants. Being neglected they grow to be quite tall in the surrounding bushes, and we have now in the museum a sample of the tea made from those plants in 1892, and which brought $1 per pound on our markets. The point is that the tea plant lived for forty years in our climate Recently the government is repeating this experiment in South Carolina. If successful there it can be made equally so in the southeastern part of this State.—T. K. Bruner, Secretary State Board of Agriculture, in News and Observer.

Live Stock and Dairy.

THE GREATEST OF LIVE STOCK CONVENTION.

$4,555,000,000 Represented by the National Live Stock Association—Annual Meeting Chicago, Dec. 3rd.

Correspondence of The Progressive Farmer.

During the past fifty years there have been many conventions held in the United States representing vast accumulations of wealth and progress. But the first great Congress of the twentieth century, the Fifth Annual Convention of the National Live Stock Association, representing the entire industry of the nation, which will assemble in Studebaker's theatre, Chicago, Ill., on December 3, will represent as much enterprise and more money than any gathering of men ever assembled on the globe

In 1850 the total value of the live stock of every State in the Union was less than $1,200,000,000; to-day it is $4,555,827 375, a sum incomprehensible to the mind of man. In the year named there were but 17,000,000 cattle, 21,723,220 sheep, 4,896,050 horses and mules; to day the figures are 50,602,414 cattle, 15,623,551 horses and mules, and 50,203,000 sheep. Then the grade of this stock, except in some sections of the extreme East, was of the scrub order, which grew and run wild upon the pastures, To-day no finer blood nor more improved methods can be found than in the United States. The magnitude of this industry can only be comprehended by comparison All stock yard companies, packing houses, commission exchanges and a large per cent. of the freight income of all transportation companies are merely incidents to, and dependent for success upon the efforts of the live stock growers and feeders, which term embraces every farmer in the Union. Live stock and cereals are the same as cash in hand. Were the former converted into cash it would take every dollar in circulation in the United States and then the commission man would have to borrow $2 225,000,000 from foreign banks to liquidate the bill. The cereal crop of the country is valued at $2;025, 116,545, yet the live stock is worth more than all the cereals, metals, cotton, lumber, sugar and tobacco combined. The live stock men could buy the stock of every national and private bank in the United States and England and then have millions of money left for speculation. They could own all the stock yards and packing houses in the country and have a surplus of more than a billion dollars. They could establish a stock yards company as large as the Union Stock Yards and Transit Company of Chicago in thirty-three cities, with a capital of $30,000,000 each, and one in every city in the Union as large as Helena, each with a capital of $14,220,000. They could build three trans continental railway lines from the Atlantic to the Pacific and have left $750,000,000 for a reserve fund They could own every steel works and smelter in America and Europe and have a billion dollars left to purchase ore with. They could control every oceanic transportation company in the world and have left a sufficient sum to run them for ten years without taking in a single dollar.

There are 8,000,000 of these noblemen in the United States. If they were to become so united upon political matters, as to vote as a unit, they could elect every officer in the nation from the President to the most humble, backwoods overseer. There is absolutely no limit to the possibilities of these men if they should collectively divert their force and influence in any direction.

The citizens of Chicago are making extensive preparations to entertain all delegates and visitors, and cordially invite all interested to be their guests during the week of December 2. CHAS. F. MARTIN, Sec'y.

Denver, Col.

Winston Journal: Dr. T. L. Cook, of the South Side, raised 35 bushels of corn, 33 bushels of wheat and a fair crop of leaf tobacco from an acre and a half of land this season. He has given bigger farmers a valuable pointer.

PRINCIPLES OF STOCK BREEDING.

A Thoughtful Discussion of the Practical Side of the Whole Subject Presented to Progressive Farmer Readers

Some years ago two friends—young men—were discussing the kind of work they were to take up in life. Both were energetic, ambitious young men. One was a naturalist and loved to be in contact with nature and her creations. The other was a village boy. He had good parentage and being an only son, he would inherit quite a good deal of wealth. He knew agriculture and nature only in a general way. But something about them was enticing to him. And so during the course of a few months' earnest meditation and consideration the latter chose as his work animal breeding and raising and feeding, and the former concluded he was fitted for the legal profession.

And then their ways parted. One went to college. The other remained at home. Preparation came first. The would-be lawyer must first obtain a general and scientific education. The would-be breeder must know something about the principles that underlie animal breeding. He wanted to begin right, so he thought the proper way was to get the best animals, and so he went to the agricultural fairs as a means of educating himself regarding these points. There he saw the symmetrical, well-bred, fine groomed animals, among the best of the respective breeds. He had read all he could find in reference to the principles of breeding. He was impressed, as you are, with the principle of heredity or that like produces like. Good animals produce good animals, and poor animals produce poor animals. So he was taught and that was sufficient. He spent much time at the fairs, and when he went home, he had purchased several of the best. And with this foundation stock, he began his work. But in the course of years his barns did not fill up with the kind of animals he had anticipated. He failed to get the duplicates of the parent stock. While he had purebreds, they were not of the original type. And he saw something was wrong. He did not altogether doubt the trueness of heredity, in spite of his own personal evidence, but he felt he had learned only half of the lesson, which was the fact. "Like produces like," is true; but that is not all The other half of that lesson consisted of this: That while those animals inherited their fine forms and their uniformity of class or type, they also inherited something else—ability of unconsciously adapting themselves to new conditions, because all breeds of domesticated animals are influenced by the changed conditions of climate, food and habit.

Our wisest naturalists tell us that the uniformity that now characterizes the buffalo, for instance, once belonged to the horse, cow, sheep and hog. And we look at these to day—see what a modification of type. The diminutive pony and the ponderous draft horse; both from a common ancestor. But why the difference. One got transported to the barren, bleak, tempestuous isles of Scotland and the small, diminutive Shetland pony results. Another went down to the fertile lowlands of Normandy and Central Europe, in pleasant climate and luxuriant food, and the prodigious draft horse was created. Pony, trotter and draft horse—all from the same ancestors, heredity tracing back to the same point, but three entirely different creatures. Climatic influences are always at work, and in free state in nature are always active. But when domestication takes place, climate loses a part of its influences, because the mind of man counteracts and moulds a creature after his own fashion. He does it by understanding the principles that underlie the improvement of live stock. Man cooperating with climate accelerates the transformation, counteracting its effects he retards it. Saunders gives us an illustration of this in regard to the horses of Canada. "It is evident," he says, "the causes that

[CONTINUED ON PAGE 8.]