

PROGRESSIVE FARMER

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Agriculture.

NEWS OF THE FARMING WORLD.

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

Correspondence of The Progressive Farmer. Few people have any idea of the manifold

USES TO WHICH CORN CAN BE PUT.

To such as are interested in the subject, a trip through the plant division of the Agricultural Department will be a revelation. Possibly the most surprising exhibit is a bar of what appears to be rubber possessing all the qualities of that article. Nevertheless it was made of corn, and it is said the makers of this commodity are successfully competing with the natural product.

Samples of varnish made from corn are on exhibition. Oils made from this grain, which are used as substitutes for olive and peanut oils, are also there. The color of the corn oil is identical with the olive oil, and it so closely resembles the imported product it would trouble an expert to tell the difference between them.

This oil now has a large sale. There are a large number of samples of cellulose, used to prevent the sinking of ships. Paper made from corn, grape fruit, corn flour, which is as white as wheat flour, and which is produced by thousands of tons, as well as glucose, used for so many purposes, are also found in this exhibit. In fact the list of products of corn is so long it would require considerable space to enumerate them. Yet, according to the officers of the Department, corn has by no means reached its top notch, and experiments are now being conducted with a view of doubling, if possible, its production per acre. These experiments are being made by Herbert J. Webster, under the supervision of Prof. Galloway, Chief of the Plant Division, and consist of cross-breeding, from which wonderful results are expected, demonstrating to the farmers the great importance of selecting only the best stock for planting. By the cross-breeding process the nitrogen contents of the corn will be increased, and the care in selecting stock for planting will be instrumental in bringing about a tremendous yield. Already 10,000 specimens of hybrids have been grown, and some of these are promising, although it will be nearly two years before practical demonstrations can be given, and not until that time will the Department be in a position to furnish samples. The Department is, however, prepared to give some wholesome advice to the farmers with regard to producing an increased yield next year. In a general way this advice is to select proper seed for planting, which have yielding qualities. The way to make these selections is to go through the corn field during the fall and choose the best stalks, not merely those that have the largest ears, but those with the most ears and those most commendable in other respects. Most farmers now merely select the largest ears from their cribs when the time for planting comes. Among the 10,000 hybrids are 200 new and distinct varieties. Nothing like them has ever been produced, and Secretary Wilson is expecting great results. Tests will be made to determine which of the hybrids will produce the best crops, when samples will be sent throughout the country that the farmers see for themselves what the Department has accomplished for their benefit.

While the Department of Agriculture has been trying to introduce "MACARONI" WHEAT into general cultivation in the United States, certain Italians have been engaged in demonstrating that we can readily raise grades capable for use for that purpose. Consul Hayden of Castellamare specimens of macaroni made from American wheat, together with a letter from the maker in which he says: "I have with the result of my experiments in producing macaroni from American wheat. Up to this day, I am sure no Italian manufacturer of macaroni thought it was possible, believing it necessary to

use a mixture of either Italian and Russian wheat, or of wheat from the Orient and Tunis. I now put in your possession the accomplished fact, which will serve to open up in Italy a wide market for American wheat. America imports macaroni from Italy, mostly from this district. The wheat used, samples of which are here inclosed, is known as 'unfalcat wheat,' and was purchased by me in New York City." It is suggested that if the United States would admit free of duty, or at least, at a lower tax than the present tariff, macaroni made from American wheat, a market for our wheat would be opened in competition with that of Russia and the East.

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

THE GRASSES AND CLOVER. A Guilford Trucker Gives His Experience With Them—Watch Home Markets. Correspondence of The Progressive Farmer.

It is well to know the natural productions of the lands to be cultivated. North Carolina has a great variety of soil and climate. What we of the uplands of the State can grow to perfection may not be a paying crop in the East. We once thought that only bottom lands could be properly called meadow land, but have never seen hills too high for the fine grasses where the soils and clay were of the proper consistency. We have some grasses that have asserted their claims for which I have utter contempt: one is the Bermuda, the other the Johnson grass. Both may be splendid for grazing or to stop washes. The roots are hard to displace.

All sections and localities more or less are fine for the clay pea, when planted at the proper season, especially not too early. Then follow with the clover. It takes rich land to grow clover and timothy. I sow both on the same land at the same time and a bushel of oats to the acre. The oats and clover are mowed off in May or the early days of June, so the clover and grass can take root. The clover may be mowed again in early fall so two crops are gathered the same year. The orchard grass is treated the same way, herds' or red top and good crops of clover for two years; after this the grasses take possession. If there be poor spots, manure may be added at any time. Have experimented with these crops for about forty years and have had no reason to complain with the crop. At first they gave much anxiety, but of late not so much. Every man has his notions about curing. One thing I had to learn: never let clover mold; had it to lay on the ground over one week and then stock ate it clean and did well as any. When North Carolina turns to hay and stock, she will become a thrifty State and the boys will stay on the farms where all the work is done by machinery. I am not surprised at any intelligent boy leaving the tobacco worm and sucker and cotton bolls. Give him plenty of machinery and stock at home and there is something to stay for.

In the earlier days of North Carolina beef was bought and sold at three or four cents and the price of fine beef has not gone up and down like cotton. To our shame much of the beef comes to us at fifteen cents per pound. Home supplies is what we should turn to if we would properly respect ourselves.

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

Mr. J. A. McAllister, of this town, says that he has solved the forage problem for the farmers of this community. He sowed one half acre in oats and Canada field peas last November. He cut it a few days ago and it yielded 6,500 pounds of forage. As the weather looked somewhat like rain he hauled it in partially green, but allowing 2,000 pounds for imperfect curing, which would be an excessive allowance, and he has 4,500 pounds of good forage from half an acre. Cattle and horses eat it as well, if not better, than any other forage. Mr. McAllister would be glad to furnish any information to any one interested in raising forage.

Lumberton Cor. Charlotte Observer.

ADAPTING CROPS TO SOIL.

Correspondence of The Progressive Farmer.

When a man owns a farm of very sandy land he makes a mistake to attempt to raise crops which do best on heavy fertile soils, for in so doing he is handicapped from the start and will undoubtedly fail to realize his expectations. In farming the very first step is to try to adapt the crops to the soil. In this we merely follow nature's example. There are crops which will do well on nearly every kind of soil found in the country. Only a few barren soils refuse to produce any kind of crops. If there is a proper amount of moisture even the poorest sandy soil can be made to yield some paying crop.

Our corn requires rich, heavy soil, and so do most of our other heavy crops, and such cereals should be raised only on that kind of land. It requires only a little study and experiment to find out pretty definitely what crops best succeed on your farm. Farms that have been declared run down and too sandy to yield any crop profitably have been made paying investments by producing crops of strawberries, asparagus and onions. All that was required was the right sort of man to discover the crop adapted to the soil.

The question of enriching the soil should not of course be neglected even though a certain crop has been found to thrive on it. This is too often a short-sighted mistake which sooner or later manifests itself in an unpleasant way. If it is a sandy soil there is something in it that supplies the strawberries, asparagus or other crop with nourishment. What is it that the plants find in the soil to make them grow? This can be found out by ascertaining the special needs of the particular crop. If it is nitrogen, potash, or phosphates a systematic feeding of the soil and crops with this particular form of fertilizer should be made. In this way the soil will not be robbed. A great many sandy and loose, porous soils permit nearly all fertility to leach through, and if this leak were stopped in some way there would be better results obtained with the crops. Such soils may require commercial fertilizers in which the mineral elements predominate, but at the same time they need coarse plant food or barn yard manure in order to improve the mechanical conditions of the soil. Some times a liberal scattering of forest leaves over the land, and plowing under in the fall, will do more good than anything else. These leaves will close up many of the holes, and at the same time add some plant food to the soil. Coarse straw and barn yard litter perform the same service.

C. T. WHITE.

HARRY FARMER'S TALKS.

XXXIII.

Correspondence of The Progressive Farmer.

The cotton crop in Columbus county is in bad shape, and this spring large fields were plowed up and planted in corn. The excessive rains and the scarcity of hoe hands have been the cause. Have we not reached the limit of production? There will have to be changes made in the cultivation of the crop or else the production will decrease. There is one plan by which grass can be kept under; that is by pasturing geese in the cotton patch. This will destroy the grass so that the land will be almost entirely free from it the next year. As good as the season has been for grass, we have a small patch which is considered very "grassy" with about three geese to the acre and the cotton is as clean of grass as any one could wish. An average year two geese to the acre is sufficient. Goslings will eat more grass than old geese. As a farmer said to the writer some time ago, a goose will eat grass in proportion to the amount of corn fed—the more corn the more grass eaten. A fence from 2 to 2½ feet high is sufficient to confine them. They require some shade and a plenty of drinking water—not a place to bathe in as people formerly thought, but enough to drink. The following are the grasses which the writer has noticed them eating: Crab grass, red stem, cane or Bermuda, nut grass, and several kinds

that we do not know the name of. Geese will not eat weeds excepting young cockle burs. If cotton is plowed regularly one goose to the acre is sufficient to eat the grass left among the cotton in an average season.

Now is a good time to castrate pigs which are expected to be fattened early in the fall. Our plan is never to let the males get more than two or three months old. Always do such work early in the morning. We do not lose one-half of one per cent. Nearly all that die from the operation are performed on in the afternoon. In operating cut just as low down as possible so that the blood, matter, etc., can drip out; the wounds will heal more rapidly. It is necessary to wait until the sows get a little older. The cause of trouble with them is: first, in sewing not catching the thin skin on the inside; second, sewing the entrails (we have seen several die from this cause); third, sewing too tight; you should simply draw the edges together. Nature has provided the animal creation with something like glue which causes the sides of a cut to stick together if they come in contact. Always use flax thread as it will rot much quicker than cotton.

A great many farmers lose a great deal of meat by not attending to such work early. Our pigs always grow faster after the operation. We do not want any particular time of the moon, but prefer a damp to dry weather, as hogs do better when they can have a plenty of water to wallow in.

If you would have success with your hogs, commence feeding at once. While the weather is warm it will not cost anything to keep the animals warm and all the feed can be used to make meat, but if you wait until cold weather to fatten animals, it may require almost double the feed to do the same work.

HARRY FARMER. Columbus Co., N. C.

Live Stock and Dairy.

SHEEP IN THE SOUTH.

III.

Science and Practice—A Little Story—Wool and Mutton or Fleec and Flesh—Sheep for Wool—The Merino and Its Grades—Stall Feeding the Surplus—Sheep Manure—A Buzing Fact—Blooded Stock Rams—Four Cardinal Points.

Correspondence of The Progressive Farmer.

It is one thing to have sheep husbandry scientifically pictured out to the human intelligence with its vicissitudes, its losses and profits clearly shown up to the common understanding; while it is quite another matter to take hold of a flock and live with them daily, following them through wet weather and dry, warm and cold, balmy breeze and blizzard, through fortune and misfortune, high markets, and low ones, to the final goal of crowned success in practice.

The theorist, or rather scientist, points out the ways of the sheep business; while the practitioner too often blunders along and sometimes sneers at the scientist saying, "his book theory plans won't work out." There is one thing that both simple and learned should well understand and know: that the science of sheep husbandry, as well as the science of all things else, has a perfect law that will thoroughly operate its own perfections, regardless of all conditions. Conditions will adjust themselves to scientific law when it is fully understood. The practical shepherd should know the law as it relates to all parts of his business and adjust the conditions of his business to suit; in doing so success will surely follow.

Furthermore, there never was success attained in sheep breeding and wool growing without theories and plans being first in the head before being practically carried out with the hand.

To illustrate, let me relate a little story. When the writer first moved his high bred flock from West Virginia to Missouri, one of Missouri's eminent statesmen in looking over the sheep said: "Many of our farmers here in Missouri keep sheep and they get fat in summer. To be sure they get poor in winter, but in the spring when their wool gets loose, they chase them through the thorns and briars which pull the fleece off. That's the way they shear them and the children follow after and gather wool from the bushes. They say it is a profitable business, and no doubt, but with your scientific breeding and improved methods of keeping, your business will be a success, so we welcome you to the State." Within six years after that time it was proved with that flock that intelligently bred sheep, fed on Missouri grown grass and grain, could successfully compete with any other sheep in the United States or in France.

What has been done in Virginia and Missouri, may as readily be accomplished in North Carolina and other portions of the South.

The two great purposes in sheep husbandry are wool and mutton or their fleeces and their flesh. I will first write of the business mainly for wool growing and afterwards for meat production. I make this distinction so as to be plain and minute as possible, and not because some breeds are exclusively intended for one or the other of these purposes. There is no well-known breed in the United States but that may be profitably kept for either purpose, and yet no breed but that the purpose of its lesser usefulness makes it more profitable when added to its greater one.

As a wool-producing animal, especially for large flocks, the Merino, with its grades easily stands at the head of the list. If wool is to be the prime object of the farmer or planter it would be well to start with a good stock or blood selected from one or another of the American Merino types of sheep. If from any reason the pure or very high grades cannot be had, then good common ewes of any breed or the woods breed may be had and by using large well-formed, heavy-fleeced Merino rams, a good flock is soon bred up. If the ewes lack size and good form, which

they usually do, they might well be crossed first for two successive years with thorough bred Shropshire rams, or better for three years, and from these three crops of ewe lambs select a flock of ewes and put off the old flock. For this purpose Dorsett rams may be used, but in either case let the ram be heavy fleeced, squarely built, well developed body, having undoubted constitution and a good pedigree. Use the same stock for all the ewes each year so that all the young ewes of the coming flock may be uniform in characteristics which is a very important point in future usefulness. Persistently continue to breed these improved ewes and their offspring to large heavy-fleeced Merino. The result will be an ideal flock of grade sheep for wool, the weathers and old sheep of which can be fattened and sold for mutton if not otherwise. Breeding pure bloods and crossing for wool and mutton will have attention in a future chapter.

The number of sheep to be kept depends on the size of the farm and the other kinds of industry followed on it. Take for example a quarter section of land, 160 acres, where cotton growing constitutes about one-half the business, while grain and other things constitute the other half. Fifty head of ewes would be a fair number to start with, and each fall sales should be made so as to cut the flock down to that number of breeding ewes each winter. The best plan by which to dispose of the weathers and surplus as soon as the farmer can prepare for it is to rather closely confine and stall feed all the surplus off to the mutton market every winter. It is very profitable to do so. In the spring they can be sold to be delivered with the wool off, which brings cash also. Thus the farmer provides a market at home for all his cotton seed, grain and roughness, and a great profit is that derived from their manure, for the manure from a stall-fed lot of sheep, especially where cotton seed meal is largely fed, is a fertilizer of very great value when properly saved and composted. More about this when we reach a chapter on sheep manure as a fertilizer.

The profits from one ewe well fed and cared for will equal that from two poorly fed and cared for. Keep this fact buzzing in your mind like a bee in your hat, all the time that you keep sheep for profits.

A flock of ewes as above referred to would likely cost \$4 or \$5 more per head, or they should be bred up until they are worth and would sell for that price with wool on at the beginning of winter. In this I do not mean "culls" and old ones, but the fifty head selected each fall to form the basis of the next year's flock.

However, suppose a start is made with very common ewes at \$2 a head. A large heavy-fleeced, pure blood Merino ram may be had at not over \$25, expressage under 500 miles included, and at less if a good blooded Merino flock is near by. A Shropshire, Dorsett or Southdown could be had at about similar price, but \$10 extra for a ram of superior form, weight of fleece and size is money well spent. In good flesh he should not weigh less than 200 pounds—if a Shropshire, 250 pounds—and shear, "in the grease," not less than 18 pounds; if a Merino 25 pounds.

The writer wishes to emphasize the matter of breeding, continuously, superior blooded rams even on the most common flock of ewes. It always pays to do so. It is always a loss of profits not to do so.

At above prices I do not refer to rams of superior excellence in high points, that are so carefully considered by scientific breeders who are working along on the front line of progressive improvement at great expense of time, genius and money, nor are such needed for the commonality of flocks. But such breeders always have a large per cent. of such rams as above referred to, that are to be had at reasonable prices.

Even in common wool flocks, at least four essential points should be

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