PROGRESSIVE FARMER

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

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Agriculture.

CULTIVATION OF CORN.

Dr. J. W. Sanders Sends a Reply to the Article of Mr. T. J. Wear in The Progressive Farmer of August 12.

Cor. of The Progressive Farmer.

In your issue of 12th inst., some North Carolina farmer (I don't remember name nor home as paper mysteriously disappeared) criticised some other farmers for planting their corn in rows less than 4½ feet, which your critic averred was the right distance between rows. I read the communication with two surprises: (1) that any farmer in North Carolina should ever plant corn in rows less than 4½ feet apart, and (2) that any good farmer should advise 4½ feet as the proper distance for corn rows.

Now I make the unqualified assertion (and can maintain my position in argument and by the experience of our best farmers) that corn rows should never be less than 5½ or 6 feet apart.

The best acre of corn that has ever been grown was in South Carolina a few years ago, in rows 3 feet and 6 feet apart. That acre yielded nearly 52 barrels or over 200 bushels. Nothing saved it but the 6 feet rows, permitting the light and heat to feed the plant long after the 3 feet rows had been filled up with corn blades, obstructing ingress of both light and heat. Every planter needs to study his soil, and plant and cultivate his corn according to the character of the soil, and varying both according to the differences found on his place. But I care not whether he is to get 10 or 100 bushels per acre, 6 feet is the best distance to yield the crop and allow the proper cultivation.

On land that will make but 10 bushels an acre, plant 1,500 hills, and on land that will yield 25 bushels plant *3,500 hills*, regulating the number of hills on the acre according to number bushels the land will produce in 6 feet rows.

Now as to cultivation. Dry, elevated lands should be cultivated flat and with sweeps as shallow as they can be run. Plow out every other row every week as you do in cotton, securing a mulch of plowed land over the roots of the corn. This is especially advantageous in dry weather, the dry mulch on top protecting the roots from the hot sun and preventing evaporation of the moist soil below. On low ground and land not well drained, slightly elevated rows are necessary, and the turn plow is the proper implement for cultivating the crop. Some root cutting will do in a moist soil where healing is rapidly carried on in the root, but even in these soils this should be done as little as possible. The first furrows ought to be made with very small plows, so the large ones may be able to lap up the dirt close to the corn even to the third furrow away, and the plow should be run as shallow as the nature of the soil will allow, wet and undrained lands needing deeper cultivation than others drier and better drained.

Let me illustrate our system of cultivating the light soils along the coast. Bed the land in five furrow rows, open deep by running Boy Dixie twice in same furrow, drop and cover with foot or harrow. Thin corn to one stalk. Plow out the middle with Boy Dixie without moldboard run both sides of corn. If done well, no grass will be found. Remove such weeds and any grass left. Every week go to one side of corn with Stonewall sweep without the face or moldboard or Clean out every other row weekly until the corn begins to tassel and you will have a clean crop on a flat field and under the most favorable condition to produce a full crop. The old way of barring corn is suicidal, setting back the crop fully two weeks and requiring much more labor to cultivate. For low lands I would cultivate differently—doing the work with harrow and turn-plow.

J. W. SANDERS.

Carteret Co., N. C.

Blood only serves to wash ambition's hands.—Byron.

THE VALUE OF ALFALFA AS A FORAGE, PASTURE AND SOILING CROP.

A Crop not Widely Known in North Carolina—The First of Two Interesting Articles by Superintendent McNair of the Southern Pines Experiment Farm.

Cor. of The Progressive Farmer.

To those who are interested in growing forage crops for cows, sheep, hogs, or beef cattle and who are making preparations to sow something for them this fall the writer desires to say a few words concerning alfalfa; and for the benefit of those who are not acquainted with this plant a brief description will be in order.

A LEGUME.

Not the least of its advantages is that it is a legume which means that it will, when properly treated, gather nitrogen from the air just as cowpeas do. A ton of the cured hay contains from 40 to 45 pounds of nitrogen which in the form of nitrate of soda or cotton-seed meal costs approximately 15 cents per pound.

Like all other legumes it is benefited principally by potash and phosphoric acid and, like the clovers but in contrast with cowpeas, it requires considerable lime.

A PERENNIAL.

Alfalfa is probably the longest lived of the useful legumes. Cowpeas and crimson clover are annual plants, red clover is a biennial or two year plant, but alfalfa is perennial though it may easily be killed under unfavorable conditions.

The writer knows of a small area of alfalfa that was sowed in 1882 and is still yielding crops. There are said to be fields in Mexico which are 75 years old; but, be this as it may, the writer believes that when alfalfa is given favorable conditions it will live as long as a goose. "How long does a goose live?" The writer asked that question of an old farmer once and he replied that he did not know, for he had not lived long enough to see a goose die. Joking aside, it is well known that alfalfa is a very long lived plant unless exposed to conditions which are not congenial to it.

GEOGRAPHIC DISTRIBUTION.

There are few farm crops which have a wider range of distribution than alfalfa. It is without a rival in the Rocky Mountain and Pacific Coast States, it is the leading legume in Argentine Republic and it has been grown along the shores of the Mediterranean Sea for more than 2,000 years. In the States east of the Mississippi River it has not been generally grown but its area is increasing every year and the writer can testify to seeing beautiful fields of it in New York, Michigan, New Jersey, Tennessee and North Carolina. In this State it is a staple crop on Col. J. S. Carr's Occoneechee farm and on the estate of Mr. Geo. W. Vanderbilt at Biltmore.

ROOT SYSTEM

An alfalfa plant has one large tap root with many branches. Where the soil is pervious and the water table low the roots may become very long—perhaps six to ten feet or even longer, but where the water table comes near the surface the roots do not extend far and are not healthy. It is the long roots that enable alfalfa to withstand droughts better than any other crop. Drought diminishes its yield, but it remains green when everything about it is withered and brown, and when rains come it responds quickly to the stimulus.

QUALITY FOR FEEDING PURPOSES.

The quality of alfalfa for feeding cows, sheep, hogs and all young stock is second to none. To cut and feed green it is better than red clover and equal to cowpeas. The stalk is slender and dries into hay more quickly than cowpeas but not as quickly as the grasses.

Feeding experiments with milch cows show that well cured alfalfa hay is nearly equal in feeding value, ton for ton, to wheat bran, and the leaves are superior to it; hence if a process were devised for separating the leaves from the stalks, the leaves could be sold at a high price as a concentrated protein feed and the stalks would make better horse hay than if the leaves remained.

Alfalfa can be pastured but should not be overpastured or it will die. A 1,500 tract of it in the Argentine Republic grazes more than 1,500 cattle all the year besides 100 or more horses. Mr. J. E. Wing of Mechanicsburg, O., pastures both sheep and cattle on it with excellent results.

Grazing does not hurt alfalfa if fields are grazed intermittently, but it does hurt it if the grazing is continuous and close. It lends itself to the practice of soiling (that is, cutting and feeding to live stock in the green condition), better than any other known crop.

PRODUCTIVITY.

The stories told of the productivity of alfalfa are many and varied. It may be cut in the climate of New York three or four times per year, and in North Carolina four or five times. The total yield of these several cuttings should range from three to seven tons per acre per year of dry hay.

On good land suited both to corn and alfalfa the latter plant will yield more pounds of dry matter per acre than corn and its feeding value per ton is greater than that of corn (the whole plant). Indeed these two crops should go hand in hand, for corn is the king of grasses and of carbonaceous foods, while alfalfa is the king of legumes and of protein foods.

How to grow alfalfa and what dangers are to be avoided will be the theme of another article which I shall furnish The Progressive Farmer.

A. D. McNAIR.

Southern Pines, N. C.

A CROP ROTATION FOR EASTERN CAROLINA.

Cor. of The Progressive Farmer.

I had three acres in Canada field peas and oats cut off in June, and on July 2, planted two acres to watermelons. These are looking very well; will give them their last working September 1st, with a harrow, and sow crimson clover on top, twenty pounds per acre. The third acre was planted to fall Irish potatoes on August 1st, they having been under cover for 30 days and beginning to sprout. They are coming up now. Land was ploughed deep, broad cast, deep furrows run three feet apart and 400 pounds cotton-seed meal applied. Covered with harrow and thoroughly mixed, marked out on same furrow and potatoes cut with one certain eye; then dropped and two good furrows thrown on them. Cultivate by harrowing crosswise, and at last working sow crimson clover. At proper time ship melons and dig potatoes with hayforks and turn the whole loose to the clover.

Take a piece of wood and cut the ends away till it fits the rows on each side. Knock off the heads of as many forty penny nails as needed and drive them in the bottom, put a beam and handle on it, run down cotton rows. It will pulverize the top of the ground nicely. Sow crimson clover twenty-five pounds to acre. You will be surprised at the results; you can graze this after the cotton is all picked out till April; good for sows, pigs and lambs. If near your house your chickens vill lay all winter. Take stock off in April; it will head in May. Turn under when in full head with a double plough, use a chain if necessary. Let it stand two weeks, harrow thoroughly and plant in peanuts.

You will find that your land will be benefited as much in this way as by sowing peas in your corn. Your Uncle Jack has practiced this for some years, and has kept his land from washing in winter and had plenty of humus in the land for the next crop. Peanuts planted this way attain their greatest perfection.

What good are turnips for animals? Will Professor Massey or some other scientific man answer in Progressive Farmer?

JACK JOHNSON.

Hertford Co., N. C.

Often change doth please a woman's mind.—Sir T. Wyatt.

LOUISIANA COTTON FARMERS ORGANIZE.

They Have Formed an Association and will Market Their own Product.

All the leading cotton planters of Louisiana have organized themselves into the Cotton Producers' Association, with Shreveport as headquarters.

The members pledged themselves not to sell or dispose of cotton seed during the season of 1902-03 except through the exchange at Shreveport, and that the exchange will receive all the seed and do all the selling, being thus able to fix prices, which will be uniform.

A committee was also appointed to assure concerted action to combat the railroads and fix the proper railroad charges for the transportation of cotton seed.

CURING CORN FOR SHREDDING.

How to Avoid Damage by Rainy Weather.

Cor. of The Progressive Farmer.

Please give me by return mail or in first issue of The Progressive Farmer a plan with full instructions how to shock corn in the field so it will not damage by rainy weather before it is ready to shred. I have been shredding mine for two years. I use a No. 11 Keystone snapper and shredder driven by Heebner's 3-horse lever treadpower, and they do the work nicely. The only hindrance to its being up to the general recommendation is in the difficulty of the damage occasioned while curing for shredding. I have not yet been able to avoid a considerable loss in this direction.

Kindly furnish detailed information asked for at once, as week after next will be too late for this season.

MAURY WARD.

Duplin Co., N. C.

(Answer by Dr. Charles W. Burkett, of N. C. A. and M. College.)

In answer to this inquiry, we have always found it the best plan to put the corn in the shock in the following manner:

The corn from four hills is tied together, that is one hill or stalk of corn from one row is tied to the stalk of corn or hill in another row, then two other hills in the same row and corresponding to the two others already tied, are tied across these making a "gallus" or "stand" around which the corn in shocks is placed. The corn is thus supported in tne "gallus" and from five to ten armfuls on each of the four sides of the shocks. When this is done the shock is tied with either stalk by breaking the corn between the joints or with binder twine; in so doing the shock is perfectly made and will stand, ordinarily, the most severe storms. Because of the looseness in the center the corn will thoroughly dry out so as to cause no mold or decay in the shock. This method of building the shock is far more desirable than cutting the corn first and laying on the ground after which it is set in the shock and tied. This latter method, while universal, causes a great deal of mildew, because the corn is too closely compacted together and thereby does not thoroughly dry out. The making of the "gallus" is a simple affair and can be very easily learned. Simply select any four stalks or hills; three or four feet apart, each way and in two rows, then below the tops over in the center twine the leaves together around the other stalk or hill, thus making a solid and staple support. Then as soon as the corn is cut it is carried in the arm and set around the shock where it is left to dry.

New York, Pennsylvania and Ohio capitalists, headed by George W. Ireland of Philadelphia, have purchased a tract of 350,000 acres of the most desirable land in Cuba. It has been discovered that Santiago province, between Santiago de Cuba and Manzanillo, on the south coast of the island, is capable of producing the finest grade of sea island cotton, and it is the purpose of the new company which is known as the George W. Ireland Land Company, and will have headquarters in Philadelphia, to begin the culture of cotton in great quantities at once. Four million dollars will be spent in improving the property.

INFORMATION FOR THE SILK GROWERS OF NORTH CAROLINA.

Cor. of The Progressive Farmer.

The North Carolina Department of Agriculture is in receipt of an offer from a silk manufacturer to purchase all the cocoons grown in the State at a fair price, according to the quality of the silk as shown upon the reel. Silk-growers who wish to turn their cocoons into cash should accept this offer, as the best that can be obtained under present circumstances. Those who wish to hold their cocoons for a possibly better price, can do so by storing the well dried cocoons in tight tin boxes kept in a dry place. They will keep indefinitely. Those who wish to sell now are requested to separate their cocoons carefully into three grades, viz: (1) Unstained, firm cocoons. (2) Stained and soft cocoons. (3) Perforated cocoons. Pack each grade separately and forward to Gerald McCarthy, care N. C. Department of Agriculture, Raleigh, N. C. Transportation must be prepaid. Cocoons once received at the Department can not be reclaimed as the different lots will be bulked together and sent to the manufacturer. Quantities less than 1½ pounds can be most cheaply sent by mail. Quantities less than 25 pounds may be sent by express. Over 25 pounds should be sent by freight. All cocoons sold under this offer should reach us before September 1st.

In selling the cocoons the Department acts only as the agent of the grower. No charge is made for such service. The Department does not guarantee any particular price, nor any thing else. It will endeavor to secure the highest possible price, and the entire sum so received, less only actual charges will be divided among the owners of the cocoons according to the value of their goods.

Silk growers must bear in mind that first attempts at any industry are as a rule crude, and are more profitable in experience than in money. With further experience and with silk filatures at work within the State, the quality of the silk and its selling value will greatly increase. Silk growing is a good business for women and children who can not do heavy work, and those who have begun should persevere. In order to secure the location of silk filatures and factories within the State it is necessary to expand the cocoon producing business into larger proportions. Mulberry trees must therefore be planted to furnish food for silkworms. The Department is in receipts of offers of rooted seedling trees of the white and Chinese mulberry at $6 per 1,000. Every farmer or villager who has good light and dry soil should plant at least 100 mulberry and 20 osage orange trees this fall. In this connection it must be born in mind that what is called the "white mulberry" in many neighborhoods, is in fact the Otahetie mulberry, which has very little value, and should not be planted. The best mulberry for feeding silkworms is the Multicaulis or Chinese variety. The Italian or Moretti mulberry is excellent, but at present is not easy to secure in this country. The Osage orange is very good, and being earlier and hardier than the Chinese mulberry a few trees or a short hedge of it should be upon every silk farm. Full information as to the method of planting and cultivation of mulberry will be sent to those wanting it. The best time to plant the trees is October. Those who want to buy mulberry and osage orange trees should write to Thomas Mehan & Son, Philadelphia, Pa. To save freight on trees the silk growers of a neighborhood should combine their orders, and order at least 1,000 trees. The seedling trees at above quoted price are necessarily small. But with good care they will grow fast and be fit to feed silk worms after three years. Those who prefer to plant larger trees can secure them of the above named firm at a higher price.

GERALD McCARTHY,
Biologist N. C. Dep. of Ag'r.

Choose an author as you choose a friend.—Roscommon.

Poultry and Bees.

HOW TO MAKE BEES PAY.

"Will it Pay the Farmer to Fool With Bees?"—North Carolina Admirably Adapted to Honey-Producing, but the Industry is Poorly Managed—Care and Attention Necessary, but they Pay Good Dividends.

Cor. of The Progressive Farmer.

The question has often been asked: "Is there any money in bees; will it pay the farmer to 'fool' with them?" No; it will not pay him to "fool" with them. No more than it will pay him to "fool" with a wheat, tobacco, or cotton crop. But if he will give them the same thought, study and attention he gives the other branches on his farm, he will find, in the course of time, that nothing will pay him better.

Too many go into the business with the erroneous idea that bees require little or no attention; that they can take care of themselves. They put them off in some out-of-the-way nook or corner on the plantation, and visit them as a rule only once a year and then to take what little honey they may have stored. Often the amount is very small, and they at once pronounce them a failure.

Others give them more attention. In fact some have quite a number of colonies and take quite a lot of honey, but when compared to the income from the other branches on their farm, it cuts no financial figure at all. Their bees, as a rule, are in the ordinary straight-up-and-down boxes. They are allowed to run their affairs to suit themselves. They swarm when they like—often from one to four swarms coming from one box during a season. A few of these swarms are hived, but the most of them go to the woods and talke up their abode in a hollow tree.

Now, a box of bees should not be allowed to swarm but one time during the season, where a colony swarms two or three times the force left in the old box is so weakened that there is not enough bees left to make any surplus honey; in fact, it often happens that there are not enough to protect the combs, and either the robber bees or moths or wet worms take possession and wind up the business for that box.

There are too many such "bee-keepers" in our State. And it is this class that are continually saying, "Oh, I have 'fooled' with bees, there is no money in them." If they would take some up-to-date bee journal, and read the articles of men who have grown gray in the business, whose colonies of bees number anywhere from 500 to 5,000, who ship honey by the carloads, and whose incomes amount to thousands of dollars yearly, perhaps they would change their tune. The fact is, North Carolina is behind in this important industry like she is in a great many others.

California, as is known by every one who knows anything at all about the matter, has an international reputation as a honey-producing State. Her average yield is 3,000,000 pounds, and she ships to the Eastern markets from 200 to 300 carloads annually. According to the United States Census Bureau Report for 1899 gives North Carolina 244,539 colonies of bees, mhile California is credited with only 125,444, about half the number in North Carolina. Now isn't it rather strange that North Carolina with twice the number of bees as California should make no showing at all as a honey-producing State? Is it because, as might be supposed, California is a better State for the bee business than North Carolina, or the difference in the management of bees?

I should, after reading and considering, say the latter; because, in the first place, beekeepers in California can only count on two good honey years out of every five, and besides have to contend with foulbrood and other diseases that are totally unknown in North Carolina. From what I can learn, North Carolina is one of the finest States in the Union for the production of honey. Her natural fields are abundant, and as good as can be found anywhere in California

(Continued to Page 8.)