

PROGRESSIVE FARMER

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

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Agriculture.

A SUGGESTED REMEDY FOR CUT WORMS.

Cor. of The Progressive Farmer.
Many people now wish to know how to get rid of cut worms? The nights are so cool that they are cutting down many young plants.

As a remedy, crack or crush china berries and put one under each plant when setting them out, and you will not be troubled with such worms. Unless the berries are mashed they will sprout and will have to be removed or grow to be large bushes before the cabbage are used.

MRS. J. L. D.
Wake Co., N. C.

CORN FOR SILAGE.

Cor. of The Progressive Farmer.

Those who intend growing corn for silage purposes will perhaps be interested in an experiment made by the New Jersey Station last season when Southern White corn was planted, the kernels being placed 10, 12, 14 and 16 inches apart in the drill. The seed required per acre at these different rates of planting was 6, 5, 4 and 3 quarts respectively. The largest yield was obtained where the kernels were planted 10 inches apart which took 6 quarts of corn per acre. This plant yielded 2.03 tons of silage corn, or nearly 21 per cent. more than the plant with the thickest planting. While the thickly planted plant suffered most from dry weather and produced the smallest ears, still the results indicate that the thickest planting was the most profitable for silage corn. The thick planting naturally produced the smallest stalks, which are the best for forage purposes.

GUY E. MITCHELL.

THE AGRICULTURAL YEAR-BOOK.

The Yearbook of the Department of Agriculture for 1901 is now in press and it is hoped will be ready for distribution some time in June.

As usual this volume is in three parts. In accordance with law, the first part is devoted to the annual report of the Secretary of Agriculture; the second part consists of the miscellaneous articles contributed by the various scientists and heads of divisions, while the appendix contains the directory of the agricultural colleges and experiment stations and lists of various agricultural, horticultural and dairy associations.

The Yearbook is a volume of about 800 pages, and is illustrated with a frontispiece, 90 plates, of which 18 are handsomely colored. The regular edition is 500,000 copies, of which 470,000 are by law placed to the credit of Senators, Representatives and Delegates in Congress, the remaining 30,000 being allotted to the Department of Agriculture.

The volume contains thirty-three miscellaneous articles, the most important of which are:

"Some Problems of the Rural Common School," by A. C. True; "Insects as Carriers and Spreaders of Disease," by L. O. Howard; "The Future Demand for American Cotton," by J. L. Watkins; "Progress in Plant and Animal Breeding," by Willet M. Hays; "Agricultural Seed," by A. J. Pieters; "Mohair and Mohair Manufactures," by George Fayette Thompson; "Road Building with Convict Labor in the Southern States," by J. A. Holmes; "Agriculture in the Tropical Islands of the United States," by O. F. Cook; "Little Known Fruit Varieties Considered Worthy of Wider Dissemination," by William A. Taylor; "Government Co-operation in Object-Lesson Road Work," by Martin Dodge; "The Home Fruit Garden," by L. C. Corbett; "Two Vanishing Game Birds," by A. K. Fisher; "Experimental Work with Punguous Disease of Grasshoppers," by L. O. Howard; "Floods and Flood Warnings," by H. C. Frankensfeld; "Progress of the Beet-Sugar Industry in the United States," by Walter H. Evans; "The Hemp Industry in the United States," by Lyster H. Dewey; "The Chinook Winds," by Alvin T. Burrows; "The Tuberculin Test for Tuberculosis," by D. E. Salmon; and "Commercial Apple Orchard," by G. B. Brackett.

HARRY FARMER'S TALKS.

LXXXVI.

Cor. of The Progressive Farmer.

We want to follow a few copies of The Progressive Farmer and see who takes the paper and also learn some of the ways of the readers. In this way we may see the reasons of the success and failures of men in different callings throughout the State.

Kind reader, do not think this is aimed at you in particular, but think over some of the facts drawn out, and after you have read it, ask yourself that solemn question which was asked by men in a trying hour long time ago: "Is it I?" It is our purpose to benefit all who may read these Talks and help every one of you.

A VISIT TO A FLORIST'S

With these remarks we jump into the mail bag with the paper early in the day on Tuesday and find ourselves in the big post office at Raleigh. We notice one Progressive Farmer is put in a box to be delivered by a carrier in the city; so we follow and find ourselves at a large green house. We walk in to see what is inside. We look around at the beautiful flowers and other plants. This man began business on a small scale and has worked up. Nearly every successful man had to begin at the bottom and work up.

One trouble with a great many men is they want to begin at the top; as a general thing, such people work down. No one can ever succeed in any calling without first learning the details. The little things are often the most important.

PERSISTENT EFFORT.

This florist wanted a lemon tree; so he plants the seed or gets a tiny plant and puts it in a large barrel so that he can put it in the house during the cold weather, for the lemon, being a tropical plant, cannot stand much cold. It has taken several years to get it to bearing. It must have taken as much trouble to get up to the bearing age as it would to raise a pet lamb. But now we see him rewarded by several clusters or bunches of lemons. What a pleasure it is for him to look at the fruit which will soon be ready to eat.

As we stand and gaze upon the many beautiful flowers, the result of years of toil and care, it makes us long to have something of this kind for our own. It is said, "What the eye does not see, the heart will not grieve after." Here is a house filled almost full of little flower pots, and each pot as a little rose growing in it.

CARE AND ATTENTION

The house being covered with glass which lets in the light and heat of the sun, does not let in any rain, so every day or two the plants must have some water. With a long rubber hose he gives them a nice little shower. It reminds us of the time when we had to nurse a baby brother. How often he had to have water and something to eat! Every time we got busy with our work making carts and wagons with pine bark wheels, he would cry for something, and we had to wait on him, only to be rewarded by his breaking one of our carts. But he is grown now, and gone to a distant State to dwell. So these flowers will be gathered in the winter and shipped to New York and other large cities to cheer and delight people who are shut in by the deep snows and cold of winter.

THE GREATER THE RISK THE GREATER THE PROFIT.

Does this florist run any risk? Suppose there should come a heavy hail storm where would all those glass houses be? The cost runs up into the thousands of dollars. Brother farmer, we are some times afraid to put out a small amount of labor and money in some enterprise for fear we would lose it. Did you ever think that the greater the risks the greater the return for your work? Some times we are so afraid that we actually will not do what common sense or our better judgment encourage us to do. This man must not neglect to close the houses in cold weather, or give the flowers their regular bath, for the failure here would ruin his business.

After looking at the flowers and that lemon tree it makes us hungry so we must hunt some fruit.

HARRY FARMER.
Columbus Co., N. C.

FROM THE BLACK RIVER SECTION OF SAMPSON COUNTY.

A Magnificent Farming Section Awaiting Development.

Cor. of The Progressive Farmer.

Hot, dry weather cut off the strawberry crop in this section to such an extent that several farmers barely paid expenses.

Tobacco has been cultivated for the last three years in lower Sampson. Our lands are well adapted to the culture of the finest grades of tobacco and those who have tested it find it a far more profitable crop than cotton.

Some few have begun to raise for Northern markets caladiums, tube roses, and cabbages.

There is no finer section of North Carolina for all sorts of farming than the Black River section of Sampson County. I have lived in all sections of the State, but I have never found any where a country that possesses more natural advantages for trucking, stock raising and berry culture. But the very bounty of nature is in the way of the farmer's prosperity.

Labor is scarce and very unreliable. What little we have is hauled off in wagons to the strawberry fields near the railroads the middle or last of April to begin picking strawberries at the very time the farmer most needs help in planting his crop. Then comes the wild whortleberry crop in May and June and then the deer-tongue which continues till near frost. The negroes rely upon these gifts of nature for a support during the crop season and it is impossible to get labor sufficient to cultivate the large farms after they are planted.

This is a fine country for energetic white men to move to. We need people to till the lands already cleared. Lands are cheap. Sheep and cattle are easily raised. The river and creek bottoms are wide, level and fertile. The sand ridge adjoining the river bottoms are healthy and produce excellent tobacco and early truck. Grass grows naturally and with very little fertilizer and with one plowing any farmer can make a fine hay crop. Churches are in easy reach of every home, but we have not people enough to perform the work on the farms and gather the wild crops. A man can easily buy a farm here and pay for it in from three to five years with its products, if he can get it cultivated and the crops harvested.

And it is a healthy country. I moved here from Raleigh five years ago in the month of July and my own health and that of my family has been better than in any other place I ever lived during the same length of time. Our greatest need is people, people, more people of the right sort. Can't you send us more people? We need canning factories, cotton mills, saw mills, to turn out finished products in dressed and matched lumber, sash, doors and blinds, crates of all kinds, and we need better railroad facilities.

Send us some live, energetic people to help build up the country. They can buy lands very cheap and in good neighborhoods, and enjoy as good health as they can in the mountains.

Sampson Co., N. C.

RAISE CATTLE.

Says the Elizabeth City Tar Heel: Frequent reference to the importance of cattle raising at home has been made. The present high prices have resulted in nothing less than the development of a growing scarcity of beef in the West. This suggests the opportunity open to the farmers of Eastern Carolina.

The lower counties of this State are peculiarly adapted to the raising of cattle. The natural advantages are such as to encourage the raising of beef cattle. There is no food more preferable for cattle than the reed. There are thousands of acres of reed land right in this section that could be utilized in this industry.

In view of the fact that practically no knowledge of stock raising is necessary to launch into the business and also considering the ease and inexpensive in conducting a vocation of this kind; it is but surprising that we have not more cattle raisers than we have. In making inquiries among the

butchers hereabouts we learn that owing to scarcity of cattle in this section that most of the beef used by them is the western product.

The raising of beef cattle should receive the serious attention of our farmers. Hon. Thos. Skinner has recently purchased a tract of land south of here comprising 1900 acres. He has fenced in this property and stocked it with cattle. Mr. Skinner is no fool. He knows that no more paying investment could be made. He has set an example that others would do well to follow.

BREEDING NEW WHEAT.

In an article on "Breeding New Wheats," in the World's Work for May, Mr. W. S. Harwood says:

"The work of wheat-breeding began many years ago on the great Vilmorin estate in France. M. Henri Vilmorin carried on extensive experiments in the creation of new breeds, more than a thousand new wheats having been tested by him.

"Ten years ago similar work was begun at the state institution in Minnesota, not only to create new breeds of wheat, but to carry them forward through a series of years until enough wheat of a superior variety should be accumulated to enable the farmers to make the final test themselves. This work has been carried on at no expense to the farmer, for all the results are for the benefit of the public.

"To create a new wheat, the pollen from the flower of one wheat must be artificially transferred to the stigma of another wheat. Wheat is a self-fertilizing plant. Left to itself it will reproduce itself throughout endless centuries. Great care is necessary in the work, and trained men are essential. As soon as the pollen is transferred—which is done about four o'clock in the morning at the hour when the wheat forest open—the head of wheat is incased in a tissue sack, so that the work may not be interfered with by any pilfering insect or bird. Two of the best-known varieties are selected, one for the father, the other for the mother of the new race. When the harvest comes it may be that the new wheat has some of the poor, and few of the good, characteristics of the parents; or the reverse may be the case.

"From the single head which results as the first harvest only a handful of kernels is threshed out. This handful is of immense importance, for these kernels may become the source of a mighty race, destined not only to supplant the old wheats, but to add enormously to the wealth of the world. But the last results are slowly won, for the first harvest is very meager, and the second and even the third are small. But after a number of years enough wheat can be garnered to sow the twentieth of an acre; and then comes tangible results. To breed a new wheat requires infinite pains and patience. It has taken ten years to bring the new wheat varieties at the Minnesota Experiment Station to the farm test.

"From the hour of the creation of the new wheat in the gray of a summer morning, throughout its life, a careful record is kept of every event in its history in a book, which is the record of the wheat's life.

"Selection plays an important part as well as breeding. At every step only the best wheat kernels and wheat stalks are preserved; defectives are rejected. No effort is spared to give the new wheat the best possible start in life. In some ways the selection may be considered more important than the breeding itself. During these experiments nearly five hundred wheats were thrown away as defectives. Out of the entire number bred less than a dozen were retained. A number of these kept for future trials were especially prolific, registering as high as eight to ten bushels an acre above the old wheats planted alongside of them and receiving exactly the same treatment.

"It seems fair to say that the increase of the new wheat over all old varieties will be at least two bushels an acre. In the three States of Minnesota, North Dakota and South Dakota there are on an average about fifteen million acres of land planted to wheat. When the new wheat is in use over this region an increase of only two bushels an acre will make a crop at least thirty millions bushels larger than the old varieties would have yielded."

SILOS AND ENSILAGE.

Address Delivered by W. L. Williamson Before the Georgia Dairymen's Association.

At the last meeting of the Georgia Dairymen's Association, President Redding introduced Mr. W. L. Williamson, of Harmony Grove, who, he said, had long experience in the successful conduct of a dairy and in the use of silos and ensilage.

Mr. Williamson then spoke as follows:

Mr. President, Ladies and Gentlemen: I am asked by visitors to my dairy at home more frequently perhaps than any other question, What is the best feed for a cow?

The idea seems to be that all feeds are alike in kind; that they only differ in the amount of digestible nutriment contained, that if a cow could eat enough wheat straw for example to sustain her, that wheat straw would be all that she would need, or that if she could get enough cotton-seed meal or corn meal, that that particular thing is all she would need.

My reply of course has to be a little extended to such questions. I have to explain that there are only a few feeds that any ways near approach the proper standard—in other words, that contain the proper proportions of the different feed elements. Wheat bran and pea vine hay are almost perfectly balanced, and a cow would be sustained and do fairly well on a ration of these two feeds, or of either one of them, and if there was nothing else involved, I could answer them and recommend one of these things.

VARIETY OF FEEDS NEEDED

But in successful feeding, a cow requires a variety. She not only requires the food elements in the proper proportion, but she will do better when given a number of different foods. She can use more feed with a better relish and can make better returns for what she eats. There is another peculiarity about a cow's food. In a state of nature they eat nothing but grass and bulky feed, and on ordinary wild grass, which is not very nutritious, they can only eat enough and use enough to maintain the growth and conditions of the cow and to raise the young. I do not think they could eat enough wild grass to make dairy cows. Of course they could do it on a variety of cultivated grasses.

FEEDING FOR MILK

If you make a dairy cow out of her, if you develop her beyond her natural condition, you have got to feed her upon something from which she can get the excess of feed elements needed to make milk. She has to have something that is easily digested, and that she can eat and get the required elements, and so in making up her rations, it is necessary to feed a certain amount of bulky, and a certain amount of concentrated feed. Now, with this explanation, I will have to say that if I was called on to name the best coarse food, one that we could least afford to do without, I would have no hesitancy in saying instantly corn ensilage.

Pea hay contains nearly as much protein as wheat bran. It only lacks two pounds I think, to the hundred in having as much protein, and so they are very nearly equal. But even with pea vine hay or corn ensilage, I would leave off the pea vine.

I have fed for a number of years green sorghum. The cattle run on Bermuda pasture, and we supplement that with green sorghum—about all they will eat. We find, however, in our experience, that cows do very much better on ensilage than they do on sorghum and pasture. I think that sorghum has some strong advantages, in the way of resisting droughts, and I expect to continue planting it, but corn ensilage is the best in my judgment.

THE VALUE OF CORN ENSILAGE

I find that ensilage gives better results. The same way with the corn fodder, that is, the cured corn cut ear and all fed. The comparisons that have been made on corn fodder and corn ensilage at the experiment stations show about the same nutrient content, and the experiments as to the resulting products show only about 10 to 12½ per cent. in favor of the en-

silage. But so far as I know, there has been very few of these scientific experiments. I believe ensilage gives better results than the scientists show.

BERMUDA GRASS

I have never seen an analysis of green Bermuda grass. The analysis of the hay is very fine. It is the finest hay outside of clover or pea-vines of any other hay. I think it has 8 per cent. of protein. No other hay that I remember has over four or five per cent. But Bermuda pasture even when supplemented with sorghum is not as good in my experience as corn ensilage.

We have for the last two years milked about fifty cows. We feed them in the winter months ensilage, straw, and pea vines. In the summer they run on the Bermuda pasture and have the sorghum. We keep a record of all our milk, and know what each cow gives, and the difference between the results for the last two winters and the last 2 summers is very marked. They go in the barn about the 1st of November and stay there day and night until about the 1st of May. They receive the ensilage and then in the summer time they go to the pasture and receive the Bermuda and the sorghum. When they went to the pasture last year, they were averaging to the herd about seventeen and a half pounds of milk a day, but when they went back in the barn in the following November, they were giving about twelve pounds. This last spring they went to the pasture giving about eighteen pounds a day. We have not put them in the barn yet, but they are giving slightly more than twelve pounds now. A part of this 40 per cent. difference is due no doubt to other causes, such as working for their living in the hot summer months and living quietly in the stall in winter, but a good portion of it I am sure, is due to the superiority of ensilage.

MANY QUESTIONS ANSWERED.

The following questions were asked Mr. Williamson:

Question: Can you make good ensilage out of pea vines?

Answer: Yes, sir; very good, but corn is best.

Question: What is the effect of cotton-seed meal on the butter?

Answer: Too much damages the butter.

Question: About how much ought a cow to have not to hurt the butter?

Answer: She should have four or five pounds a day and not hurt the butter.

Question: Don't you think the sorghum is a little better feed than corn, before the corn is put up in the silo?

Answer: I do not. When we are cutting ensilage, we quit cutting our sorghum for the time and feed the fresh cut ensilage corn. Our rule has been to bring in a load of sorghum and feed it to the cows right fresh, but when changing to the ensilage corn the milk yield invariably increases, and just as surely goes back again when they are put back on the sorghum.

Question: In what stage do you cut your corn?

Answer: It ought to be pretty well matured. I prefer that it be somewhat beyond the roasting ear stage with an occasional ear getting dry and hard.

Question: In what stage do you cut your sorghum?

Answer: In any stage when we need it after it gets large enough, but no doubt it is best just when it reaches maturity.

Question: What kind of a silo have you?

Answer: Ours is square, but I very much prefer a round or circular one.

Question: You say you keep your cows in the barn?

Answer: Yes, sir; from November to May. Our stalls are three feet wide, and we can make the length fit the cow, as the manger is adjustable, and can be so placed that the cow stands exactly on edge of gutter. We have got sixty-five stalls, and they are generally nearly full. I have no idea that there is one cow in five hundred that gets soiled in that way. They keep clean whether you have bedding under

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