

PROGRESSIVE FARMER

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

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No. 16

Agriculture.

IF I WERE A YOUNG FARMER.

Cor. of The Progressive Farmer.

It has been estimated that each year 4,850 young men of North Carolina take up agriculture as their occupation in life. Agriculture is to be a painful pursuit to them. They are to earn their livelihood by cultivating the soil and feeding the animals of the farm. The majority have chosen this work through desire; some by force of circumstances. These young men wish to succeed; we want them to succeed. But are they prepared for the work? Perhaps some have been well trained and tutored in agriculture by painstaking parents and by careful study of the work. But we know the majority get little acquainted with the processes and practices dealing with up-to-date and modern agriculture.

If I were a young farmer I would fully prepare myself for my work. I would utilize every opportunity to master as near as I could the fundamental principles of my business.

I would not let the young men who are friends of mine go off to college and study and prepare themselves, for the ministry, the law or medicine, be more successful in their work than I in mine. I would prepare myself as fully and train myself along the lines of work I expect to follow.

If I were a young farmer, I would look upon my work as a business needing as careful attention and study as any other. I would train myself for that work. How?

I. BY READING.

I would make it a rule to read carefully, conscientiously and earnestly from two to five agricultural papers. The value of the agricultural paper to the young farmer can never be estimated. Then I would study every bulletin from the experiment station that would come to my hands. Then I would keep in touch with the officers of the experiment station, the editors of the agricultural papers and the officers of the State and National Departments of Agriculture.

I would get all of the bulletins bearing on my work published by these departments. They are sent free for the asking and will help in a hundred ways.

Then I would build up an agricultural library. I would save and file away all the bulletins and agricultural papers I have received. Then I would buy agricultural books, and read and study them. The farmer will find his library as valuable to him as the lawyer or the doctor. I would make it my plan to use the brain in all my farm operations. The time of farming by guess has passed. Unskilled labor on the farm must be eliminated. We must broaden our thought and comprehension rather than our acres. We must train ourselves to think as well as to work. The fertilization of our land with brains will do more than the injudicious use of commercial fertilizers.

II. BY EXPERIMENTING ON THE FARM

If I were a young farmer I would make a study of my farm; I would experiment with my soil and endeavor to solve some of the many problems dealing with my particular work. I would endeavor to master my business instead of allowing my business to master me.

III. BY FARMERS' CLUBS

How many of us have ever tried to consider the immense value to the farmer in organization and mutual help? I would take part in the Alliance meetings or organize a farmers club where my neighbors and myself could talk over our work and study each other's experience. The pleasure, the good, the inspiration that follows such work can not be expressed in words.

IV. MAKE HOME ATTRACTIVE.

If I were a young farmer just beginning farm work for myself, I would improve the time in every way I could. I would paint the house, repair all the fences about the house and barns, wash up the roads about my farm, whitewash the fences, beautify the grounds and make the home as attractive and beautiful as possible. I would

study all of these details and gradually work them out and at spare times and rainy days, carry them out.

V. AGRICULTURAL EDUCATION.

If I were a young farmer I would educate myself in my work. If I were able I would take a course of study in the Agricultural College. If a law college or a medical college is necessary for young men in these lines of work, then it follows that an agricultural college is of service in the same way to the young farmer. The arrangement of four year, two year and winter courses makes it possible for any young man, in whatever circumstances he is in, to get the training in agriculture at the agricultural college.

Young men, think over this matter. If you are to be a farmer, determine to be a good one. Be a good citizen, and your life will be a success, your avocation one of pleasure and profit, and the world better for your being in it.

CHAS. W. BURKETT.

A. and M. College, West Raleigh, N. C.

FARMING OUTLOOK IN WARREN.

Cor. of The Progressive Farmer.

Crop prospects here are very favorable at this writing. Some few have finished weeding corn. Cotton chopping has commenced. The larger portion of the tobacco has been planted and would have all been transplanted but for the scarcity of plants. We have had very good seasons for the work. The cotton is getting a little grassy, but with favorable weather it can soon be conquered. Labor is a little scarce. The spring oats are just fine, but wheat is very ordinary.

J. F. P. HARTON.

Warren Co., N. C.

MOTH TRAPS.

Dr. James Fletcher, Dominion Entomologist for Canada, a man of wide reputation in practical and scientific lines of entomology, writes as follows to a member of the Country Gentleman editorial staff:

"I do not believe in any moth traps except as an emergency measure when some special pest which can be attracted by light appears in unusual numbers. I think that perhaps they might be of benefit, if used just at the time the cockchafer (Lachnosterna) are flying—but even then I should watch very carefully to see that more beneficial insects than injurious ones were not being caught, and if they were even nearly equally represented, I would stop the use of the traps. I have frequently noticed the large proportion of Carabidae and Ichneumon flies which are attracted to these traps on certain nights. Of injurious insects, those most numerous represented, in my experience, were the moths of cutworms and of tent caterpillars. I have particularly been on the look-out for codling moth, but have never seen even a single specimen of this insect attracted to light. In fact I believe that the generalization is permissible that the worst enemies of the orchard are conspicuous by their absence from these lantern traps. In answer to your question whether these traps can take the place of the spraying of trees I say most emphatically—no! Spraying is, in my opinion, a sine qua non with the fruit grower, and the use of these traps is more likely to do harm than good."

Dr. Kilgo referred sometime ago in a speech to the "pain of farm life." To him the average life of the farmer would be very painful, but there is nothing like getting used to a thing. Getting up while it is yet dark, and doing a day's work before breakfast would be painful to a man who rolls out of bed at eight o'clock in answer to the bell in the dining room, but the man on the farm feels the better of the two, and really gets more pleasure out of life. This may sound queer but it is a fact.—Charity and Children.

The wheat crop will be a light one in Surry County this year. In many other counties the crop will be no better.—Mount Airy News.

WHEAT HAY.

A Granville County correspondent of The Progressive Farmer writes as follows:

"About a year ago I saw a statement in The Progressive Farmer about wheat, being almost a perfect ration for horses; also that an acre of wheat that would produce ten bushels was worth \$30 as horse feed, if cut at the right time. Will you please publish again for the benefit of some who may wish to try wheat as feed for horses and be sure to state at what stage of maturity it ought to be harvested and how to cure for horse feed?"

The article asked for, we believe, was written by Dr. Jas. B. Hunnicutt, of Georgia, an occasional contributor to our columns; and we notice that he has an article on the same subject in the current number of the Southern Cultivator. We quote it entire:

"The wheat crop will soon be in condition for making hay. This hay has been eminently satisfactory to those who have tried it. It is about equal to corn and fodder both. As corn is high and with many very scarce, the use of wheat hay must be very helpful. When cut just as the grain is in full dough stage this forage is very easily cured, and furnishes both grain and roughage.

"If cut up when fed there will be no loss whatever. If fed whole, some may fall under the horses' feet and be lost.

"There is no loss in using the wheat crop for hay, but a real gain. Sowed and fed in this way, you get nearly twice the value you will by letting it ripen and save only the grain. When you do that you come in competition with all the wheat-growing sections. But when you make hay and feed it, you get about the same value for the grain and the feeding value of the straw and chaff. This is about the same as the value of the grain.

"If the wheat is allowed to get ripe, then the straw glazes and is not so valuable for feeding.

"Now that corn and hay are both very high, this crop is worth looking after. Not only for horses, but for cattle and hogs this is good food.

"We give below the result of experiments which show that wheat is worth as much as corn for feeding. But if threshed and fed, stock are apt to swallow most of it whole. Hence it is liable to produce indigestion. No such trouble comes from wheat hay.

"If you have not tried it we think you will do well to make the experiment. Cut part of your wheat crop for hay."

The report of the Wyoming Station referred to by Dr. Hunnicutt is as follows:

"The following table shows the number of pounds of digestible nutrients in 100 pounds of both corn and wheat:

	Carbo-	Protein	Hydrates	Fat
Wheat	10.2	69.2	1.7	
Corn	7.8	69.8	4.3	

"The superiority of wheat over corn for young stock evidently lies in the extra amount of digestible protein which it contains. As seen above, each 100 pounds of wheat contains 10.2 pounds of digestible protein, while the same quantity of corn has only 7.8 pounds. This shows the wheat to contain 30 per cent. or almost one-third more protein than the corn. The wheat also excels the corn by 2.5 pounds per 100 in the digestible carbohydrates (starches and sugars) it contains. The excellence of corn for fattening comes from its extra per cent. of oil and also from the larger proportion of carbohydrates and fats to the protein as compared with wheat, the corn having about 10 pounds of these two ingredients to each pound of protein, while the wheat has only seven."

Further light on the matter is furnished by Dr. Charles W. Burkett, of the A. and M. College, in this note from him which has just reached us:

"Estimating a ton of wheat to contain as grain 10 bushels or 600 pounds there remains 1,400 pounds of wheat straw; the two contain 967.12 pounds of digestible nutrients or material that is assimilated in the animal body. A ton of timothy hay contains 952

pounds of digestible nutrients making the two nearly equal from a feeding point of view. Thus if a ton of timothy is worth \$20, a ton of wheat hay (made up of 10 bushels of wheat and 1400 pounds of straw) would be worth \$20.50. If wheat is to be used as hay it should be cut when the grain and straw are in the milk stage. Cow pea hay contains 1010 pounds of digestible nutrients and sells for \$12.00 per ton. In this respect then, timothy hay and wheat hay are both worth in the neighborhood of \$11.50 per ton. This is about the real value. Timothy hay always sells for a good deal more than its real feeding value warrants."

HARRY FARMER'S TALKS.

LXXIV.

Cor. of The Progressive Farmer.

Is it impossible to get Early Rose potatoes? We bought some this spring that appeared to come up to our expectation. Other varieties treated the same are bearing a fine crop. It may be that we expect too much of the Rose potatoes. We planted some Bliss and they came up to our expectations; so in the future we shall let others plant Early Rose but we will plant improved varieties. When we give all the same treatment and one kind will double another, we think it worse than folly to stick to the old.

"When ignorance is bliss, 'tis folly to be wise." If we had planted but one kind we would not have known the difference and would have accepted the poor crop and thought it bad seasons or something beyond our power to remedy that made the difference. Every farmer can not use his farm for an experiment station, but he ought not to wait for others to do all the testing. The same treatment given a plant on the red clay hills around Raleigh would not suit on the sandy plains of the coast region.

As we predicted we have a large crop of bugs and worms which are doing a vast amount of damage to the corn crop this spring. A continuous cold winter is always followed by a large crop of insects. As cold protects fruits stored in a refrigerator so insects are preserved by cold weather. Some farmers say that it would be better to burn all the trash, like corn stalks, dead grass, etc., on the land than to plow it under. This might be best some seasons but our land needs all the humus that can be gotten in it, and it would take hundreds of loads of woods mould to furnish the same humus that the fire would destroy in a few minutes.

But we know that cockle burs, rice and sorghum cane all raise large quantities of bill bugs, which is the worst insect that we have in this section. These insects are raised by the bugs puncturing the green plant near the surface of the ground and depositing the eggs which soon hatch out a grub or worm that remains in the plant until spring, usually about the first of May when they come out and do the most damage. Plowing up the corn and planting it again does no good, for the bugs will eat until mid summer. What is known as the bud worm ceases to give trouble after the 10th of June and plowing up and planting again is alright; but not so with the bill bug. Hand picking seems to be the only remedy. Destroying the plants in which they raise in the fall is the surest way to get clear of them. Guinea, partridges and a few other birds will eat them. They will kill young chickens. The bug is very hard and will claw anything that it can. When the chick takes up the bug in his mouth it seizes the chick by the tongue, and unless it is taken off will kill the chick. The home of the bill bug is usually low lands, though some times it is seen on up-lands.

Rotation of crops seems to be one of the best preventives of all insects.

And if we succeed in bringing our lands up to a high state of cultivation it will be necessary for us to follow a systematic rotation.

HARRY FARMER.

Columbus Co., N. C.

Remember we always receive renewals and new subscriptions with sincere thanks.

"BUSINESS PRINCIPLES" IN FARMING.

The complaint is frequently made that the American farmer very generally neglects the stores of information made available for him by the Department of Agriculture at Washington and the various experiment stations. The systematic study of soils has been going on for many years, and every facility has been offered the intelligent farmer to profit by the published results, and yet very few have taken the trouble to possess themselves of such knowledge. The reason for this neglect is sought in an article contributed by Mr. Frank K. Cameron to the Popular Science Monthly for April. This writer feels compelled to admit that sentiment, as opposed to scientific method, still plays a large part as a governing motive in the management of American farms.

"Business principles," if applied in farm management, would require the farmer to study each soil and its situation, to determine to what crop, or rotation of crops, it may be best adapted. Instead of that, many farmers, according to Mr. Cameron's observation, continue to cultivate the same crops that their predecessors grew, or else follow a mere whim or caprice in the selection of crops, disregarding all scientific reasons for or against a given course. Tobacco is a staple crop in southern Maryland, not because the soils there are better adapted to it than to other crops, but simply because the people have grown tobacco in that region as long as they have grown anything, and they like it. The Maryland tobacco no longer competes successfully with tobacco from certain other regions. The land might be more profitably devoted to other crops. It is sentiment, and not "business," that causes the crop to be grown there year after year.

A CHANCE FOR THE FARMER'S BOY.

Mr. Cameron proceeds to show that the American farmer's boy has little, if any, excuse for remaining untrained in the approved methods of soil management, since agricultural colleges, giving both theoretical and practical instruction, are numerous and efficient. Attendance at these schools is well within the means of a large number of youth from the rural districts. Necessary expenses are not heavy at these schools. "But it is an astonishing fact that they are not availed of, astonishing because to one of a philosophical or scientific cast of mind there are few, if any, fields more interesting or better adapted to the practical application of scientific methods than those of agriculture, and especially of soil management. Yet in our so-called schools of agriculture and mechanic arts it is indeed unusual when the number of students, presumably farmers' sons, who graduate in the mechanical arts as engineers, surveyors, etc., do not largely outnumber the students taking their degree in the strictly agricultural courses. This is even more astonishing when we reflect that there is a demand, and a growing demand, in this country for skilled agriculturists to manage the estates either of rich individuals or of corporations, and the development of special crops for special industries. The demand for men of this description is at the present time greater than the supply, and such as have the proper training and qualifications can command salaries from \$1,500 to \$4,000 or \$5,000 per year, possibly, in exceptional cases, much more. A case could be cited where a fine house and grounds and \$10,000 per year were offered to a certain expert to take charge of a large plantation devoted mainly to the production of a particular crop. These salaries are far above the average incomes of young men in other branches of professional life. The life is in other ways an attractive one; it requires more or less aptitude in the qualifications of the student, for, as in every other branch of professional life, the successful man is one that necessarily keeps up with modern developments along his line; but it must from the nature of the case be largely an out-of-door life, and attractive to any one who has the least spark of the love of nature in his soul."—Review of Reviews.

Live Stock and Dairy.

MOULDING TYPES.

Cor. of The Progressive Farmer.

There is nothing more encouraging to modern breeders than the fact that the different types of milk and beef cattle are directly the results of the artificial methods of breeding, caring and mating of the animals by those who have this industry in their charge. The modern types differ so essentially from those which have not been brought under the dominion of the breeder, and their points of excellence are so superior, that it is natural for man to believe that he has within him the power to make almost any changes and improvements in the cattle. The chief consideration, however, is that these changes are slow, and the improvements necessarily become less noticeable the higher the animals are bred. Thus it is far more difficult to take a standard type of full-blooded Jersey cow, and improve her milk production, than it is to pick up any scrub in the field and by systematic mating with a full-blooded bull make her develop qualities that pay. The improvement of the latter at first is rapid and noticeable. From the scrub to a fine cow is but a matter of a few generations, if proper methods of selection and breeding are adopted. But it may be a question of a dozen generations before any special improvement will be obtained in the ancestors of a full-blooded, standard type cow.

Thus the ordinary farmer and cattle grower have easier work than the professional breeder. The latter's work is slow and oftentimes the results discouraging. Improvements are scarcely noticeable, and nothing but explicit faith in the work would ever make them keep up their good work. It is careful breeding, selection and feeding year after year with the fond hope that each succeeding generation may produce some improvement that will pay for all the work, but more often there are three disappointments or failures to every success. Most of the work must be satisfactory if the standard of excellence is simply maintained. There may be no gain for years.

But the farmer with his poor cattle has a rapid road to improvement before him. He does not have to bother about scientific laws of breeding which concern only the professional breeder. Just a fair amount of common sense, a good knowledge of cattle and their needs, and some experience in his business, will be sufficient. It is for him merely a question of good breeding, feeding and selection. There is no mystery in that, no secret which one must learn in scientific books, nothing but common sense and fair knowledge and experience.

E. P. SMITH.

DAIRYING IN NORTH CAROLINA.

What I know about dairying I have learned by reading articles on the subject in different agricultural and dairy papers, and from everyday experience in buying and raising cows, feeding, comfortable stables, milking, working with milk and selling. When I was 12 years old my father died. I was the oldest of three children; mother had no means for our support. I got work in a store and worked my way up to the position of bookkeeper, kept books and did office work twelve years; confinement undermined my constitution and forced me to open air work. Always having a fondness for live stock, I concluded to try farming, and as the dairy business about my home was conducted in a careless manner, I decided to hitch on dairying and conduct the work in a business way—in short, make it pay. I was in poor health, had less than \$100 in cash, two cows, one horse and a buggy, the best wife any man ever saw and five children. That was the stock in trade when I put an 8-quart milk can in the buggy and began the milk business. Very soon I had three customers of one pint each. After delivering to

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