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# THE PROGRESSIVE FARMER.

Has the largest circulation of any family agricultural or political paper published between Richmond and Atlanta

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

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We want intelligent correspondents in every county in the State. We want facts of value, results accomplished of value, experiences of value, plainly and briefly told. One solid, demonstrated fact, is worth a thousand theories.

The Editors are not responsible for the views of Correspondents.

THE PROGRESSIVE FARMER is the Official Organ of the North Carolina Farmers' State Alliance.

"I am standing now just behind the curtain, and in full glow of the coming sunset. Behind me are the shadows on the track, before me lies the dark valley and the river. When I mingle with its dark waters I want to cast one lingering look upon a country whose government is of the people, for the people, and by the people."—L. L. Polk, July 14th, 1890.

## PRACTICAL FARM NOTES.

Written for The Progressive Farmer by the Editors and Hrs. Guy E. Mitchell.

Here are seven points on fruit growing by Williams, the New Jersey fruit grower:

- Suitable soil for kinds grown.
- A man adapted to the business.
- Fertile soil and clean culture.
- Productive and strong varieties.
- Careful handling and honest packing.
- Novelties touched sparingly.
- Feeding the crops carefully, yet liberally, as a farmer feeds his animals.

We are always glad to help our farmer readers in any way possible, and we are pleased at the manifestations of interest in the farming articles in this paper. Just now many readers seem interested in bee-keeping. Two brief articles on this subject are published elsewhere in this paper. We shall be glad to forward subscriptions to "Gleanings in Bee Culture" at publisher's price, \$1 per year. If you want it one year, send that sum to The Progressive Farmer, Raleigh, N. C. We will also send "A B C of Bee Culture" to any address for \$1.25.

The Agricultural Department has been compiling some figures bearing upon the cost of cotton production per acre. The conclusions arrived at result from the reports of several thousands of cotton planters. The results of the inquiry show that the average cost in 1896 of producing an acre of upland cotton was \$15.42. It was found that the average number of pounds of lint produced per acre was 255.6, and that the selling price was 67 cents per pound. The seed produced was 16 bushels, worth 11.9 cents. About 20 per cent of the planters reporting stated a loss, resulting from droughts, etc. Those who reported a profit in the raising of upland cotton produced an average of 275 pounds per acre, while those reporting a loss raised only 176 pounds per acre. To produce Sea Island cotton cost \$21.95 per acre and the total return for lint and seed of this cotton was \$28.65.

The fact has been brought to light that cotton is produced to a limited extent but at a high rate of profit, by means of irrigation in Western Texas and in the southwestern corner of Utah. In Texas, irrigation had the effect of producing 512 pounds of lint per acre, which is 290 pounds greater than the average for the whole State. An interesting feature of the investigation is the comparative costs of marketing cotton in 1840 and 1897. In 1840 it cost \$18.15 to market a bale from Alabama to Liverpool, whereas in 1897 the cost was only \$7.89.

For the people in general, especially for invalids, infants and young children, the question of a pure milk supply is one of the foremost sanitary problems. The quantity of the staple dairy products (milk, cream, butter

and cheese) that are consumed annually make it all the more necessary that such foods should be pure and wholesome. Great Britain is said to consume annually 250,000,000 gallons of milk. The United States uses yearly 5,209,125,567 gallons.

The fact that man can contract tuberculosis, typhoid fever, Asiatic cholera, scarlet fever, diphtheria, infant intestinal diseases, and possibly malaria, yellow fever and anthrax, by consuming infected milk makes it of vital importance to the public that such a valuable food should be officially inspected, and every possible means should be used to keep dairy milk clean, pure and free from disease producing germs. Numerous epidemics of the above named infectious diseases have been traced to an infected milk supply.

It is also essential that the inspectors prevent the use of preservatives in dairy products, because such drugs are injurious to the human body. Commercial preservatives are used by ignorant or unscrupulous dairymen and milk dealers in order to keep the milk sweet for a longer time. There may be no intentional wrong on the part of the milk vender. Ignorance and innocence may be excusable as long as human life is not at stake; but when human health is ruined and lives are sacrificed the law must come to the rescue and protect public health. The city the State or the Federal Government performs no more important function than that of preventing disease and protecting the health of its citizens.

Especially should every large town and city have a dairy and milk inspector, clothed with power to enforce his mandates.

This inspection should begin with the tuberculin test to determine the health of the cows. Then the location, surroundings, cleanliness, drainage and ventilation of the barns and dairy buildings should be inspected, and also the personal garb and habits of cleanliness of the milkers. Next the water supply should be looked after, and the water itself should be tested for impurities. And, finally, the milk itself should be frequently tested for impurities and for the percentage of butter fat and other solids.

These points are taken from bulletin No. 97 of the Alabama Station, which directs the dairyman how to make all these tests for himself and appends the dairy and milk inspection ordinance of the city of Montgomery.

## ONE HUNDRED DOLLARS FOR ONE DOLLAR.

How The Progressive Farmer Pays the Farmers—What a Farmer Says. Correspondence of The Progressive Farmer. DILLSBORO, Jackson Co., N. C., Feb. 24, 1899.

Enclosed find \$1 for my renewal for your paper. I have not only gained much valuable information by reading The Progressive Farmer, but by adopting many valuable suggestions made by the various writers for your paper, I have been enabled to greatly improve my farm and stock, and by increased production and valuation of farm and stock, I HAVE MADE OVER A HUNDRED TIMES the amount paid out for The Progressive Farmer. I am sure that it was one of the best investments I ever made. I do wish every farmer in the State would subscribe for The Progressive Farmer.

Yours truly, J. M. PARRIS.

This letter goes to prove what we have often said—that the average North Carolina farmer is too poor to do without The Progressive Farmer. A rich farmer may afford to lose the money he would gain by heeding the suggestions contained in it, but no one except a wealthy farmer can afford to do without it.

How many of your neighbors need the paper? Look about and send us a club

## AGRICULTURE.

### CHEAP NITROGEN FOR FERTILIZING.

Correspondence of The Progressive Farmer.

Perfect fertilizers contain three essential elements of fertility, nitrogen, phosphoric acid and potash. All commercial fertilizers sold on the market as perfect fertilizers, contain, or should contain, all three of said elements.

The most of crops, such as corn, wheat, cotton, etc., require a perfect fertilizer. But there are other crops, known as the legume family, such as

clover, cow peas, beans, vetches, etc., that draw the needed nitrogen from the air and consequently do not need a direct application of nitrogen to the soil. Hence, if plants of said family be properly supplied with phosphoric acid and potash, a very rank growth can be supplied.

I will state here that phosphoric acid is usually supplied by acid phosphate, known to the farmers as "acid," that kainit, muriate or sulphate of potash supplies the potash, and that nitrate of soda (Chili salt-petre) is the most convenient form for nitrogen. Kainit contains about 12 per cent of potash and about 33 per cent of chlorine (common salt), which is of value in retaining moisture.

Muriate and sulphate of potash contain each about 50 per cent of potash and can be profitably employed in lieu of kainit, where freight is an object. Now if a heavy crop of clover or cow peas be turned under, at maturity, a bountiful supply of nitrogen will be returned to the soil, and any crop requiring a perfect fertilizer, such as corn, wheat, etc., will thrive well after them without the application of any nitrogen, whatever to the soil. In this case the nitrogen, which costs about three times as much as either of the other two elements, will be virtually grown.

### 'GROWN THAT NITROGEN CAN BE VIRTUALLY GROWN'

"The day will come, if it is not already here, when no farmer can afford to buy nitrogen as a fertilizer. He must raise it as he does other crops, by means of clover, cow peas and other legumes."—Norman Robinson, in The Progressive Farmer of Jan. 7th, 1898. Prof. Robinson was formerly State Chemist of Florida.

"Artificial fertilizers in the hands of an intelligent planter will not be used merely to obtain a single crop. Everything should be directed with reference to permanent soil improvement. \* \* \*

"All progressive agricultural authorities are now urging the use of clover, cow peas and other similar leguminous crops, heavily fertilized, when necessary, with potash and soluble phosphates, as the only practical plan of securing simultaneous soil and crop improvement."—Norman Robinson, in The Progressive Farmer, Aug. 9th, 1898.

"The legumes (peas, clover, vetches, etc.) draw nitrogen from the air and potash and phosphoric acid from the subsoil and store these elements up in their leaves, stems and roots, and when these decay in the soil this fertility is put where succeeding crops can get it, and at the same time the resulting humus puts the soil in the finest mechanical condition."—J. Linn Ladd, Bay City, Texas, in The Progressive Farmer of May 10th, 1898.

Mr. Ladd is a popular agricultural writer and is well known throughout the Union to all readers of agricultural papers.

"We have long been satisfied that the farmers of the South can save half the cost of the fertilizers used and at the same time use more than they do now. \* \* \*

"But instead of paying for 200 pounds of a complete fertilizer and lose all the nitrogen in the first crop, you can spend the same money for twice the amount of phosphoric acid and potash and have the satisfaction to know that these forms of plant food will stay by you till some plant calls for them."—W. F. Massey, Professor of Horticulture of the North Carolina Experiment Station, in Texas Farmer, (Dallas, Texas), December 24th, 1898.

According to the statements of Prof. Massey, fully set forth in the above article, a direct application of nitrogen to a legume crop will be virtually lost, so far as this crop is concerned.

I consider the above authorities ample proof that nitrogen can be virtually grown. Much more could be said, were it deemed necessary.

BRYAN TYSON.

Long Leaf, N. C.

In the Epitomist we note a remark that is just as remarkable as it is true. It says: "Hundreds of poor fields are farmed every year that not only fail to produce paying crops, but are actually running the farmer into debt." It does seem a most remarkable thing that this sort of thing should be kept up so continuously. If a man habitually loses money by cultivating poor land, the only sensible thing to do is to quit it. He can do so in two ways; he can quit farming on his own account or he can improve his land, cultivate less and do it better. With intelligence,

industry and economy, any farmer can make some sort of a living, and at the same time improve his land. If he does not do this, of course there can be but one end to the process, and that is the loss of the farm. And certainly it would be infinitely better to stand considerable hardship in the way of hard work and poor living, with a better condition in view of the future, than to go on in a shiftless sort of fashion and lose the farm and home in the end. With such a soil improver as cow peas at hand there is very little excuse in keeping farms poor.—Ex.

## FROM A PRACTICAL BEE-KEEPER

A Talk on Bees for the Benefit of Beginners

Correspondence of The Progressive Farmer.

Some few weeks ago there appeared in your valuable paper a letter from Miss Myrtle Penny on the subject of "Bee Keeping and Incubating." It appeared from the reading of her letter that she had visited the great apiary of Mr. Doolittle, of New York, as the scenes she describes answer very accurately the history and progress of his great apiary and its origin as printed in his work on that subject. I have been for several years engaged quite largely in bee culture and saw very soon that she had caught on to a very sweet and remunerative vocation. I have often wondered why it was that so few ladies take hold of a business so easily handled and in which there are such tempting rewards. It is a rare thing for a person to once engage in bee keeping on the new and improved methods and abandon it; there is something so fascinating about it, that the more we handle the business the more we like it, and strange to say, beekeepers soon learn to feel that they are a kind of fraternity.

One reason why young people have a horror of agriculture is because the bees will sting. Well, this is a wise provision of Providence; if bees did not sting, we would soon have no honey, for they would soon all be destroyed. The skillful bee keeper, however, knows how to handle bees without getting stung.

To those who would like to examine the subject, we will answer a few questions, which the novice would no doubt like to ask and have answered.

First, then, what should a new beginner first do, if he or she proposed to keep bees for profit?

Answer—Send to The Progressive Farmer and get A. I. Root's A. B. C. of Bee Culture, an up to date book on the subject, which teaches all about the work. Price, postpaid, \$1.25. Read it carefully.

Well, what next?

Answer—Then get a colony or two of bees. If in old gums, transfer them to the movable frame hives, in the way taught in that book.

What kind of hive is best?

Answer—This is hard to answer, as there are so many kinds. We prefer the "Simplicity," because it is simple and cheap.

What kind of bees are best?

Answer—We like the Italians best, as they are more prolific, gather more honey and are not so cross, easier to handle without being stung.

Where can hives be secured?

Answer—Many kinds are advertised in Gleanings in Bee Culture, a semi-monthly paper for bee-keepers, \$1 per year.

Where can the Italians be had?

Answer—Gleanings in Bee Culture will tell you where you can get all such bees and supplies.

What is necessary to constitute an outfit for a beginner?

Answer—A pair of rubber gloves, a bee veil, and a smoker.

What is the smoke used for?

Answer—To destroy the perfume of the poison of the bees' sting and to quiet them.

Why do we need a veil?

Answer—In order to protect the face, as sometimes you move your hands too quick when handling the bees or combs; this starts them to stinging, and you should be prepared for any emergency.

What are Italian bees worth?

Answer—From \$5 to \$10 dollars per hive.

Where could the Italian queens be had in the event we wished to convert a colony of the little black natives into Italians?

Answer—You will find advertised in Gleanings many persons who raise and sell the queens. What are the queens worth?

Answer—From 75 cents to \$3 each.

They may be had from some parties here in Wake county.

How is a queen introduced into a colony of blacks?

Answer—The A. B. C. of Bee Culture will tell you that. It would take a column of this paper to give all the methods.

How many kinds of bees are there in this country?

Answer—The native blacks, the Carnoleon, the Egyptian, the Cyprian, five banded Italian, the hybrid, etc., are all kept.

What is the difference?

Answer—They differ in color, size, and honey gathering qualities.

Could a person start on one or two colonies and increase his apiary to any desired size?

Answer—Yes, by judicious feeding and artificial swarming.

What is artificial swarming?

Answer—Artificial swarming is the dividing of one colony into two by taking five frames of bees and combs from a strong colony and putting them in a new five, where they soon raise a queen and become a new colony.

Does the queen sting?

Answer—No.

Do drones sting?

Answer—No.

What is a drone?

Answer—A drone is the male bee. D. P. MEACHAM.

## FROM A LADY BEE-KEEPER.

Correspondence of The Progressive Farmer.

I have kept bees in a small way about fifteen years. Have read Quincy on Bee keeping, Quincy revised by L. C. Root, Henry Ally on Queen rearing, and a great many smaller works; read the American Bee Journal several years. And if I could not afford but one book on bees, that would be the A. B. C. of Bee Culture, by A. I. Root. It is revised often and anything of importance that comes up is added, as the type is kept standing. I write this for the benefit of the readers of The Progressive Farmer, should there be any in need of such books, and to those who do not wish to buy a book, I will answer any question on bees that I am able through this paper. S. A. P.

## THE SOUTHERN FARMER'S ADVANTAGES.

Secretary Wilson, of the U S Department of Agriculture, Talks With our Special Washington Correspondent on this Subject—Diversification and Education the Hope of the South—An Interview of More Than Ordinary Interest

Correspondence of The Progressive Farmer.

WASHINGTON, D. C., Feb. 24, '99.

In his recent visit South and attendance at the Vicksburg Agricultural Convention, Secretary Wilson seemed to get at the very inside of the conditions there, as he always does when he goes into a community of farmers and growers.

"The convention was composed," Mr. Wilson said, in talking of the conditions South as he saw them, "of representative men from the South and the Northwest and full discussion was had of the present agricultural condition in the South, the cotton crop, and generally what hope there is for bettering the condition of the producers.

"Within late years much of the lands in the lower Mississippi Valley States not valuable for cotton growing have been found to be well adapted to the growing of early fruits and vegetables, for Northern shipments. But this occupies the attention of only a very small per cent. of the Southern people, as it is prosecuted generally by Northern men who have become identified with the South in this line. The pressing question is, and it confronts the whole agricultural South, what is the future of the Southern laborer, who has been growing cotton has not been getting enough for his product to enable him to live comfortably, not to speak of improvements in his condition, education and all that? The cotton crop has been greatly extended over the new lands of the Southwest, particularly Texas, where the heaviest crops are now grown, resulting in low prices—so low that cotton growing is no longer profitable except in favored localities.

"The cotton crop leaves very little that is valuable for domestic animals after the picking is done. In this respect it is quite different from the corn crop of the Northwest States. The farmer there usually keeps live stock; his young cattle grow on the by-products of the field, as we may say, corn stover, wheat and oats straw, with

some grain added perhaps during the severe weather. The great cotton-growing industry of the South is not up to date and has not done much for the people along this particular line. There is a by product, the cotton seed which is exceedingly valuable as a nutrient and much good work is being done at the present time by scientists at the experiment stations in the Southern States to show farmers how valuable cotton seed is for feeding and manurial purposes. The nitrogen content is greater than that of any of the grains; it is richer in nitrogenous matter than beans or peas, richer than gluten, meal or oil cake. The Northern feeder and the European feeder have been using this by product of the cotton fields with great advantage to them, while the loss of its fertilizing properties to the South has been proportionately great. Several very interesting papers, notably one by Prof. Hecker of the Minnesota Experiment Station, showed clearly the comparative value of the cotton seed. At the Vicksburg convention Prof. Hutchinson, of the Mississippi Experiment Station, had a paper showing the value of cotton seed compared with corn meal in beef making. So that we are encouraged to notice that the scientists of the South appreciate the necessity of work being done along these lines to give information to Southern producers regarding the value of this concentrated by-product of the cotton field.

## NATURAL ADVANTAGES OF THE SOUTH.

"The South has more marked advantages over the North with regard to production. It has more heat and moisture, the two great factors of production, and if the cotton grower is to diversify his crops, he must use those natural advantages. The dairy cow would succeed admirably in the South; so would the mutton sheep, but before either is generally introduced, something for them to eat must be provided. The winters in the South are mild; grasses, grains and legumes can be sown in the fall and grow abundantly through the winter; upon them the dairy cow and the mutton sheep may thrive and produce."

"Various forage crops can then be grown successfully through the South generally, Mr. Secretary?" Mr. Wilson was asked.

"This was one of the first propositions to which I gave attention, and concerning which I made inquiry of Southern people. Alfalfa, Italian rye grass, rape, the clovers, vetches, etc., have all been experimented with at the Mississippi Station, demonstrating that these things will grow, grow vigorously and furnish abundance of forage for domestic animals. At the present time, under the reign of cotton, one rides hour by hour throughout the South and sees nothing of this kind growing. They will grow, however, and when they are grown the farmer is ready for the brood animal, the mare, the cow, the ewe and the sow. I discussed the question publicly and privately with leading Southern people of the advisability of turning much of the labor of the South in this direction so as to diversify labor and take advantage of the natural opportunities offered by Southern conditions. There is a divided sentiment regarding the diversification of this labor; a good many contended that the labor of the South; the colored man, in short, will not and cannot successfully be turned in this direction. Others admitted that this can be successfully done. It can only be done in my opinion, by the intelligent, educated men of the South, taking hold of their labor and teaching how to do it. Along agricultural lines, very few people are quite as intelligent as they should be. A man may be successful in a profession and yet know very little about furnishing feed for the dairy cow, or taking care of her milk, when that stage has been reached. The greatest hope we have is that the experiment stations are educating a class of young men who can take the colored man by the hand and show him how and when to plant these forage crops. Then to teach him how to care for them, the brood mare, the dairy cow and the mutton sheep. The colored man waits upon successfully at our tables, he understands cotton growing and taking care of his mule. I see no reason why he should not be taught, or cannot be taught to milk the dairy cow. The moment the cow has been milked, the turning of her product into high selling butter and cheese is a scientific process; but when once the science of it is thoroughly understood by the teacher, suc-

[CONTINUED ON PAGE 8.]