

# PROGRESSIVE FARMER

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

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

## FARM AFFAIRS.

### STRAW AT HOME AND FOR THE MARKET.

Correspondence of The Progressive Farmer.

Straw has been higher priced this winter in the large Eastern cities than almost any other farm product, selling as high as 80 cents per hundred weight in New York for the best long rye. At such prices the straw crop, instead of being an article to get rid of the best way possible, is bound to figure prominently in the market returns of the farmer in the future. One of the reasons for the relative scarcity of straw has been the consumption of large quantities of it by the strawboard paper mills, which use thousands of tons of it every year. But the straw that pays to raise for market is long rye straw of an unusual length and bright and golden in appearance. This straw is used by private stables, whose owners can afford to pay the price for it. In order to secure such straw it is necessary to raise crops of rye in which the grain itself is first class. Good rye is produced on good straw. Without a good stand of the stalk the grain is not apt to be good. There are some varieties that have a short and weak straw which produces fairly good crops, but it does not pay to raise them when long rye straw is selling so well in the cities. In order to make this by product of the rye crop profitable it must be sorted out and graded with the same care that the hay farmer grades his hay. There is such close discrimination shown by the market men between good and ordinary bedding straw that it pays to do the sorting at home carefully and conscientiously.

But any of the straw crop that fails to grade up to the best in demand can be utilized in profitable ways at home. Cattle eat it, and it helps to make valuable fertilizer, while paper factories will often pay good prices for it by the ton. In order to get the most for the best straw it is quite essential that it should be kept indoors through the winter season until ready for market. Straw stacked and left outdoors through the winter can never cut much figure in the city markets. It becomes broken, rusty, dirty and soft, any one of which is sufficient to condemn it. Housing of the straw should be a practice wherever it is raised for market. Then if there is an overflow, leave the poorest grades out of doors in stacks with at least a canopy or covering over the top. If possible this straw should be taken in as soon as possible, for when left out all winter it absorbs moisture, and consequently it can absorb less liquid manure when used for bedding. A little more attention to the straw crop will not only prove a matter of small economy, but an important item of profit to the owner.

WILLIAM CONWAY.

The students of the A & M College in Raleigh expect to visit Biltmore Farms soon. To make the visit an interesting one, Mr. Vanderbilt has offered \$50 in prizes to be distributed as follows: (1) Fifteen dollars to the best judge of cattle; (2) Ten dollars to second best judge of cattle; (3) Fifteen dollars to best judge of swine; (4) Ten dollars to second best judge of swine. These prizes will be in the form of gold coin or silver cups, as the students may prefer.

## THE ONE GREAT NEED OF FARMERS.

Dr. Nobles, Who Opened the Fight Against Jute Bagging, Writes a Letter That Deserves the Careful Consideration of all Tillers of the Soil.

Correspondence of The Progressive Farmer.

I have thought for sometime I would write you. I was the first man to oppose the bagging trust, several years ago. We saw the need of action then, and we introduced in our Alliance (No. 54) a resolution not to use a pound of the jute bagging for our cotton crop; that we would use cotton cloth or some other material to cover our cotton bales with. We sent our resolutions to our county paper (the Southerner) and to The Progressive Farmer for publication, and in two weeks I saw our resolutions in a Texas paper. They went all over the South, and we all know with what result. We farmers were then partially organized, but we were determined to use our influence. So, many of us used cotton good, that cost us more than the bagging would have cost. But we went in to win.

Now, what I want to say to the farmers, and all who are favorable to us, is this: Let us get together, organize and go to work with a vim, a determination, go to work for a cause, and let us not be afraid to let everybody know it.

Abuse no one for failure to see as we do. Impress upon all farmers the necessity of organizing, or getting together. And then choose out the very best men we have in our ranks to formulate a plan of action. Let men from every county be selected to draft what they think would be the best plan. Give them time to call on their counties for advice, and put their views down in writing. And then appoint a day when they will meet in Raleigh and have all plans read and take the good out of each and form a plan, and then all agree to stick to it, and go to work for it, and stand solidly together.

We can improve our plan as things develop. Have good solid men in each county at the head, and you need not fear evil. We can whip out every trust in the land, if we will so to do; only get together to work.

I am aware that some fellow will say we "can't." I never did like to say "I can't." Say we can and will, and the battle will be ours. It will require work; so it is by everything that is worth having. I for one (with the many) would go into it to fight all trusts, the Standard Oil Trust not excepted. I would use for lights anything but the oil, if I had to resort to lightwood knots for lights. What we want and most need is to fight together, organize and go to work with a determination. Wish no one wrong, help all you can, trust in the righteousness of our cause, and should we find we are in the wrong, or have made a mistake, get it right, for we are not infallible. But stand solid.

I have read S. G. Satterwhite's plan, Jordan plan, and my old Pitt county resolutions, and I find good in all. Let us have a plan that is broad and open for improvements, for we will need improvements as we go along. We must, every one, be determined to succeed and let nothing deter us. All we ask (if we stand together) is hands off, or fair play, only use no combination of money to oust us. If the men we send to legislate for us do not recognize that they are our servants, sent to carry out our wishes, then turn them out, and try the next best man.

Now, Mr. Editor, correct, leave out, or cast into the waste basket all I have written, if you should think it wise. I like your paper and have tried much to get my neighbors to take it. If I could make money as I have in years past, I would take a dozen of your papers and distribute them among my neighbors. But the truth is, we are not able. We have to do all we can to keep going. I am not a Solomon, and have sense enough to know it, but if I could see the farmers thoroughly organized, and to see things as I see them, I think we soon would be the most independent people in the world.

Suppose we were to raise most of the meat we consume on our farms (and we ought to raise all) and all the bread, and with strict attention to our stock by housing them, and raising all the manure we can, we would not only save our meat bill, but would be enabled to cut our fertilizer bill down I will say one half, if not more. Now give us the money spent for meat bought out of the State and the fertili-

zers bought, and would we not be far better off?

Now when we get together and are in working order, I want to propose a plan to the farmers for co-operation without coming in contact with the trust, letting them severely alone. No law compelling us to patronize them, not even necessity.

Respectfully,  
A. B. NOBLES  
Edgecombe Co., N. C.

Somebody is always talking about keeping the boys on the farm. The farm girl, says a writer, is fully as important in the business of the universal as the farm boy who is so much talked about, and we don't know any philosopher who is trying to find a method of keeping the girls on the farm.

### EARLY FRUIT QUESTIONS.

Correspondence of The Progressive Farmer.

It is advisable to get the mulch away from fruit trees and vines as early in spring as possible, but not until the danger from excessive freezing is past. A warm spell in March will sometimes start the sap up, and then if the mulch is removed and the ground worked the roots may be severely damaged by a late cold snap. Fruit growers cannot do better than to remove the mulch early, work the soil as soon as it is possible to do it, and then watch the weather reports. On the first indication of a cold wave put back the mulch at night or give some protection to the early varieties of fruits. In this way one can have an early start with the fruits and sometimes harvest the first crop a week earlier. This means a good deal, for the first picking of any fruit crop, if good, is the most profitable. Some in their desire to reap the benefits of these early high prices harvest their fruits before they are ripe and ship them to market, and in nine cases out of ten lose. There is a difference between an early harvest of ripe fruit and green, half formed fruit picked a week or two too early.

In the matter of spraying it should be remembered that this must be done at the proper time to be of any use. Spraying is one of the most wasteful practices on many farms, simply because the owners do not understand the use of it. We spray for scab early in the season, just before the buds open. Later than this it is of little or no use. This applies to all fruits. If one has reason to believe that there is no trace of scab in the orchard what is the object of spraying? None at all, for the codling worm and similar pests will not be reached by this early work. The time to spray for this pest is after the bloom is over. Neither should the spraying be done while the blossoms are in full bloom. At such a time the spray has a decided tendency to prevent the setting of the fruit, and the orchard may be materially damaged. The blossoming period is the critical time for the orchard, and nothing must be done to blight or interfere with the setting of the fruit. The sensitivity of the blossoms is apparent when we consider how an east wind or a damp week may turn a promising orchard into an unprofitable one by blasting all the blossoms. Another danger that may arise from spraying during the period when the blossoms are in full bloom is that of poisoning honey bees. The bees which suck out the pollen are sure to take out some of the poison, and thereby suffer. All orchardists do not keep bees, but they may injure their neighbor's property and indirectly themselves, because bees in an orchard distinctly help the fruit crop.

S. W. CHAMBERS.

Just at this season of the year this following for decomposing bones may prove of value to some. Pack the bones with wood ashes in an old fashioned hoghead or other wooden vessel and keep the mass well moistened for several months. Or caustic lime could be used in the same way. Where there are large quantities to be treated trenches in the field may be used instead of wooden vessels. Much heat is developed and the bones are decomposed completely. Some farmers report best success from the use of crude caustic potash. Make a strong solution of this, heat until hot in a kettle, then pour over the bones in proportion of one part potash to four parts bone. Turn over occasionally for several weeks, when it is fit for use. Care must be exercised in handling the caustics, for they are liable to cause bad sores and injure clothing.

## THOSE SCIENTIFIC TERMS.

A reader of The Progressive Farmer complains that too many scientific terms are used in farmers' bulletins, reports of experiment stations, etc., etc. For the benefit of this reader and others holding the same views, we give the following explanation of scientific terms used in treating of fertilizers, food, etc. Our correspondent will do well to preserve this copy of the paper or clip this article for his scrap book.

TERMS USED IN DISCUSSING FERTILIZERS.

"Complete" fertilizer is one which contains the three essential fertilizing constituents, i. e., nitrogen, phosphoric acid and potash.

"Nitrogen" in fertilizers is in three distinct forms, viz., as organic matter, as ammonia, and as nitrates. It is the most expensive fertilizing ingredient. "Nitrates" furnish the most readily available forms of nitrogen. The most common are nitrate of soda and nitrate of potash (saltpeter).

"Nitrification" is a process by which the highly available nitrates are formed from the less active nitrogen of organic matter, ammonia, salt, etc. It is due to the action of minute microscopic organisms.

"Phosphoric acid," one of the essential fertilizing ingredients, is derived from materials called phosphates. It does not exist alone, but in combination, most commonly as phosphate of lime in the form of bones, rock phosphate, and phosphatic slag. Phosphoric acid occurs in fertilizers in three forms—soluble, reverted, and insoluble.

"Superphosphate." In natural or untreated phosphate the phosphoric acid is insoluble in water and not readily available to plants. Superphosphate is prepared from these by grinding and treating with sulphuric acid, which makes the phosphoric acid more available to plants. Superphosphates are sometimes called acid phosphates.

"Potash," as a constituent of fertilizers, exists in a number of forms, but chiefly as chlorid or muriate and as sulphate. All forms are freely, if not quite equally available, but it has been found that the chlorides may injuriously affect quality of tobacco, potatoes, and certain other crops. The chief sources of potash are the potash salts from Stassfurt, Germany—kainit, sylvinite, muriate of potash, sulphate of potash, and sulphate of potash and magnesia. Wood ashes and cotton hull ashes are also sources of potash.

TERMS USED IN DISCUSSING FOODS AND FEEDING STUFFS.

"Water" is contained in all foods and feeding stuffs. The amount varies from 8 to 15 pounds per 100 pounds of such dry materials as hay, straw or grain, to 80 pounds in silage and 90 pounds in some roots.

"Dry matter" is the portion remaining after removing or excluding the water.

"Ash" is what is left when the combustible part of a feeding stuff is burned away. It consists chiefly of lime, magnesia, potash, soda, iron, chlorine, and carbonic sulphuric, and phosphoric acid, and is used largely in making bones. Part of the ash constituents of the food is stored up in the animal's body; the rest is voided in the urine and manure.

"Protein" (nitrogenous matter) is the name of a group of substances containing nitrogen. Protein furnishes the materials for the lean flesh, blood, skin, muscles, tendons, nerves, hair, horns, wool, casein of milk, albumen of eggs, etc., and is one of the most important constituents of feeding stuffs.

"Albuminoids" is the name given to one of the most important groups of substances classed together under the general term protein. The albumen (the white) of eggs is a type of albuminoid.

"Carbohydrates." The nitrogen-free extract and fiber are often classed together under the name of carbohydrates. The carbohydrates form the largest part of all vegetable foods. They are either stored up as fat or burned in the body to produce heat and energy. The most common and important carbohydrates are sugar and starch.

"Fiber," sometimes called crude cellulose, is the framework of plants, and is, as a rule, the most indigestible constituent of feeding stuffs. The coarse fodders, such as hay straw, contain a much larger proportion of fiber than the grains, oil cakes, etc.

"Fat," or the materials dissolved from a feeding stuff by ether, is a substance of mixed character, and may include,

besides real fats, wax, the green coloring matter of plants, etc. The fat of food is either stored up in the body as fat or burned to furnish heat and energy.

"Nitrogen free extract" includes starch, sugar, gums, and the like, and forms an important part of all feeding stuffs, but especially of most grains.

### MISCELLANEOUS TERMS.

"Micro-organism" or microscopic organism, is a plant or animal too small to be seen without the aid of a compound microscope.

"Fungus" (plural, Fungi) is a low form of plant life destitute of green coloring matter; molds and mushrooms are familiar examples. Many diseases of plants are due to fungi.

"Bacterium" (plural, Bacteria) is the name applied in common to a number of different or closely related microscopic organisms, all of which consist of single short cylindrical or elliptical cells or two such cells joined end to end and capable of spontaneous movement. Many kinds of bacteria are harmful and cause diseases and other injurious effects, but many are beneficial. Among the latter are those which give flavor to butter and cheese, and those which enable leguminous plants to use the free nitrogen of the air.

"Bacillus" (plural, Bacilli) is a genus or kind of bacterium.

"Sterilized" milk or cream, properly speaking, is that in which all the germs have been destroyed (usually by repeated heating to 2.2 degrees F.—boiling point), but in dairy practice the term is applied to cream or milk which has been heated once to a temperature of about 212 degrees F.

"Pasteurized" milk or cream is that which has been heated to a temperature (about 155 degrees F) which does not kill all the bacteria, but only those which are in a vegetating condition and ready to begin their activity at once.

"Lactation." The formation or secretion of milk. The "period of lactation" as applied to cows means the length of time since calving that they have been giving milk.

Tuberculin is a liquid in which the germs of tuberculous have been grown, but from which all live germs of the disease have been carefully removed. It is administered by hypodermic injection as a test for tuberculosis in all mammals, a rise of temperature after injection indicating the presence of the disease.

At the Michigan Experiment Station, 128 lambs pastured for eight weeks on five acres of rape, showed a gain of 2,890 pounds, or three pounds a week, at a total cost of \$6.

### COMMERCIAL FERTILIZER.

Plants that are grown under natural conditions contain 13 elementary substances, three of which come from the air, nine from the soil and one from both air and soil, remarks a correspondent of the Epitomist.

All, except three of these, do not require replenishing as a rule, but nitrogen, potash and phosphoric acid, of which soils contain but a comparatively small supply and upon which all crop-draw heavily must be added to the soil from time to time. All commercial fertilizers are principally composed of these three elements in different proportions, and the fertilizer depends for its value upon the quantity and purity of these ingredients. If a fertilizer contains salt of ammonia or nitrate of soda—sources of nitrogen—or organic nitrogen; potash, as, for instance, wood ashes or muriate of potash and phosphate of lime, it is a complete manure. Superphosphate is soluble in water and hence can be made immediately available by the plant. The bone phosphate and rock phosphate are insoluble in water. When the plant first begins to grow phosphates is very valuable to it. It hastens maturity of fruits. Among the several recommendations for aiding non-bearing fruit trees to bear, sometimes there can be no more important one than to advise the application of potash. Bone meal will furnish phosphate of lime and nitrogen, and is excellent as a top dressing for grass, especially meadows that are somewhat damp. Wood ashes, if they can be had pure, are among our very best fertilizers. They contain several elements—potash, phosphate and carbonates of lime—that place them very high among the renovators of the soil. Nitrogen can be furnished by the roots

of the legumes, salts of ammonia nitrate of soda, dried blood, cotton seed meal, fish and stable manures. Lime, upon certain soils, is a fertilizer, and in others a mechanical agent for decomposing muck and flocculate clay, that is exceedingly valuable. Whenever the water is hard, as we term it, the soil contains enough lime. The writer has conducted an experiment with lime on a clay soil that produced distinct beneficial results for six years after its application. On a strip 10 yards wide and without accurate measuring the quantity that was applied, the surface was well whitened. We should think that it was applied at the rate of about 30 bushels to the acre. The land was in sod at the time of application, which was made in the fall. In the spring the field was put in corn, and whether in corn, potatoes, wheat or grass, the soil to which the lime was applied showed distinctly for six years. It was always believed that the soil was somewhat sour, and this condition was remedied by the lime. That is one of the valuable uses of lime.

The ten cent long staple cotton sold on Raleigh market this winter was raised from seed of which the variety is unknown but the seed came originally from Memphis, Tenn. Mr. E. S. Biddick grew and sold this crop.

## TOBACCO DEPARTMENT.

### ANOTHER PLAN FOR THE TOBACCO ASSOCIATION.

Correspondence of The Progressive Farmer.

I see in your paper that you ask for the opinion of your readers concerning the Tobacco Growers' Association. I think that all farmers ought to organize on terms fair to all. Do unto others as you have them do unto you.

There is unrest among farmers. They are mad with somebody, but cannot tell who it is; they want to do something, but cannot tell what to do. Nearly every one is waiting to see what is going to be done, but does not feel that it is his place to do as much as anyone else. Everybody complains of trusts and combines. We ought not to complain so much for they help in many things, though in many things are a curse, if allowed to continue in the future as they have been in the past.

I think that I have a plan in view that if adopted will get the most of the farmers to unite. Then they will be in shape to help themselves. My plan, I think, will test all classes, whether they are sincere or not.

But, let me say first that I am not going to condemn capital, for that is what we need. Capital is what the State needs, is what I need, and is what I am trying to get. But I want to get it fair and I want every other person to have a fair chance and I think everybody is like me in that respect, if honest, and I think the honest man can rule.

The tobacco trust people say they want to be honest with the farmer and my plan will test their sincerity. Let us be fair with them. I do not think it wise to drive off of the tobacco market seventy-five or a hundred million of dollars. We want more money in the trade instead of less.

There has been much said about the Jordan plan. From what I can learn from farmers with whom I have talked, I don't think they will organize on this plan. They seem to fear that they will be like the monkey and rat when they had stolen a cake of cheese. When they were trying to divide it in half they fell out about which had the largest piece and agreed to call in Uncle Tom cat to settle the matter. Uncle Tom brought in his balance and said the monkey's piece was too heavy and would slice off a piece and eat it himself; then tried it again and found Mr. Rat's too heavy this time. So he would piece off a piece of his this time, instead of Mr. Monkey's. The upshot was the rat and monkey were not long in finding out where their cheese was going.

I am not accusing Mr. Jordan of not being sincere in what he says. I think he is the farmer's friend, but farmers have been fooled so often that they are suspicious of almost everything that is presented to them. I think my plan will test his sincerity.

My plan is, first, for the State Association to declare in plain words that the purpose of the Association is not to antagonize the capitalist, but to see that capital is fairly treated, the man

(CONTINUED ON PAGE 8)