

The FARMER AND MECHANIC

Established 1871.

RALEIGH, N. C., TUESDAY, OCTOBER 23, 1900.

Vol. XXIV. No. 2.

NOTES OF THE FARM.

By W. F. MASSEY, of A. & M. College.

I have been reading your letters with some interest, and I think I have benefited. I have fifteen or twenty acres of upland with a light gray soil, and the clay open in some places, and in others tight and heavy. The native growth is post and white oak. Wheat will not fill on the tight clay land. It is tough. Would be glad if you can tell me a way to get wheat to fill on this land. I have used manure and wood ashes on these spots with no benefit. Land is in the western part of Davie county." It is hard for me to advise in regard to land I am not familiar with without more definite information. I am inclined to suspect that these "tight" places are places that need drainage. It is not probable that your Davie county land needs potash very much, and manure would incline it more to straw than grain. So far as its needs in the way of fertilizer are concerned I am of the opinion that to perfect the wheat you need more phosphoric acid than anything else. Hence, I would advise you to use acid phosphate liberally on your land. If you farm right and make a good rotation you can make that land bring the maximum crops of wheat by the use of nothing but the acid phosphate. But to do this you must grow clover and peas and abandon the putting of the same crop year after year in the same place. The restoration of vegetable matter in the soil will do as much toward the improvement of the tight class as anything else.

From Surry county: "I have ordered some Hairy Vetch seed, and want to save a few acres to mow in the spring. I do not know anything about the plant, but notice that you recommend it. How much seed per acre, and how to sow it? I shall also sow a lot of rye for spring mowing and will follow both with corn. Would it be better for me to sow Vetch entirely, and leave off the rye? Your advice in the past has benefited me. My wheat crop this year was 417 bushels on 21 acres. My corn will make 30 to 40 bushels per acre on upland and many fields near it will not make over 2 to 5 bushels." I am glad to know that in the efforts I am making to serve the farmers, I have and there strikes one who follows advice and succeeds. In that beautiful valley of the Yadkin, I have often noticed that the wide bottom lands are cultivated year after year in corn, and that the crops are seldom near as large as they should be on land of that character, while nearly all of these lands are capable of a high production of wheat and corn and hay and the feeding of great herds of fine cattle. In fact, it looks as though it was designed by nature for a stockman's paradise. And yet year after year the owners grow corn and sell corn instead of selling at a greater profit what the corn would make along with pea vine hay in the spring of fat cattle. It is most impossible here to get a piece of decent beef, while all that Piedmont country could produce all the beef and the finest of beef at a profit that would put the present farming to shame. And yet, right in your adjoining county of Stokes, when our State veterinarian at a Farmer's Institute asked the farmers how much it would benefit them financially to get rid of ticks and to have the cattle quarantine line moved so that they could ship their cattle north at any time they answered, not much, for they had no cattle to ship. If there is any part of the State where fine beef cattle would pay it is right along the valley of the Yadkin. I am glad therefore that you are getting interested in leguminous crops, and the Hairy Vetch will not only give you the most profitable hay, but the best forage immensely better than the clover which is the best kind of feed, but it will increase the corn crop largely. As yet the seed is too high priced for farmers to use it very largely. We find \$1.00 per bushel here in Raleigh a few days ago, and the seedsmen advised the sowing of a bushel per acre, but I do not think quite so much is needed. I shall sow two bushels on about three acres. The plant seeds so freely that the seed must soon become cheaper. If you allow some of the seed to ripen they will seed the land and the crop will come again next winter without further sowing. There is no danger of its becoming a weed, as it grows only in winter. It will be better for you to sow the whole land with vetch and sow some rye with it, but for the best help the rye will give in feeding the cattle, which is inclined to get hot and tumble about if sown alone. I am waiting now for the land to get soft enough to plow and will sow as early as possible in October. I am of the opinion that it would have been better to have sown late in September had the drought permitted it.

From Iredell county: "Will it be safe to feed threshed barley to horses with the remaining broken heads and chaff in any way. I have been told that it is dangerous? Will it pay to raise barley for 30 bushels per acre with ordinary seasons?" I should be afraid to feed barley with broken heads to horses, either whole or crushed. It may pay to grow barley as a substitute for oats if you sown threshed barley, but there is no grain to take the place of Indian corn in American agriculture. But any far-

mer in Iredell county ought to be ashamed to say 20 bushels of corn per acre, when any sort of good farming on Iredell land ought to make it bring 50 to 75 bushels per acre. Farmed in an improving rotation you should not only get a great deal more than 20 bushels of corn per acre, but more than 30 bushels of barley or oats. I know land which is naturally no better if as good as Iredell county, which makes 75 bushels of winter oats per acre and the owner got two tons of cow pea hay from the same land after the oats were off. And this was in western North Carolina too.

A merchant writes from Bladen county: "Our farmers are asking what kind of fertilizers are best for oats. They have been using cotton seed, but the seed are now so high they prefer using some other fertilizer. Would like some information on this subject. We are cutting our peavines. Kindly let us know if it is best to plow the land as soon as we get the vines off?" It is the same old inquiry: "What fertilizer to use." Our farmers have gotten into such a habit of using fertilizer for every crop sown or planted that this inquiry is the burden of most of the letters we get from them. If they had been feeding stock and growing peas and had put their eggs on a manured pea stubble, there would be no need of fertilizer on the oats or wheat following the corn. If the oats are sown after a pea crop has been cut from the land, on which acid phosphate and manure has been used, there would be no need for fertilizers on the oats, and the crop of peas would have been greatly heavier. But there are few of your farmers who have faith enough in their land to fertilize peas, and hence they are in need of fertilizers for their oats. They do not feed one-tenth the cattle they should and could feed with profit, hence, the land is not manured as it should be. There is little profit in the direct use of fertilizers on oats or of complete fertilizers on corn either. But in regard to the inquiry as to the proper fertilizer, I am glad that cotton seed is too high to use, for it never should be used till after the oil is extracted. Cotton seed meal is a valuable source of nitrogen and the oat crops needs nitrogen especially. But it could be better furnished by peas or stable manure. But in the absence of these I would advise a mixture of 1,200 pounds of acid phosphate, 700 pounds of cotton seed meal or fish scraps, which can be had in New Bern or Wilmington, and 100 pounds of muriate of potash to make a ton. Use 300 pounds per acre. In regard to plowing the pea stubble after cutting the hay we would say plow it if you intend to sow a winter crop on it. If not, let it stand till spring. It will be better to plow and sow a winter crop as green vegetation prevents the loss of nitrogen in the winter rains. We have always here more rainy than freezing weather and land left bare in winter will lose fertility faster than in the summer cropping. No land in this climate should be left without a green cover in winter. We are about to sow Hairy Vetch on our pea stubble to keep up the improvement we have been trying to get from the peas, and we expect to get a good crop of hay in the spring in time to put the land in other crops.

From Guilford county: "How much and what per cent. fertilizers will be practical to use for wheat on land that made 20 bushels of wheat per acre the past season. Land was sown in peas after the wheat was cut. Also what to use for wheat on corn ground which had a light dressing of manure, and had peas sown among it at last working. Corn was cut and bound with machine and shocked in the field and land prepared with disc harrow. What is the best distance to set raspberries and blackberries, and should they be cultivated or mulched with sawdust? I than you for the good your advice has done me in the past." Here is evidently a man who is getting out of the ruts, for he cuts his corn with the binder and sows peas. But do not assume that because you grew 20 bushels of wheat per acre this year that you can keep on growing wheat on the same land every year. It is all right to grow one crop in this way after you have put the land in peas, and if you had given the peas a good dressing of acid phosphate at all on not need to put any fertilizer at all on the wheat. As it is, I would use both pieces of land only acid phosphate and would use it at a rate of 30 pounds per acre. After the peas, I do not think you need on your land anything else. But hereafter fertilize the peas and they will do the rest.

Cotton Growers' Convention.

The annual session of the Cotton Growers' convention will be held in the Auditorium of the Agricultural Department, in Raleigh, on Wednesday evening, October 24th, at 7:30 o'clock, to discuss any and all matters of interest to the cotton growers of this State. A full attendance is earnestly desired.

JOHN S. CUNNINGHAM, President.

Cunningham, N. C., Oct. 20.

When flatterer meets flatterer his satirical majesty sits down and rests.

THREE DOLLARS FOR \$1.20

Farmer and Mechanic—one year,	\$1.00
North Carolinian—one year,	1.00
Farm and Home—one year,	.50
Homemade Contrivances,	.50
Total,	\$3.00



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650 PAGES Saving Devices. **750 CUTS**

Skill in the construction and use of simple labor-saving devices is of vast importance, and any aid to the development of this manual dexterity is always very welcome. The volume here presented abounds in valuable hints and suggestions for the easy and rapid construction of a large number of homemade contrivances within the reach of all. It is an everyday handbook—especially to both farmers and outsiders—and contains the best ideas gathered from a score of practical men in all departments. The convenience and appliances described in this work secure great comforts to both man and beast. It is certain that every progressive farmer, gardener, householder—in fact, every one interested in labor-saving contrivances—will find very much of interest and value in this volume. For convenience in reference, the various contrivances and labor-saving devices have been classified under three general headings, namely, Farm Conveniences, Farm Appliances, and Farm Gears and Belts, about 500 of which are described in the appended and abridged accompanying 650 pages. Here, we include for the first time in collected together, a mass of valuable ideas on fences, gates and beltings, and there is also a chapter on fence law and other country beltings and matters.

ILLUSTRATIONS. In *Homemade Contrivances*, there are some 750 each year. This new size and method of illustration is an evidence of the practicality of the work. The illustrations are plainly drawn and neatly printed.

The book is substantially bound in illuminated paper covers, the size being approximately 1-1/2 by 1-1/2 inches. The regular price is 50 cents, postpaid.

ANY PERSON who becomes a subscriber to the Farmer and Mechanic can get the above three fine premiums FREE by sending in his subscription at once to the Farmer and Mechanic upon the following coupon.

BIG BARGAIN SUBSCRIPTION COUPON

Farmer and Mechanic, Raleigh, N. C.

Enclosed please find \$1.20 Dollar for the FARMER AND MECHANIC one year. The consideration of this order is that I am to receive FREE the North Carolinian one year, also Farm and Home one year, and Homemade Contrivances.

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Fill Blank and mail to Farmer and Mechanic, with \$1.20

Farmers Should Hold Cotton

To the Editor: I wish to write a few lines, which I hope you will publish in your valued paper, hoping that you will ask your correspondents to please copy. I write these few lines in the interest of the cotton growers of the South. I would like to call the attention of all citizens of this section to the fact that I think a great mistake is made by rushing your cotton so rapidly upon the market. There is a great effort now upon the part of the cotton buyers to reduce the price of your cotton. You will have to meet this combination with united and determined effort. I know there are a great many people who have to sell their cotton immediately, but for such persons as are able to hold their cotton a few months I think there will be better prices in store. I can't see any good reason to think there will be any danger of the market getting lower, unless it might be for a few days on account of the sudden rush upon the market which will not last long. The cotton crop is very short and the cotton growers need all they can obtain. I think they should at least be slow and not rush their cotton upon the market so fast. The cotton is nearly all gathered in some sections, and I think the prospects are good for the price of cotton to rally in a few weeks more. I call your attention to the fact that there must be a complete

organization throughout the cotton belt concerning this matter, and I trust your good judgment will cause you to consider your best interests, and remember that this is the surest way to proceed under the present circumstances.

I have noticed that the price of cotton is always lower about the time that the bills for fertilizers become due, and the cause of this is accounted for by the large rush of cotton upon the market just about this time. I think the farmers always make a very grave mistake by giving notes payable so early in the fall for fertilizers; they should endeavor to get an extension of time at least till November 15th, for their fertilizer bills. I hope these who feel interested in this matter will correspond with the leading men of their cotton States, if you think it will be to your interests to do so. I surely think the idea is good and ask your hearty co-operation, believing it will be to your interests, and worthy of your best consideration and attention.

W. J. WHITE,
Raleigh, N. C., Oct. 17, 1900.

"Flyer" Wrecked and Two Men Killed

(By the Associated Press.)
Pittsburg, Oct. 20.—The Pittsburg and Lake Erie flyer due at 8:20 p. m., was partially wrecked at Main Street, south side just after crossing the bridge, resulting in the instant killing of two men and badly injuring another.

BEAR COTTON MARKET IS NOT JUSTIFIABLE

Commissioners of Agriculture.

(Atlanta Journal.)

The Commissioners of Agriculture of the cotton growing states do not believe the present bearish condition of the cotton market is justifiable. Several days ago Commissioner Stevens, of Georgia, gave The Journal an interview in which he declared that the price of cotton should be going higher instead of lower, as prevailing condition showed the crop will not exceed 9,000,000 bales.

The following answers have been received in reply to telegraphic inquiries sent by The Journal to the commissioners throughout the South:
MONTGOMERY, Ala., Oct. 19.—Sixty-five per cent of crop for Alabama; total crop cannot exceed 9,000,000 bales.

R. P. POOLE, Commissioner of Agriculture for Alabama.

RICHMOND, Va., Oct. 19.—Cotton crop of this State about 14,000 bales.
G. W. KOENER, Commissioner of Agriculture for Virginia.

LITTLE ROCK, Ark., Oct. 19.—Indications verify Raleigh estimate of 9,264,366; for Arkansas cotton too low.

FRANK HILL, Commissioner of Agriculture for Arkansas.

TALLAHASSEE, Fla., Oct. 19.—Crop lost heavily past three weeks; will not reach 50,000 bales.

L. B. WOMBWELL, Commissioner of Agriculture for Florida.

CENTREVILLE, Miss., Oct. 19.—I agree with President Stevens relative to bear move. Crop in my State very little improved; maximum yield for South 5,500,000.

JOHN A. REDHEAD, Commissioner of Agriculture for Mississippi.

RALEIGH, N. C., Oct. 19.—State returns slightly above government October report. General conditions do not warrant bear movement; market obliged to rally.

S. L. PATTERSON, Commissioner of Agriculture of North Carolina.

To the Atlanta Journal: In reply to your inquiry regarding the cotton crop I have no reason to change my mind from the figures given your reporter a few days ago. I have intelligently sought information regarding the present crop from all the cotton States, and all indications lead me to believe that the present crop will not exceed 9,000,000 bales. In many of the States there will be no top crop at all; in a few instances there will be a small top crop, but not enough to be counted in the present calculation of the crop, therefore early or late frost will not affect these figures at all. There is no reason known to me why there should be a decline in the price of the staple, except that it is brought about by speculation.

O. B. STEVENS, Commissioner of Agriculture of Georgia.

When and How.

We have been told by very good authority that there is a time for everything, and we think it equally true that there is a correct way of doing everything. It sometimes makes a vast difference whether a thing is done at the proper time. For instance, a delay of a very few days in the cultivation of a crop may result in an inferior product, while if it had been done at the proper time and in the proper manner the outcome would have been a crop satisfactory in every respect. The best time for destroying weeds is before they have become well rooted, and have full possession of the soil. Indeed, it is well that the ground be stirred before they root at all, and the result will be a better crop. So also, the destruction of injurious insects should be attended to as soon as they appear. It also makes a great difference sometimes about the time of applying fertilizers to the soil, especially highly concentrated ones. Some crops are more liable to be injured by the fertilizer coming in immediate contact with their roots, and with such, great care should be exercised.

In the case of potash, especially in the form of kainit, it is advisable to make the application some weeks before the crop is to be planted in order that the elements may be well incorporated with the soil and not come in contact with the seed or tender roots of the plants. Concentrated manure should never be applied at planting time lest the germination be injured or perhaps wholly destroyed. There is but little danger of loss in either phosphoric acid or potash by applying it sometimes before the crop is to be planted, for they will remain in the soil and be ready to be assimilated by the plants. Both potash and bone may be applied with advantage the fall before an early crop is to be planted. On the other hand, we would not apply nitrate of soda any length of time before the plants require it, as it is soluble and much of it might be lost by leaching.

In case of strawberries, we have had the very best results and increased the crop by actual test 25 to 35 per cent by applying it soon after the plants commence growing in the spring, six weeks or two months before the crop is to be removed.

We have had excellent results on the hay crop by applying the nitrate soon after the grass begins to grow. Two hundred pounds per acre is sufficient for strawberries or grass. With asparagus the case is different, and we would make the application when we stopped cutting for the season and worked the bed. Being applied at this time seems to be most beneficial, as it seems to strengthen the crowns and puts them in good condition for the next year's crop.

There is need of exercising much good judgment in all these things, and no ironclad rules can be laid down, for which would cover all conditions, for what will do for one locality or crop might not be the right thing for another. It is necessary for every one who would be a progressive agriculturist to observe what others do, and try the methods which seem better than those which he is practicing. Let him do a little experimenting to find out what is best. It will be well to notice the experiments of others and make use of their experience. Experience is a good teacher, but sometimes expensive; therefore, when one can profit by the experience of another, he should avail himself of the opportunity.

The writer was much interested the

latter part of last April in a visit to the Experimental Farm at Southern Pines, N. C. Here experiments were carried out upon twenty-nine plots to each separate crop. The object, I believe, is to show the best form of the mineral fertilizers and the proper quantity to be employed, and also to show the effect of green manure and lime upon different crops. Both vegetables and fruits of different varieties are included in these tests. In order to find out the proper amount of each element which may be employed to advantage upon the various crops there are plots which are left unfertilized to show the natural productiveness of the soil, then various combinations in different amounts and different forms to show just what amount and kind of fertilizer will produce the largest and best quality of yield.

To show the best form of potash for the different crops upon one plot, sulphate is used; upon another muriate, and another kainit. I noticed that upon some plots were green manure, (cow peas), had been used; there had been apparently little benefit, which was a surprise, as in all of our experience with green manure (crimson clover), in New Jersey very great benefit has been derived. Possibly the difference in soil, climate, material used, or time of plowing under might account for the difference in results. Very great benefit, however, was noticed from the use of the mineral manures upon the crops. For instance, upon some crops sulphate of potash produces better results than muriate, and on others muriate is better than kainit. In this connection it might be well to note that muriate and sulphate each contain about 50 per cent actual potash, and kainit but 12.4 per cent. It is therefore, sometimes cheaper to purchase muriate in preference to kainit as a source of potash on account of the saving in freight. There are cases when it might be preferable to use kainit. For instance, where a crop is to be planted on soil infested with cut worms, as kainit is an excellent insecticide. But kainit is injurious to some crops like tobacco, for example, on account of the chlorine which it contains.

We are confident that the experiments (now in their infancy), being carried on at Southern Pines, cannot but result in great benefit to all agriculturists, for the experiments there carried on will in time show conclusively the great advantages derived from the use of artificial fertilizers in producing larger and better crops; and they will also demonstrate just what amount of each form of plant food is best. The work there is practical, not theoretical, and will give to this farm a position of authority in the agricultural world in the near future.

BRYAN TYSON,
Carthage, N. C.

The Mission Club

The Mission Club is an organization in Raleigh, the membership is composed of ladies from the different churches of the city, and the object of which is to study and plan for missionary work. Miss Fannie Heck is president, Mrs. Primrose and Mrs. Pittenger are vice-presidents, and Miss Ruth Worth is treasurer.

At a meeting held recently it was announced that the Baptist Book Store had offered a prize of two volumes, giving a complete account of the Ecumenical Conference at New York. The prize is to be given to the lady writing the best poem on a missionary topic. The contest has aroused considerable interest, but it has not yet been announced by whom the decision is to be made.