

FERTILIZING THE CROP.

The primary object in using fertilizer is to produce a larger yield of the crop that is to be immediately grown, or is already growing on the land to which the fertilizer is to be applied. As a rule, it contains from ten to sixteen per cent of more or less promptly available plant food. In other words, a commercial fertilizer contains in every hundred pounds weight from ten to sixteen pounds of available phosphoric acid, either alone, or that amount of phosphoric acid and potash combined, or of these two and nitrogen combined, making in the latter case, what is called a "complete" fertilizer. Now, this 10 to 16 pounds in each 100 pounds of the fertilizer is supposed to be, and should be, practically soluble and available once, or within a week or two, for the use of the crop, says Virginia-Carolina Fertilizer Almanac.

The remaining portion of the fertilizer, or the 84 to 90 pounds in each 100 pounds, is a mixture of insoluble phosphate and sulphate of lime, some sand, water, gaseous matter and other things that are necessarily incident to the manufacture, and cannot be economically removed. They are of very little immediate value to either the crop or the soil.

So when we apply a high-grade fertilizer to the soil the object is to supply the plants with soluble plant food and increase the yield of the cotton, grain, grass, or whatever the crop may be. Incidentally, however, this fertilizer does help the land, because it induces a larger growth of stalk, root and water, that plants—or those parts that will be returned to, and become part of the soil. A dose of this fertilizer, for instance, not only increases the yield of seed cotton, but also the size of the stalks, the foliage, bolls and other parts of the plant. It also increases the amount of vegetable matter in the soil. The principal way to improve the soil is by the use of stable manure, renovating crops, rotation of crops, etc., in a more direct manner. It would seem manifest, then, if we wish to increase the yield of corn, cotton, wheat, oats, grass, etc., that the fertilizer should contain the three "elements" of plant food in the proportions that are best suited to the particular crop. This is particularly true if the purpose is to use liberal amounts of fertilizer per acre. In such cases the deficient supply in the natural soil, of any one or more of the three "valuable" elements (phosphoric acid, nitrogen and potash) need not be specially considered.

According to carefully conducted field experiments, conducted at many of the experiment stations, it has been found that cotton requires a fertilizer that contains about one part each of nitrogen and potash and 2 to 3 parts of available phosphoric acid. This demand would be met by a fertilizer containing 10 per cent available phosphoric acid, 3 per cent nitrogen and 3 per cent of potash; or, as ordinarily expressed, a 10-3-3 fertilizer. One analyzing 9-2.70-1.70; or 8-2.40-2.40; or 7-2.10-2.10, etc., would answer just as well, provided these lower grades be applied in heavier quantities.

So it has been found that corn, sugar cane, sorghum, grasses and other crops belonging to the grass family respond best to a fertilizer that shall contain 10 parts of phosphoric acid, 5 parts of nitrogen and 5 parts of potash—or a 10-5-5 fertilizer. The following formulas are in precisely the same proportions, only they are of lower grade, and would give practically the same results only when a correspondingly larger application shall be made per acre—viz., 3-4.50-1.50; or 2-4.00-1.50; or 7-3.50-1.40, and so on. Of course, these lower grades can be sold at lower prices than the high grades; but, as a rule, the farmer will find it more economical to buy the high grades, both on account of their cheaper price per "unit" and also the saving of freight the latter being precisely the same, per ton, for both high and low grades.

APPLYING FERTILIZER WHEN PLANTING.

While it is certainly true, in our experience, that the greater part of the fertilizer should be applied about two weeks before the crop is to be planted, and mixed in the soil of the bedding furrow and bedded on, there are circumstances that would justify a farmer in making one or more intercultural applications, including one at the actual date of planting. The following are such circumstances:

- (1) When a farmer has not been able to secure the whole amount of his fertilizers before planting time.
- (2) When he concludes, after his crop has been planted and is growing, that he did not buy and apply as much as he should have done before planting.
- (3) When the yellowish green color and want of vigor in the appearance of the plants indicate that more nitrogen is needed by the crop.

We believe it may be safely accepted as a general rule that a small portion of Virginia-Carolina Fertilizer should be applied with, or near the seed, at the time of planting. The effect of this small application is to supply the young plants with available food during the first stage of their growth, inducing prompt and vigorous development. For this purpose 40 to 50 pounds per acre may be applied of the same fertilizer that had been bedded on two weeks before planting.

A second application of high-grade fertilizers may be made at the second or third plowing of cotton, or at six or eight inches height of the plants up to 18 inches, or the middle to last of May, and the middle to last of June.

The intercultural applications may be made in the sowing furrow, or the fertilizer may be strewn along in the middles ahead of the plow or cultivator. There is no need to fear that the plants will not get the benefit of a high-grade fertilizer if put anywhere, or between the rows. June 26th is the latest date at which the writer has ever applied fertilizer in this way to either corn or cotton, although there is little reason to doubt that even later applications would benefit the crop; but probably not enough to pay the cost of the fertilizer.

Joe Fry's Case.

Joe Fry's case will be tried at this term of court for the theft of watermelons from Mr. F. Hollinger of this township about two years ago. At the beginning Fry skipped bond of \$50, furnished by Deputy Sheriff J. P. Burns, but was afterwards arrested by Deputy Burns near Hickory.

Fry then released himself by putting up cash bond of \$75.

James Hartsoe's Case Disposed of.

James Hartsoe was placed on trial for an assault on Will Marshall several months ago with a pocket knife.

Hartsoe was at first furnished bond in the sum of \$100 furnished by Mr. A. R. Flannagin, of Hickory, for his appearance at the court of justice.

Hartsoe disappeared but later was rearrested by Deputy Sheriff Burns in Rutherfordton county where he was employed in a blacksmith shop and was brought back and placed in jail at Newton. He was fined \$31 and cost.

A Good Result.

Under the operation of the new Pure Food Laws, baking powders now generally bear on the labels a statement of the ingredients. This is of utmost importance because of the harmful ingredients used in many cases.

Royal Baking Powder is known to be the only baking powder made of Royal Grape Cream of Tartar, and this no doubt explains its greatly increased sale here.

Careful housekeepers are taking advantage of the protection which the Laws afford, and are examining all the reading matter on the back of the label before adopting any brand for use in the home.

When in place of the words Cream of Tartar the words "alum" "aluminum" or "phosphate of lime" appear among the ingredients, they heed the warning and avoid baking powders containing these substitutes.

Located in Springfield, Mo.

Robert Hilton, who assaulted his wife with a shot gun on last Thanksgiving day, and had fled from justice was brought back by Deputy Sheriff Burns and placed in jail at Newton to be tried at this term of court. Deputy Sheriff Burns being Hilton's bondsman in the sum of \$100 was for two reasons desperately on the trail of Hilton. First as a sworn duty and secondly as a self protection financially.

The action of Hilton appears to have been of a very thoughtless nature.

On the 21st of June Hilton purchased a railroad ticket straight through from Hickory to Springfield, Mo., apparently needless of the fact that he was being shadowed by the police of Hickory, consequently the chase was easy.

Hilton had secured a position with the Springfield Furniture Co., of Springfield, Mo., and had been at work three days when arrested there.

Just what disposal of the case is yet unknown, but in all probability will be decided some time this week.

Notice.

All persons wishing to make settlement with the estate of Thomas W. Setzer, deceased, will please present same and make settlement with me within twelve months from date

C. A. LITTLE, Adm. Gamewell, N. C., July 11, 1907.

Mrs. Jas. B. Beard and party have returned from their Northern trip, first taking in the Old Soldiers' Reunion at Richmond; then to the Jamestown Exposition, from there going up to Canada where they spent about ten days taking in the sights.

Everybody Invited

To the Annual Picnic and Old Soldiers Reunion at Stanley N. C. Thursday, July 18th, 1907. There will be an address by Gov. R. B. Glenn, Horseback Tournament, B. A. Concert, and Baseball Stanley vs. Gastonia. FREE dinner to the Old Soldiers and low rates over S. A. L. Railway. "Something doing all day" and a good time for everybody. Every body come.

A Call for Money.

It will be necessary to have the money to pay for the Confederate monument in the bank by the first of August. I therefore urge upon every subscriber to this fund to hand or send me the amount he has promised sometime during the month of July.

I will be in Newton next Monday and Tuesday (court week) and will have the list with me, prepared to receive the money and give credit. The amount pledged is still about \$220 short of that needed to pay for the monument and I make this last appeal to all persons who have not made subscriptions to do so without delay. Cash donations of any amount will be thankfully received.

Respectfully,
Geo. W. Rabb.

Examination for Admission to the A. & M. College.

On Thursday, July 11th, County Superintendent Mebane will conduct examinations for admission to the Agriculture & Mechanical College at Raleigh. Young men who expect to enter A. & M. College in September should by all means take the admission examinations before going to Raleigh. An examination in the home county enables applicants to determine whether or not they are prepared for College without the expense of a trip to Raleigh, and gives those who pass advantages in securing room in the College dormitories. The College offers 120 scholarships to bright needy boys desiring industrial education.

Catawba County Annual Farmers Institutes, Newton Wednesday July 31st, Hickory, Thursday, August 22nd 1907.

The Annual Farmers Institute for Catawba County will be held at Newton, Wednesday, July 31st Hickory, Thursday, August 22nd 1907. There will be two or three speakers present from the State Department of Agriculture in addition to the local speakers. These Institutes are for a free and informal discussion of every-day farm problems and no farmer can attend and take part in these discussions without receiving more than enough benefit to pay for the time spent. No attempt will be made at this meeting to lay last rules by which any man would run his farm, but improved farming methods will be discussed and the reasons why these methods are better than many of those now practiced will be given. We are assured that no speaker will recommend anything he has not himself done and that dozens of farmers in this part of the State are not also doing at this time. Don't forget the date of this meeting, Newton, July 31st Hickory, August 22, 1907, and see that your neighbor knows of it and attend.

C. T. Morrison has bought a half interest in the Flower's Fire Escape Co.

The company is now owned by Dr. H. C. Moore and C. T. Morrison.

Don't knock. Help yourself along by becoming popular, and push your friend with you. It's very easy. Be a good fellow and soon you'll have a procession of followers. No man ever helped himself knocking other people down in character and business.

JAMESTOWN EXPOSITION

Norfolk, Va., April 26th-Nov 30th, 1907.

Southern Railway announces extremely low rates to Norfolk, Va., and return on account of the above occasion. The following round trip rates will apply from Hickory, N. C.

Season-Tickets	\$17.55
Sixty Day Tickets	14.65
Fifteen Day Tickets	13.05
Coach Excursion Tickets	7.50

Coach Excursion Tickets will be sold on each Tuesday, with limit seven days from date of sale, will be stamped "Not Good in Pullman or Parlor cars." Other tickets will be sold daily April 19th to Nov. 30th, inclusive.

The Southern Railway will afford excellent passenger service to and from Norfolk on account of this occasion.

For further information, and Pullman reservations address any Agent Southern Railway or Write

W. H. Taylor, G. P. A.,
Washington, D. C.
R. L. Vernon, T. P. A.,
Charlotte, N. C.

NOTICE! NOTICE!

A special meeting of the share holders of the First National Bank, Hickory, N. C. is called to meet at their office Thursday July 18, 1907 at 3:00 o'clock for the purpose of voting on the question of increasing our Capital Stock from \$75,000 to \$200,000. Also to amend our articles of association and the transaction of such other business as may be brought before it.

K. C. Menzies,
Cashier.

The North Carolina State Normal & Industrial College

Regular Courses leading to degrees of Bachelor of Pedagogy Bachelor of Arts. Bachelor of Science, and a new course leading to the degrees of Bachelors of Music.

BOARD, laundry, tuition, and fees for use of text books, etc., \$170 a year. For free-tuition students, \$125.

THE NORMAL DEPARTMENT gives thorough instruction in the subjects taught in the schools and colleges, and special pedagogical training for the profession of teaching. Teachers and graduates of other colleges are offered a one-year special course in Pedagogy and allied subjects.

THE COMMERCIAL DEPARTMENT offers practical instruction in stenography, typewriting book keeping and other business subjects.

The Department of Manual Arts and Domestic Science provide instruction in Manual Training and in such subjects as relate directly to the home and family.

The Music Department in addition to the degree course, offers a certificate course in vocal and instrumental music.

To secure board in the dormitories, all free tuition applications should be made before July 15th The fall term opens September 18 1907. For catalogue and other information, address,

J. I. FOUST, President,
GREENSBORO N. C.

The effect of malaria lasts a long time. You catch cold easily or become run-down because of the after effects of malaria. Strengthen yourself with **Scott's Emulsion**. It builds new blood and tones up your nervous system. ALL DRUGGISTS: 50c. AND \$1.00.

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Nature has made ample provision for restoring vigor and vitality to humanity, and the public, as well as doctors, resort to Natural Remedies, when all others have failed.

Are you troubled with **Dyspepsia, Nervousness, Malaria, Kidney or Bladder Trouble, Chronic Diarrhoea or Dysentery**, and above all, that dreadful disease **Scrofula**, which has almost baffled human skill, or **Diseases peculiar to Females?**

Piedmont-Bedford Concentrated Iron & Alum Water

Is Nature's Remedy for Nature's Ills. Yes, when you consider that disease comes from impoverished or run down conditions of the system, this Natural Mineral Water furnishes the system what it needs.

The analysis of this Water, shown on the bottle, tells you what **Nature thinks you should take when sick**, and the doctor who reads it will agree.

Do you think the grouping together in this Water of 17 different minerals, which are recognized by medical writers as **most powerful blood tonics**, could have been accidental? Reason answers, NO!

An 18-oz bottle of Piedmont-Bedford Concentrated Iron and Alum water contains all the minerals of 25 gallons of the average natural water—Then why buy a barrel of water when you can get a bottle of minerals at the trivial cost of one dollar. The dose is a teaspoonful in a glass of your own spring water.

How this Water acts upon the system is not clearly known. It is judged mainly by its works. It has cured all the diseases enumerated above, and many more, evidently through its action as a powerful **BLOOD TONIC**.

We have many valuable certificates, which we will be glad to mail, if you are interested.

J. M. ECHOLS CO., Lynchburg, Va.
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