THE PROGRESSIVE FARMER.

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

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AGRICULTURE

Cotton Fertilizing.

Editor of The Progressive Farmer:

Too many planters have to fertilize cotton with such materials as they can get, especially if well enmeshed in the books of the local dealer. However, it seems that the interests of the dealer are really in the line of a good crop, and consequently the quality of the fertilizer they deal out to their following deserves a careful examination. A great many fertilizers are compounded to suit the materials most convenient, and with but little regard to the actual needs of the crops for which same is designed. This fertilizer formula problem is far from being an insuperable one, but it does require a little study.

For example, an average cotton crop of 300 pounds of lint per acre, produces from the soil a great deal more than this 300 pounds lint; there are grown also some 650 pounds of seed, 1,000 pounds of bolls and leaves, and about 900 pounds of stems and roots. Now, fertilizers is used by all these products quite as much as by the lint, and to make the one, the other must also be made. Consequently, in figuring out what the crop needs in the line of plant food, we must take all these more or less useless products into consideration.

For a crop such as is outlined above, taking the whole plant growth into consideration, the actual plant food used amounts to 47 pounds of nitrogen, 40 pounds of potash and 12 pounds of phosphoric acid. A great deal of this nitrogen may and does come from the growth of cowpeas or some plant of the same class. These plants have the power of taking the inert nitrogen from the air, and converting it into such forms that it is useful as food for plants. Perhaps half the nitrogen needed by the cotton crop is obtained in this manner, at least it should be, and we must consider it done to figure on economical manuring. Also, the phosphoric acid is hard to keep in available form in the soil, and the fertilizer application of this ingredient should be at least doubled.

From this point of view, a good cotton fertilizer should be such as to give to the crop per acre, about 25 pounds of nitrogen, 40 pounds of potash, and 25 pounds of available phosphoric acid. It is impossible to expect the crop to reach and assimilate all of the fertilizer applied, in fact, not much more than half can be actually realized, and this too under the most favorable conditions. This is another point for thoughtful consideration.

The plant food for the crop as outlined contains, taken by itself, some 28 per cent nitrogen, 44 per cent potash, and 28 per cent phosphoric acid. Let us compare this with the manure of the farm, which is of course not made from cotton, but rather from the grains and grasses. Such manure contains per ton about 10 pounds each of nitrogen and potash, and 5 pounds of phosphoric acid; that is, considering the plant food by itself, some 40 per cent each of nitrogen and potash, and 20 per cent phosphoric acid, and very little of this latter available at that. Cotton is a special crop, and it is quite evident that ordinary farmyard manure is not a well balanced fertilizer for same. It should be fortified by mixing with it, or using with it, both the German potash salts and acid phosphate. With this illustration as a guide, it is an easy matter for a planter to figure out the proportions of the plant food ingredients in the fertilizers he is asked to buy, and act accordingly.

R. GARWOOD.

A Batch of Notes from Our Washington Correspondent.

Editor of The Progressive Farmer:

The Committee on Agriculture of the House has been asked to secure legislation which will give the Secretary of Agriculture authority, after an inspection of live stock, to issue a certificate to the shipper which will permit of his transportation from one State to another and through States, without further inspection by State authorities. It was explained that by a recent decision of the Supreme Court, cattle may be stopped at any State line, thus affording a serious interference to inter-State commerce in cattle.

* * *

Secretary Wilson appeared before the House Committee on Agriculture December 10th and explained the urgent necessity of an immediate appropriation to enable his Department to stamp out the foot and mouth disease now prevalent in New England. He stated that it had been found necessary to kill all infected cattle and he had ordered their slaughter. He estimated that it would require about $700,000 to kill the disease, arrangements having been made with the State authorities to pay seventy per cent of the value of the cattle killed. Congressmen have become thoroughly alarmed over the inroads of the disease and the possibility of its spread to disastrous proportions and it is believed that an appropriation of a million dollars will be placed at the disposal of Secretary Wilson. Dr. Salmon, chief of the Bureau of Animal Industry is now in Boston, directing the organization of a force to cope with the trouble.

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According to some experiments in Belgium noted by the Department of Agriculture, tests were made in the use of nitrate of soda, superphosphate and sulphate of potash, for growing 16 of the more common garden vegetables. In each experiment, 1 plat was used as a control, 1 received all three fertilizers combined, and on 3 plats one of the elements of a complete fertilizer was omitted. The plats were duplicated in another series, except that like amounts of barnyard manure were used on each plat in connection with the commercial fertilizers. The results obtained showed the best yields when a complete commercial fertilizer was used with barnyard manure. Where the barnyard manure was used alone, not nearly so good results were obtained, but they were about equal to the yields secured when commercial fertilizers were used alone. Both exceeded considerably the yield on the control plat. It is concluded that in order to obtain the largest yield of vegetables, chemical fertilizers should be employed simultaneously with barnyard manure.

GUY E. MITCHELL.

Washington, D. C., Dec. 20, 1902.

Tobacco in Martin.

Hon. Harry W. Stubbs, of Martin County, who is here as a member of the committee to examine books and vouchers in the treasury and auditor's office, says the people of his county are unusually prosperous. There are two tobacco markets in the county—Robersonville and Williamston—each of which will sell as much as 3,000,000 pounds of leaf this year. The former was established three years ago and the latter is now in its first season. Mr. Stubbs estimates that between six and seven thousand dollars have been paid out daily since the new crop sales began to the farmers of Martin County.—Raleigh Post.

Cowpea Hay as a Beef Fattener.

Editor of The Progressive Farmer:

An experiment in feeding three lots of steers was made recently under the auspices of the Missouri State Board of Agriculture on different sorts of coarse fodder with corn. Timothy hay, corn fodder, clover hay and cow-pea hay were used in about equal quantities. The average gain in weight per day with each feed was—

Timothy hay.....	1.69 lbs.
Corn fodder.....	1.94 lbs.
Clover hay.....	1.94 lbs.
Cow-pea hay.....	2.64 lbs.

The grain required for each pound of gain in this test was—

With Timothy hay.....	11.51 lbs.
Corn fodder.....	11.29 lbs.
Clover hay.....	11.29 lbs.
Cow-pea hay.....	8.31 lbs.

This shows very clearly what an advantage Southern farmers have in the cow-pea, and furnishes a pointer for every farmer who has cattle to fatten.

D.

Wake Co., N. C.

All along the road-sides one sees hedges of bush and brier which take up room, and draw sustenance from the fields where productive crops should be cultivated. The removal of these hedges would cost but little and would add greatly to the attractiveness of our farms, to say nothing of conserving fertility. In some places the bushes have become small trees, and a large space is ruined by the shade. The farmer (?) gives back a little each year, and in rare cases the field has become a little patch in the middle with hedges all around. There are other ways of improving the appearance of our farms which the intelligent farmer will not fail to see, but this matter of hedges is indeed an eyesore to the farms all over this section of the State, and I, for one, would like to see them disappear from our roadsides.—E. S. Millsapps, Iredell Co., N. C., in the Mascot.

The famous Texas steer about which so much has been written in history and which until quite recent times has figured in the development of the Great Southwest, is fast becoming extinct. The Texas steer and its companion, the cowboy, are both "passing" and will be known soon only in fiction and history. The "longhorns" are vanishing before the onward movement of the blooded stock of the North and East. Geronimo, a famous long-horned animal from Texas, when 36 years old had a pair of horns measuring nine feet and a half from tip to tip.