

MISCELLANEOUS SUGGESTIONS TO FARMERS.

A Wilson Correspondent Discusses Fertilizers, Diversification of Crops, Trusts and Barnyard Manures.

Editor of The Progressive Farmer:

Farmers as a rule get lots of advice and lots of that advice is contrary to their best interests. For instance, the manufacturers of commercial fertilizers will say to you through their pamphlets and otherwise that your stable manure is of not much value. They will advise you to sell your cotton seed and buy largely of their goods. They will advise you to plant largely of money crops, because it is to their best interest, whether it is to yours or not. It is also to the best interest of the business man that you raise large money crops, because he makes a profit on you both ways. You also have to pay the freight both ways, making it profitable to the railroad that you make large money crops.

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Now in regard to selling cottonseed, I don't believe that they are worth twenty-five or thirty cents per bushel for fertilizers. Neither is cottonseed meal worth twenty-five or thirty dollars per ton, and you have to do the hauling both ways over bad roads. Does it pay? I am very doubtful.

While I don't know much about chemistry and the analyses of the different ingredients that compose commercial fertilizers, I do know by experience that the best manure that I have ever used for any crop is a compost composed of cottonseed, stable manure, acid and kainit. You can mix in the drill if more convenient. In mixing this compost in the heap, be sure to keep it from burning by keeping it stirred. It will not only make a better crop the first year, but it will permanently improve your land. If you use it liberally on the same land for five years, it will double the crop, while if you use commercial fertilizers on the same crop for five years without rotating, your land will get worn. I have seen poor land brought up to twelve to fourteen barrels of corn, and two bales of cotton per acre mostly with the above compost with the use of but very little commercial fertilizers. Of course, you cannot manure many acres to produce that much, but what is the use to cultivate many acres to produce that much?

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Now, I want to advise you to stop buying so much commercial fertilizers, stop planting so much money crops, and raise more home supplies. It will be better for you. Will you heed it? Some of you know by experience what you have to pay for supplies. But you don't know what you are going to get for your tobacco and cotton.

The farmers ought to be the most independent set of people because they can raise almost everything they eat if they would. But when they raise a money crop they are at the mercy of some one to price every-

thing they sell or buy. I have known tenant farmers to sell their tobacco for one hundred and fifty dollars per acre, and they would be purchasing supplies on time before they were ready to plant another crop. The land-owners are to blame to some extent for this. Every landlord ought to encourage his tenants to raise all home supplies possible, enabling him as well as the tenant to get more money for what money crop they do make.

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Now for the trusts. The tobacco trust has run the prices of the leaf down just about half on the same grades, in four months. The manufactured article is just the same or a little higher. They must be making enormous profits on what they are buying now, if they made anything at all four months ago. And when you go to cure your tobacco next fall, you may have to pay big profits to the oil trust. The more oil fields are discovered and the more there is of it, the more profits the trust demands of the consumers. God made the earth and all that is therein, for the benefit of the human race. He also said that man should eat bread by the sweat of his face. The greed and avarice of the combinations and trusts have not only monopolized the earth and the useful minerals it contains, but has monopolized the very sweat that falls from the laborer's brow. God intended that supply and demand should rule the prices of all his creation. And it is the duty of the government to see that such is the case.

If the farmers would organize and stand together they could knock out every trust that affects them in two years, but they will not do it. The experience of the past has shown that it is an impossibility to get them to stand together. The next best thing is for them to raise them something to eat, money crop or no money crop, and let the trust take care of themselves. You should farm not for the money you can get, but the comfort you can get out of farming by raising everything you can that is good to eat and stop hauling so much "white side." If the farmers of North Carolina were so situated that they could plant every acre of land to grain, fruit and vegetables one year, I am sure they would never return to the present system of hauling so much dirt from the railroads to get a few pounds of chemicals to raise a money crop to enrich some one else.

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There is a question I want to ask. In analyzing commercial fertilizers I see that the value placed on 8-3-3 goods is about \$21 or \$22 on board cars at factory. How do they pay \$3 freight on it and sell it for about \$22.50, and the factory make a profit and the merchant a profit also? I have thought for some time about this but have not been able to see how it is done. For instance, take a certain brand of fertilizer that analyzes 8-3-3 and work out the ingredients at the prices given in the Bulletin and we get twenty dollars and one cent on board cars at factory, say at Richmond, freight three dollars, making \$23.01. Now I can buy that guano at \$22.50. Where is the factory profit and merchant's profit? Or is the relative value placed too high? Can some one please explain?

LEVIN WATSON.

Wilson Co., N. C.

Home-Mixed vs. Factory-Mixed Fertilizers.

It is perfectly practicable for farmers to buy unmixed fertilizing materials and prepare their own fertilizer mixtures and by so doing they may materially reduce the cost of their fertilizers. But various objections have been raised to the practice of home-mixing.

"Farmers are persuaded that the compounding of fertilizers is an intricate and difficult operation, requiring extensive acquaintance with chemistry, costly machinery, and great technical skill.

"The case well illustrates the old adage, that a half truth is a whole falsehood. The production and manufacture of fertilizing materials—that is, the selection, quarrying, grinding, and acidulation of phosphatic rock; the drying and grinding of slaughterhouse refuse, the production and refining of such materials as nitrate of soda, sulphate of ammonia, and muriate of potash—all these are distinctly manufacturing processes which require chemical or technical knowledge, skill in manipulation, and expensive machinery. But these operations are entirely separate and distinct from the compounding of mixed fertilizers. Each of the materials named comes from the manufacturer in condition to be used by itself as a fertilizer and each one is so used for special purposes. The compounding of these materials under a proprietary brand into a mixed fertilizer is no more a manufacture than is the mixing of a ration of corn and bran to be fed to a cow. The only difference is that the ration which is designed to be distributed uniformly to thousands or millions of plants requires to be more carefully mixed than that fed to a single cow. If we were feeding each plant by itself no mixing would be necessary, or if we were giving the different elements of a ration at different times; as for instance, when we apply superphosphate and muriate of potash to wheat in the fall and follow with nitrate of soda in the spring.

"This point, of the essential difference between those operations which are legitimately called manufacturing and those which are simply mixing, should be clearly understood.

"When the farmer learns that he can mix his own fertilizers and thereby materially reduce their cost the use of fertilizing materials will be largely increased, and the final outcome will be a benefit and not an injury to the legitimate trade in fertilizers."

In order to determine whether fertilizers so mixed are any less effective than factory-mixed goods, the Ohio Station began in 1897 an experiment in which a few standard brands of factory-mixed fertilizers are being compared with home mixtures of tankage, acid phosphate, and muriate of potash, containing as nearly as possible the same amounts of potash, phosphoric acid, and nitrogen claimed for the factory-mixed goods. The experiments were located on heavy white-clay soil, and a

rotation has been planned to include the three crops, corn, wheat, and clover, to follow each other in a three-year course, the fertilizers being applied to the corn and wheat. Up to the present, only the results with corn have been reported. These show that the home-mixed fertilizers gave yields fully equal to those produced by the factory-mixed goods. Basing the cost of the factory-mixed fertilizers upon what the station paid for them in small lots (200-pound sacks) at the factory and the cost of the home mixtures at the regular retail market price of the materials in single-sack lots, with freight to the station added, the saving on the home-mixed fertilizers was from \$6 to \$12 per ton.

"Acting under the advice of the station a company of farmers bought several car-loads of fertilizing materials and mixed for themselves last fall. These farmers first obtained propositions to furnish the desired materials from a considerable number of manufacturers and dealers. Selecting those which offered the best terms they concluded their purchase, the materials being guaranteed to carry a definite percentage of the required fertilizing elements. The materials, when received, were mixed according to formulae furnished by the station, and the result of their use, as shown in the fall growth of the wheat to which they were applied, a few samples of factory-mixed fertilizers of similar composition being used alongside has been such as to lead to much larger purchases for this season's operations. The final cost of their lot of fertilizer, including cost of materials, freight, and mixing, was less by more than \$500 than the lowest price at which the company was offered an equal quantity of factory-mixed fertilizers of equivalent composition and on the same terms of payment."

Bulletin No. 115 of the Kansas Experiment Station at the Agricultural College contains a description of an exact method for calculating rations for stock. Publications hitherto have claimed that this could not be done, but this bulletin shows that it can. After a somewhat elaborate treatment of the subject, of special value to students, a simplified procedure is suggested that answers all the requirements of ordinary needs. Finally, the bulletin concludes with a list of over 2100 balanced mixtures of common feeds in proportions adapted to the needs of the several classes of animals and the various purposes for which they are kept. The edition is limited, but while it lasts requests for it will be honored if addressed to the Experiment Station, Manhattan, Kan.

Mr. W. P. Gullidge, of Gullidge Township, reports that he made 46 bushels of peas last year from one planted. This tremendous crop was made after a calf and a drove of chickens had run on the peas from the time they began maturing until they were gathered.—Wadesboro Messenger-Intelligencer.