Buying and Using Fertilizers

THERE are a few things about the purchase and use of chemical fertilizers that may be regarded as settled. The science of "bag manuring" is hardly out of the cradle yet, there are hundreds of things yet to be learned and the few positive facts will help in solving new problems. We know that nitrogen, potash and phosphoric acid have a certain intrinsic value when found in fertilizers just as when found in flour or meat. We understand perfectly well that the grain we feed our horses and cattle has a fixed value determined by the cost of growing, grinding and marketing it. The food that feeds our plants in the same way and for like reasons has an intrinsic value.

Every farmer knows that the straw and the chaff of the wheat plant will make a cheap ration for his cows; but that he would starve to death on the proceeds of a dairy fed on such food. Take away the chaff and most of the straw, add grain and clover hay and you have a ration costing more and yet yielding 50 times as much profit. Both rations contain nitrogen, potash and phosphoric acid, but the grain ration contains these elements in a concentrated and digestible form. In the same way a CHEAP fertilizer might be made containing these elements in a crude, bulky, indissolvable form, for possibly half the price of a standard brand which contains twice as much soluble plant food as the cheaper one.

In buying a given amount of food in the cheap fertilizer you pay perhaps twice as much for freight, cartage, bagging and handling as you do in buying the better brand. The belief that chemical fertilizers "live but one year"—that they leach out of the soil in one season—has stood in the light of many farmers who did not dare to use fertilizer enough through fear that it would wash out and be wasted. It is true that much of the nitrogen is washed away often the first season, but the potash and phosphoric acid cannot go until the soil goes.

One Thousand Dollars Profit.

(From the New England Homestead, May 18, 1889.)

I notice that exception is taken to a statement in the *Homestead* of March 16, that a good farm of 125 acres should pay all expenses of management and return to the proprietor for his services $1,000 net profit. I agree with "C.S.R." that it ought to be done and can be done. Now what must the income from such a farm be to give about the above-named profit? I am engaged in farming, and have a farm of 100 acres, 90 of which is under cultivation, from which I sold last year over $3,300 worth of products. At the same rate per acre for 125 acres (estimating my farm at 100 acres) the sales would amount to $4,125. How was this to be brought about? I go back thirteen years, when my sales did not exceed $2,400, and did not average over $1,500 to $1,800. My system of farming is corn upon sward, potatoes, wheat and pasture, or mowing two years. The increase in salable products has been brought about by a liberal application of special crop-fertilizers, and it appears to me I am just reaching the stage of really profitable production of crops. Although I am increasing the quantities per acre each year, I hope in a few years to reach the quantity that will prove the most profitable. My application this year will be 1,500 pounds per acre for potatoes and wheat, wheat to follow the potatoes. I use no low grade fertilizer, always the highest in plant-food, with a liberal quantity of nitrogen. I have confined myself always to the XXXX Manures, believing from my thirteen years' experience that they give the best average results.—D. C. LEWIS, *Middlesex County, N.J.*