

the ground before the plants can consume it all, and the capital invested in it must remain idle so much the longer.

Deception is so easily and safely practised in this matter of commercial fertilizers, that, as a rule, they are sold for considerably more than ought to be asked for them, and not seldom there are cases of outrageous swindling. Allowing very high values for the two forms of phosphoric acid, and for nitrogen, namely, 6 cents, 25 cents and 59 cents respectively, we find that all the phosphoric acid and nitrogen which could be found by the ordinary process which is applied in the chemical analysis of fertilizers, was, in one case, worth but \$39 in a ton of the phosphate, while \$58 was asked for it; in another case \$65 was asked while the article was worth but \$53; in another case, the price was \$50, while the real value was but \$25, and finally in another case, that of a poudrette, the price asked was \$28, and the real value not over \$5. In saying, as in this last case, for instance, that the real value of all the plant-food in a ton of a fertilizer was not greater than \$5, it is meant, simply, that you could go into the market and buy as much phosphoric acid, both soluble and insoluble, and nitrogen, as is contained in this ton of manure, and obtain these substances in quite as valuable forms, for less than \$5; or this, that it should have cost the manufacturer of that fertilizer much less than \$5 a ton to prepare it, and that he would be well paid if he gave it to you at that price, or less than a fifth of what he charged for it. So far as those not in the business of manufacturing these fertilizers can judge from a careful consideration of the data to be obtained, they appear generally to be sold at a price which allows to the manufacturer a far more than reasonable profit; and certainly sometimes, though it may not be often so, they are sold at such prices, as compared with their real value, that the transaction can rightly be called nothing else than a gross swindle.

Such overcharges and frauds are easy, in part, because there is nothing in the colour, taste, or smell, or in the appearance in any respect, of a fertilizer, to show whether it contains much or little phosphoric acid, or none at all, or much or little nitrogen. I might be met, just here, by the argument, that, as compounds

rich in nitrogen
odor given of
But the fatal
the fact that
and cheap or
an easy matter
strong disagree
a quantity so

The len
cide by his
tain fertilizer
which must
satisfactory,
facturer in

It is po
ways, either
chemical an
the crop is
factory rest
trial for tw
the chemica
timation, o
the field tr
They show
any value,
had in a fe

It is saf
the chemi
assertion
but also u
has been f
many, wh
from the
countries
subjected
chemists,