

the farmer when purchasing a fertilizer to have some system of calculation whereby he may be able to tell whether that fertilizer is selling at a price according to its true market value, or not. In other words, he should know if he is getting his money's worth according to the trade value. In the case of purely mineral fertilizers it is evident from previous reading that the value depends upon the amount and condition of the nitrogen, phosphoric acid and potash present. Now, if we consider a simple mineral fertilizer like nitrate of soda, which we buy for the nitrogen it contains, it is readily seen that according to the market price of this mineral we can fix a "unit value" for nitrogen. Any unit may be adopted, but the unit most conveniently adopted in the trade is stated as being one per cent. on the basis of a ton, or 20 pounds. Thus, if nitrate of soda containing 15 per cent. of nitrogen is selling at \$55.00 per ton, the price of a unit of nitrogen is found by dividing \$55.00 by 15 per cent. = \$3.66 per unit.

Similarly, superphosphate selling at \$16.00 per ton and containing 16 per cent. available phosphoric acid gives the price for a unit of available phosphoric acid at $\frac{16.00}{16} = \$1.00$ per unit.

Again, muriate of potash selling at \$41.80 per ton and containing 48 per cent. potash gives the price for a unit of potash at $\frac{41.80}{48} = 87c.$ per unit.

According to these calculations we have the following unit values:

Nitrogen	\$3.66 per unit.
Available phosphoric acid	1.00 " "
Potash87 " "

Knowing a value for each of these units we can now readily estimate from the guaranteed analysis which accompanies a fertilizer whether it is being offered for sale at a legitimate price, or not.

Two potato manures of the following composition, respectively, are placed on the market at the prices mentioned, and it is required to ascertain which is better value.

No. I.

		Price \$32.00 per ton.
Analysis:	Nitrogen	4 per cent.
	Available phosphoric acid	8 " "
	Potash	10 " "

No. II.

		Price \$30.00 per ton.
Analysis:	Nitrogen	2 per cent.
	Available phosphoric acid	6 " "
	Potash	12 " "

From the above unit values the value of these two fertilizers would be estimated as follows:

I. Nitrogen	4 per cent., or 4 units, at \$3.66 =	\$14.64
Available phosphoric acid ..	8 " " " 8 " " 1.00 =	8.00
Potash	10 " " " 10 " " .87 =	8.70
	Actual value per ton	= \$31.34
	Price charged per ton	= 32.00
II. Nitrogen	2 per cent., or 2 units, at \$3.66 =	\$7.32
Available phosphoric acid ..	6 " " " 6 " " 1.00 =	6.00
Potash	12 " " " 12 " " .87 =	10.44
	Actual value per ton	= \$23.76
	Price charged per ton	= 30.00