We reason thus in calculating the value per ton :--

8% of	2000	lbs.=160 lbs. @ 8c.=\$12	80
7% of		=140 lbs. @ 5c.= 7	00
4% of		=80 lbs. @ 15c.= 12	00
		\$31	80

It must be remembered the foregoing prices are for the raw material in the wholesale market. Add to these prices the cost of mixing, bagging, transporting and retailing; and such a fertilizer probably could not be sold for less than \$45 per ton. The fertilizer here mentioned is a very high grade of complete fertilizer, and a representative one for a good crop of potatoes.

A word as to nitrogen and ammonia. Nitrogen is an element; ammonia is a compound of nitrogen and another element called hydrogen. Ammonia is valuable for the nitrogen it contains, and when nitrogen is quoted at 15c. per lb., ammonia is worth about $12\frac{1}{3}$ c. per lb.

Remember in buying fertilizers (so called superphosphates) nothing is of any value except available phosphoric acid, potash and nitrogen. The nitrogen may be in the form of a nitrate or ammonia. The cheapest way for the farmer to procure his fertilizer is to go into the nearest market of large cities such as New York or Boston, and purchase his nitrate of soda, dissolved bone, and sulphate or muriate of potash, and mix his own fertilizers. By a little study the average farmer can mix a special fertilizer for any crop. But it is often more convenient for him to purchase it already mixed and in smaller quantities than car-load lots. His only resource then is to buy from a reliable dealer, whose guaranteed analysis will give the purchaser an idea of the value he is getting. And most dealers have become educated in the fertilizer problem to the extent that they can give a manure adapted to the crop to which it is to be applied.

The composition of the crop, the special character of the crop, the character of the soil to be cultivated, and the particular function of each element of plant rood, must all contribute to form the basis of one's judgment in procuring fertilizers. To illustrate, all crops require some potash to grow the stem, nitrogen to grow the leaf, and phos-Phoric acid to ripen the seed or perfect the fruit. Turnips require a fertilizer rich in soluble phosphoric acid, since it appears they have a