

## MIXING OF FERTILIZERS.

From what has been said it will be realized that as the farmer's knowledge of fertilizers increases, especially through experimenting, the more he will desire to apply fertilizers according to the requirements which he finds necessary in his own practice. He will naturally prefer to use the simple fertilizers and to make up his own mixture in the proportions which his experiments demonstrate to be most profitable. In some instances he may find that an application of only one or two plant food constituents produces the greater profit. Very often the expensive nitrogenous fertilizers can be economically dispensed with. This is especially true where leguminous crops have been largely used in the rotation, thereby increasing the nitrogen content of the soil, as previously described. Thus, providing the farmer sufficiently understands the use and properties of the simple fertilizers, it is a decided advantage to make up his own mixtures according to the requirements of his soil and crops. Home made mixtures can be made up at a minimum cost. The nature and availability of fertilizers can be considered in making up a mixture. A farmer knowing exactly what he is applying is enabled to read his results more intelligently and to improve future applications.

There is no reason whatever why the farmer should not use Tankage, Dried Blood and other offal from the pork-packing and slaughter houses as a basis in his mixtures and as a source of organic nitrogen and phosphate.

### HOW TO MIX FERTILIZERS.

It is highly important that fertilizers be thoroughly mixed. Unless a farmer is prepared to carry out the work efficiently home mixing will prove a failure. In mixing manures the following directions should be followed: Select a clean, dry floor, preferably of concrete, and spread out the fertilizers in the required proportions in a heap. By means of a broad shovel turn the heap completely several times until thoroughly mixed and crush finely any lumps. The mixture should be finally passed through a fine riddle or screen (of one-eighth inch mesh) such as is used for sifting sand or gravel in making cement. Should a mixture form only a small quantity to cover a large area, the bulk should be increased to at least half a ton per acre by adding a quantity of sand or fine dry earth. This ensures more even distribution on applying.

### FERTILIZERS WHICH SHOULD NOT BE MIXED.

Some manures cannot be mixed on account of chemical action being thereby set up which results in a loss or depreciation of the fertilizing ingredients. To avoid this trouble do not mix the following:

1. Lime, wood ashes or basic slag with any manure containing ammonia, such as Sulphate of Ammonia, Farmyard Manure, or any organic manure.
2. Lime, Wood Ashes or Calcium Cyanamid with any fertilizer containing soluble phosphate, such as Acid Phosphate or Dissolved Bones.
3. Nitrate of Soda with Acid Phosphate or Dissolved Bones, except for immediate application, and under no circumstances if the Acid Phosphate or Bones be not in a fine dry condition.
4. When fertilizers of a crystalline nature like the potash salts are mixed with Acid Phosphate or Basic Slag, a hard, cement-like mass is likely to result if the mixture is not spread within a few hours. This can be avoided by adding a quantity of sawdust, dry peaty material, or earth.