

THE PURCHASE OF FERTILIZERS.

MEANING AND USE OF THE INVOICE CERTIFICATE.

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THE Fertilizers Act of 1927 provides that, for the information and guidance of the buyer, the seller of 5 cwt. or more of any fertilizer shall supply an invoice certificate setting out the nature and composition of the fertilizer and the percentage of each of the three recognized fertilizer-constituents—nitrogen, phosphoric acid, and potash. In framing legal measures it is necessary, in order that there shall be no ambiguity, to make use of certain scientific and technical terms the meaning of which is sometimes not understood clearly by the layman. Some questions that are frequently asked by farmers regarding the meaning of statements in fertilizer invoice certificates are dealt with in the following matter.

The invoice certificate states the name and brand of the fertilizer; the percentages of the fertilizer-ingredients nitrogen, phosphoric acid, and potash, and their solubility in water; the nature and proportion of each of the components of a mixed fertilizer, including any filler or diluent; and the fineness of grinding in the case of basic slag or rock phosphate. In certificates for basic slag and ground rock phosphate the seller may also state the percentage of phosphoric acid soluble in citric acid by the standard method of extraction. This, however, is optional, and since the invoice certificate is of the nature of a guarantee of quality by the seller this figure is very frequently omitted.

In the case of phosphates of any kind the essential ingredient is entered in the invoice certificate as phosphoric acid. In trade practice there is, unfortunately, a confusion of terms in respect to phosphatic fertilizers. The grade of superphosphate and of phosphatic guano is usually advertised, and branded on the bags, in terms of tricalcic phosphate (for instance, 44-46 per cent. superphosphate, 60-63 per cent. guano); while other fertilizers, such as basic slag, are graded in terms of phosphoric-acid content. One part of phosphoric acid is equivalent to approximately two and one-fifth parts of tricalcic phosphate. It will now be clear why, when buying 44-46 per cent. superphosphate, the farmer receives an invoice certificate showing it to contain about 21 per cent. of phosphoric acid. If basic slag were graded in the same way, a 17-20 per cent. slag would be sold as of 37-43 per cent. quality. In order to minimize this confusion of terms as far as possible the Fertilizers Act requires the quality of phosphatic fertilizers to be stated in the invoice certificate in terms of phosphoric acid only.

The statement of components in the invoice certificate is straightforward, and calls for little comment. It tells the buyer in just what form each of the ingredients of the fertilizer has been added; whether, for instance, the soluble nitrogen is there as nitrate of soda or as sulphate of ammonia, the phosphoric acid as bone phosphate or ground rock phosphate, &c. It also informs him what, if any, filler has been added, and in what amount. A filler or diluent is any substance, other than a fertilizer, that is added to a fertilizer or mixture of fertilizers. A filler, however, is not necessarily an adulterant. Such a substance