THE WORDS PRODUCTIVITY, OR PRODUCTIVENESS, AND FERTILITY AS APPLIED TO AGRICULTURE.¹

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The word fertility (Latin fertilitas, from ferro, to bear) was originally used by the Romans when applied to agriculture with the meaning of fruitfulness, that is, productiveness in large measure. The original application of the words fertile and fertility was primarily to regions or areas that produce abundant crops, for example, a fertile valley.

The words productivity and productiveness come from the Latin produco, to lead forth or to bring forth. In Roman usage the verb was used with various different meanings, among them that of bringing forth young. Only after the Augustan age was the word used in reference to the raising of crops. Our English words productivity and productiveness had no exact equivalents that were in use by the Romans.

The word productivity has retained in agriculture practically unvaried meanings. In a potential sense it signifies the quality or qualities of a region which enable it to grow useful crops, and in an actual sense productivity is the measure of the yields of a region as expressed in such units as pounds, bushels, tons, etc. The agricultural productivity of any region is conditioned on four series of factors, the climate, the soil, the adapted crop plants, and the adequacy of cultivation. The highest productivity exists where all four of these conditions are associated.

The word fertility in modern times has tended to become more and more restricted to the conception of soil fertility, thus excluding the other potent factors that make for productivity. In the restriction of the word fertility to this idea of soil fertility, various theories as to the nature of soil fertility have been advanced consecutively, namely, (1) that it is due to humus or vegetable matter; (2) that it is mainly a matter of physical condition or tilth; (3) that its basis is the amount and availability of certain chemical substances and especially com-

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