ORGANIC PHOSPHORUS IN SOILS.\textsuperscript{1}

Oswald Schreiner.\textsuperscript{2}

In a symposium on soil phosphates and the effects of phosphatic fertilizers it is but natural that the chief emphasis be placed on the inorganic forms of phosphorus since these play so large a part in the agricultural treatment of soils. Nevertheless, the subject would be incomplete without a consideration of the organic forms of phosphorus as well and your Chairman has asked me to present some discussion of these organic forms and their probable function in crop growth. That organic phosphorus compounds get into the soil there can be no question, that they exist in soils is not so easily shown by mere methods of analysis intended to distinguish between organic and inorganic phosphorus. The preponderance of evidence, even by these analytical methods, is now in favor of the existence of organic phosphorus in soils. The problem is made difficult by the fact that the organic phosphorus appears always to occur as phosphoric acid in the organic complex which more or less readily parts with the phosphoric acid grouping, and thus no sharp distinguishing features between phosphate occurring in organic or inorganic combinations can be had. This is neither the time nor the place for a discussion of the various methods which have from time to time been submitted for distinguishing between organic and inorganic phosphorus. These are summarized in the excellent ar-

\textsuperscript{1} Contribution from the Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. Read at the meeting of the Society held in Washington, D. C., November 20, 1922.

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