SODIUM NITRATE AS A FERTILIZER FOR CORN ON IOWA SOILS

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The large acreage of corn in Iowa and other middle west states and its agricultural importance has naturally led to many investigations of methods of increasing the yield and quality of the crop. There are several means which may be employed. The selection of varieties and the control of weeds, insects, and diseases are in the field of other workers and will not be discussed in this article. This work is concerned with the improvement of the soil so that, other conditions being equal, more corn per acre may be produced.

During the years of 1869 to 1907 there were 6,394 tests with various fertilizers for corn made in the United States. Of these, 249 were with sodium nitrate. The data from these tests were collected and summarized by Whitney in 1910. He found from the yields with the sodium nitrate tests, that the ratio of increases over no effects was 2.3 to 1, but that the average net loss per acre from the use of the fertilizer was $3.06. Where superphosphate was used in addition to sodium nitrate the net loss was reduced to $0.40 per acre. On the average, the better soils showed about as large increases as the poorer soils.

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Received for publication March 21, 1930.

Graduate Assistant. The author wishes to express to Dr. P. E. Brown his sincere appreciation of the assistance rendered in the preparation of this article and to Dr. F. B. Smith for his helpful suggestions in planning the work. Acknowledgment is also made of indebtedness to H. R. Meldrum, A. J. Englehorn, and Roy E. Bennett for their valuable assistance in the field work. Thanks is also tendered to the Chilean Nitrate of Soda Educational Bureau under whose auspices the work was made possible.