

## Soil Fertility Management

EDITOR'S NOTE.—This is an address given by Henry G. Bell, Agronomist of the Soil Improvement Committee of the National Fertilizer Association, before Ontario Agricultural and Experimental Union, Ontario Agricultural College, Guelph, January 10th, 1917. Mr. Bell is well known to many Review readers, being a graduate of O. A. C. in '05.



H. G. BELL

GENTLEMEN:

**T**HE keynote of these meetings is undoubtedly efficiency. Efficiency summons not only the maximum efforts of every citizen of this great empire, but it calls upon every acre to yield its utmost. The universal cry is for food. Never within the history of people now living, was there such a universal shortage of cereals, root crops, meat and animal food products. The last report of the International Bureau of Agriculture, Rome, shows an estimated shortage of over one billion bushels of food cereals. Last year's wheat crop in this country was between a hundred and a hundred and

fifty million bushels short of previous years. Last year's potato crop was similarly far below that of normal seasons. In the land of your neighbors to the south, there has recently been declared a shortage of nearly four hundred million bushels of wheat thus reducing their possible export to a little above nine million bushels as compared to a possible export of four hundred million in 1916.

During the past two years you have been placing great emphasis upon the bearing capacity of your soils and the productive power of your livestock. Your excellent association under the able direction of its untiring secretary, Dr. C. A. Zavitz, and his co-laborers, has been instrumental in pointing out the way of increasing yields of the important cereals and root crops of this province. Purer seed, better methods of tillage, judicious crop rotation, care in time of planting have done a great deal toward this improvement, but still the members of this association and farmers in general believe that there are higher attainments yet possible. Ontario's average yield of winter wheat per acre is a little over 20 bushels, and of spring wheat a little over 18 while that of Great Britain is well over 30 bushels per acre. Ontario's yield of potatoes for the past 10 years has not exceeded 113 bushels per acre, as an average, while that for the United Kingdom for the years 1905 to 1914 was over 213 bushels per acre. There are precise and definite reasons for these larger yields and better quality of products on land that has been under tillage for centuries