

The cost of bread has remained closer to the pre-war average than any other basic food product with the exception of canned fruits and vegetables according to an analysis of the latest Bureau of Labor Statistics made by the American Bakers' Association. Canned fruit and vegetables have advanced 57.7%, bread 63.1%, while fish is now 201.6% higher, meat 163% and butter 152%. These percentage increases are based on the 1935-1939 period. Nearly all bread sold today is enriched with vitamins and minerals, but only a small proportion of that on the market in 1939 was enriched.

FERTILIZER INCREASES WHEAT YIELDS AT LANGDON

The soil on the Langdon Substation is a fairly typical Barnes fine sandy loam. Total chemical analyses of the amounts of certain important plant food elements were made from samples collected in 1913. The results of these analyses, expressed in pounds per acre, follow:

Soil layer	Nitrogen	Phosphorus	Calcium	Magnesium
0-7	7840	1380	20,000	15,200
7-18	8600	2280	36,000	28,000
18-40	6180	3240	191,400	69,600

In the spring of 1913 a comprehensive fertilizer trial involving a 4 year rotation of corn, wheat, barley, and field peas was laid down on this Substation. These experiments were summarized by the late P. F. Trowbridge in North Dakota Agricultural Experiment Station Bulletin 134 (Sept. 1920). These experiments were continued for 6 years when they were discontinued because of lack of financial support for the Substation. In 1940 a new and simpler set of fertilizer trials was set up in a simple cropping system of wheat alternated with summer fallow or corn. Three types of fertilizer, each applied at the rate of 50 pounds per acre, are used on wheat seeded on summer fallow. The average of 9 years results (1940-48) follows:

	Yield Per Acre (Bushels)	Increase Over Check (Bushels per acre)
Check (no fertilizer)	27.0	---
0-43-0 Superphosphate	29.2	2.2
6-30-0 Ammoniated phosphate	31.1	4.1
11-48-0 Ammoniated phosphate	32.2	5.0

In 1948 all fertilized plots were 6 inches taller than the unfertilized plots at heading and also ripened 2 days earlier. The five bushel increase in yield is an 18.5 percent increase, a most striking long-time response to fertilizer in a summer fallow system. In 1948 one series of trials included growing wheat the second year after fallow without further use of fertilizer; the ammoniated phosphate returned an 8.6% increase over the unfertilized as a residual or second year benefit, but the 0-43-0 superphosphate yield was essentially the same as the unfertilized yield. (Data abstracted from reports of Superintendent Victor Sturlaugson and earlier report) H.L.W.