

# *The Effect of War on Bread Prices*

*Review of Prices in Ontario Cities as Ascertained by the Investigation Undertaken by the Department of Labor*

The marked increase in the price of bread since the outbreak of the war, concerning which there has been much comment in the press, has been the occasion of a departmental enquiry, undertaken with a view to ascertaining, so far as possible, the relation which has existed between the price of materials used in baking bread and the price of bread to the consumer. The study covers the period January 15, 1914, to June 15, 1916. It has been confined to Ontario as this is the only province in which the weight of the loaf is regulated by provincial statute. The Bread Sales Act (Ontario R. S. 1914 C. 224), generally known as the Nickle law, provides that all ordinary plain bread manufactured for sale must have either 24 ounces or 48 ounces in the loaf. Small bread may be sold in any weight not exceeding 24 ounces. The Council of every, town and village is called upon to appoint an inspector to enforce the Act and the Council of every township may appoint an inspector. Certain cities in other provinces have by-laws on this matter, but in general the statement is true that except in Ontario no uniformity in the weight of the loaf is prescribed, and accordingly bakers in other provinces could meet increased cost by selling a smaller loaf rather than by ad-

vancing prices. In Ontario the baker has no alternative other than to lower quality.

Table I shows for 24 cities in Ontario the price of bread per pound in each city and the average price in all cities on the fifteenth of each month for the period January 15, 1914, to June 15, 1916. The prices, which are those for plain white bread, are on the double-loaf or ticket basis as householders usually buy on either of these plans. By the ticket plan the price per loaf is practically the same as in buying by the double-loaf. For example, when eleven cents is the price for a double-loaf of three pounds, the price for a dozen double-loaf tickets would be \$1.30 (\$1 32).

of \$8.10 in February, but receded to \$8.00 and \$7.70 in March and April. Again in May and June \$8.10 was reached. Bread prices were advanced to meet the increased cost of flour in the following 16 of the 24 cities: Ottawa, Brockville, Kingston, Orillia, Toronto, Niagara Falls, St. Catharines, Hamilton, Brantford, Guelph, Berlin, Woodstock, London, St. Thomas, Chatham and Windsor. Prices were eight of the 24 cities, assuming, of course, that bakers in these cities continued to give the same quality of bread.

Prices continued to give the same quality of bread. From \$8.10 in June, 1915, flour declined almost to pre-war levels in anticipation of the record wheat crop of that year, reaching \$5.75 in October and November. Bread declined in all cities except Peterborough, Stratford, Owen Sound and Woodstock, and of these the three foremost were among those in which prices were not advanced in the early part of the year when flour rose to the record figure. There was also a decline at Sault Ste. Marie, but only for a few weeks. The average price for all cities fell from the record for the period of the war of 4.5 to 3.9 cents per pound in November. When flour advanced to \$7.00 in January, 1916, and \$7.20 in February, 1916, the price of bread was raised more or less promptly at Ottawa, Toronto, Niagara Falls, St. Catharines, Hamilton, Brantford, London, St. Thomas, Windsor, and more recently at Orillia, Guelph, Berlin and Chatham.

The following formula shows approximately the quantities of the different materials used in manufacturing a barrel of flour into bread:

1 barrel flour, first patents,  $\frac{1}{2}$  barrel  
second patents,  $\frac{1}{2}$  barrel.  
Sugar, 2 pounds.  
Lard, 3 pounds.  
Salt, 2.75 pounds.  
Yeast, 1.5 lbs.  
Malt extract, 1 pound.

The out-turn from a barrel of flour is about 180 loaves or 270 pounds of bread, sufficient water being added to the formula to produce this amount and cover shrinkage in baking and before sale, which may be placed at from twelve to fifteen per cent. By adding more water to the dough bakers get more water back in the weight, but this, of course, gives a poorer quality of bread. Table II shows the cost of producing on the basis of the above formula a pound of bread at the prices shown in the records of the Department as prevailing on the fifteenth of each month. The prices quoted are those for the qualities used in plain white bread and the quantities which are thought to be those usually purchased by bakers are as follows: Flour, in car lots, per barrel; sugar, granulated, in bags at Toronto, per cwt.; lard pure, in tubs at Toronto, per pound; salt, fine, at Windsor, per barrel; yeast, Fleischmann's, per pound; malt extract, Canadian, in barrels, per pound.

In the accompanying chart these cost figures are related to the price of bread. The chart shows the cost of bakers' dough according to the above formula and the average price of bread in cents per pound in the twenty-four Ontario cities on the first of each month for the period January 15, 1914, to June 15, 1916, and also the average figures for each year. It will be observed that the cost of dough advanced to a greater degree than the price of bread in the last months of 1914, but to compensate for this, price was maintained at the higher level until August, 1915, while cost declined more or less steadily from February. Cost began to rise again in December, 1915, and during the first six months of the present year has been fluctuating on the higher level. Price reached a slightly higher level in December, where it remained until April. During the past three months, however, it has advanced steadily; nevertheless, the average price per pound for the first six months of 1916 is lower than for the corresponding period of last year. The average price for the first six months of each of the three years is as follows: 1914, 3.87 cents; 1915, 4.44 cents, an advance of 14.7 per cent as compared with 1914; 1916, 4.15 cents, an advance of 7.2 per cent as compared with 1914. While the consumer has had to pay more for his bread in the first half of 1916 than in the same period of 1914, he has enjoyed a better price than in the first six months of last year.

A comparison of the advance in dough and bread as between the six war months of 1914 and the months up to and including June, 1916, may be of interest. For the seven pre-war months of 1914 the average cost for the twenty-four cities of a pound of dough according to the formula was 2.26 cents;

TABLE 1.—Prices of bread per pound on the 15th of each month in certain cities and towns of Ontario, January, 1914, to May, 1916.

		1914											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1—Ottawa .....	3.6	3.6	3.6	3.6	3.8	3.8	3.8	4.	4.	4.	4.	4.	
2—Brockville .....	3.3	3.6	3.6	3.6	3.6	4.	3.6	3.6	3.6	4.	3.3	3.3	
3—Kingston .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
4—Belleville .....	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.	
5—Peterborough .....	3.3	3.3	3.3	3.3	3.3	3.6	3.6	3.6	3.6	4.	4.	4.	
6—Orillia .....	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.2	4.2	4.2	
7—Toronto* .....	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.3	3.3	3.3	
8—Niagara Falls .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
9—St. Catharines .....	4.	4.	4.	4.	4.	4.	4†	4.	4.	4.	4.	4.	
10—Hamilton .....	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.	4.	4.	4.	
11—Bramford .....	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	
12—Guelph .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
13—Berlin .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
14—Woodstock .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
15—Stratford .....	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.	4.	4.	4.	
16—London .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
17—St. Thomas .....	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.	4.	4.	4.	
18—Chatham .....	3.6	3.6	3.6	3.6	3.6	3.6	3.3	3.3	3.3	3.3	3.3	3.3	
19—Windor .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
20—Owen Sound .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	
21—Cobalt .....	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.	4.	4.	4.	4.	
22—Sault Ste. Marie .....	4.6	4.6	4.6	4.6	4.6	4.6	4.6	5.3	5.3	5.3	5.3	5.3	
23—Port Arthur .....	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
24—Port William .....	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
Average .....	3.85	3.86	3.86	3.86	3.87	3.90	3.87	3.91	4.02	4.05	4.04	4.03	

	1915												1916					
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
1 Ottawa .....	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.4	4.	4.	4.	4.	4.4	4.4	4.4	4.4	4.4
2 Brockville .....	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
3 Kingston .....	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4 Belleville .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
5 Peterborough .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
6 Orillia .....	4.2	4.5	4.	4.	4.	4.5	4.5	4.5	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	4.5	4.5
7 Toronto .....	3.6	4.	4.	4.	4.	4.	4.	4.	3.3	3.3	3.3	3.3	3.6	3.6	3.3	3.6	4.3	4.3
8 Niagara Falls ..	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.6	4.6	4.6	4.6
9 St. Catharines ..	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.3	4.3	4.3	4.7
10 Hamilton .....	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.6	4.6	4.6
11 Brantford .....	3.3	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	3.3	3.3	3.3	3.3	3.3	4.	4.	4.
12 Guelph .....	4.	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.	4.	4.6	4.6
13 Berlin .....	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.	4.	4.6	4.6
14 Woodstock .....	4.	4.6	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
15 Stratford .....	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.7
16 London .....	4.	4.	4.	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.6	4.6	4.6
17 St. Thomas .....	4.	4.	5.3	5.3	5.3	5.3	5.3	5.3	4.6	4.	3.6	3.6	3.6	3.6	3.6	4.6	4.6	4.6
18—Chatham .....	3.3	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.	4.6	4.6
19—Windsor .....	4.3	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.	4.	4.	4.	4.	4.	4.	4.6	4.6
20—Owen Sound ..	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
21—Cobalt .....	4.	4.	4.	4.	4.	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
22—Sault Ste. Marie	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.6	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
23—Port Arthur ..	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.2	4.2	5.5	5.5	5.	5.	5.	5.	5.
24—Port William ..	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	4.2	4.2	5.5	5.5	5.	5.	5.	5.	5.

\*Average of two quotations. †3.6 on 15th. Returned to higher level in few days.

Vol. XLII.,

TABLE II

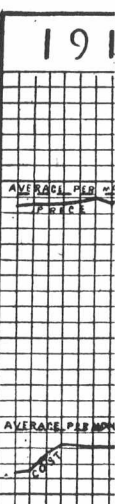
- 1.—1 barre  
1st pat
- 2.—Sugar,
- 3.—Lard, 3
- 4.—Salt, 2.
- 5.—Yeast,
- 6.—Malt E

Total C  
Cost of

—1 barrel  
1st patent  
patents :  
—Sugar 2  
—Lard, 3 p  
—Salt, 2.75  
—Yeast, 1.5  
—Malt Ext

1. Cost (270	
Cost of 1 bl.	
	Ch

for the 23 months, an increase in figures with the average price per bushel of pre-war months. .21 cents for flour and 8.7 per cent for bread is the average for the last year. Bread prices while flour is higher than bread prices in 1915 but holding prices in summer. The Ottawa, Niagara, recently at Ottawa, Berlin, and Winnipeg, and Win-



Catharines in J been declines o where bread dr which with the Ste. Marie, is t degree bakers : reased cost by et, but this is uys in small c ordinary house ave been con bread at home, f the prices fr As to the w parmental reco ractically stati reased cost of ver, as hay ha about eighteen

LIS

There were li  
ast week \$960,0  
ferred stock  
ngs, Limited. T  
ear.