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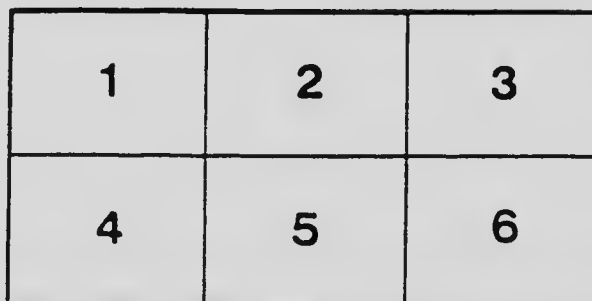
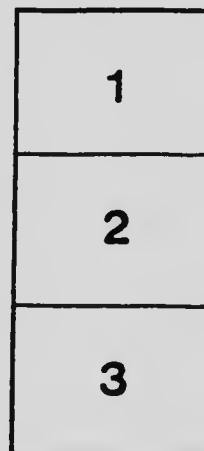
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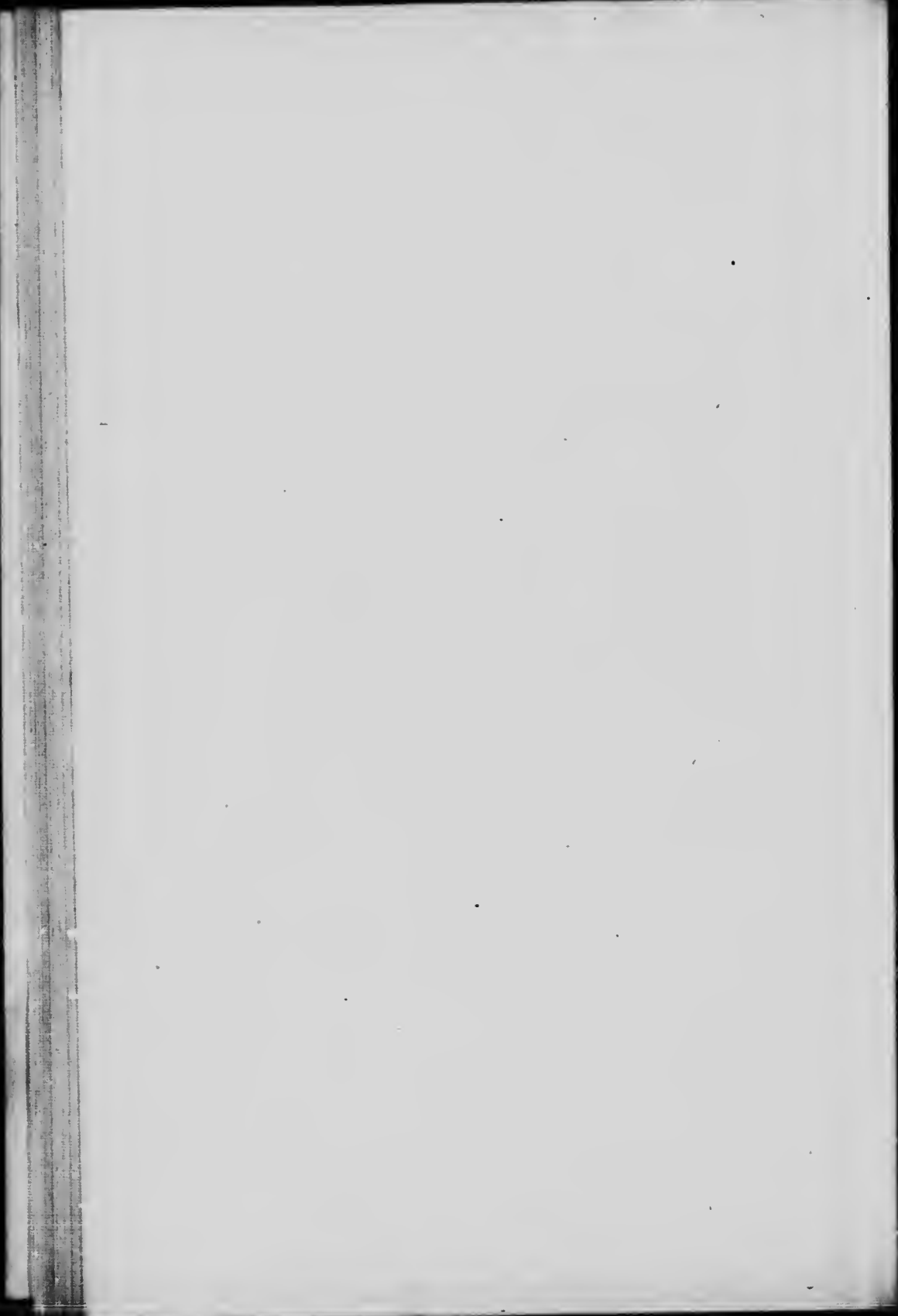
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LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 330

BREAKFAST FOODS

NOTES AND COMMENTS.

Under this heading, as occasion arises, the Bulletins issued by this Department will contain, as an appendix, such comment as may seem necessary or advisable upon matters relating to the work of the Department in connection with the administration of the Adulteration Act, the Fertilizers Act, the Feeding Stuffs Act or the Proprietary Medicines Act.

It frequently happens that correspondents ask information regarding the above Acts, of such a nature that the matter in question possesses general interest, and comment upon it would prove acceptable and useful to others than the immediate questioner. In such cases the reply may find a place in these columns. For convenience of reference these notes will be numbered in series.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 330.

BREAKFAST FOODS

OTTAWA, January 17, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I beg to submit herewith a report upon thirty-three samples of so-called Breakfast Foods. These are, for the most part, cereals which have been to some extent manufactured by heat, moisture, the addition of malt, sugar, etc. The changes brought about by these various treatments are generally very slight; if we regard the nutritive value merely. It may be that a somewhat readier digestibility than would result from the usual preparation of the cereal as a breakfast dish (by boiling with water and a little salt) may be justly claimed for these foods, and it is undeniable that certain of them possess characteristic and more or less well defined flavours which are approved by the palate.

It remains, however, that if we take their cost into consideration, they must be regarded as food luxuries. Dr. E. F. Ladd, Food Commissioner for North Dakota, has made a calculation based upon the results of work done at the North Dakota Agricultural Experiment Station, and demonstrating that, wheat costing \$1.80 per bushel, represents a selling price in the form of certain breakfast foods of \$27 (Bulletin No. 23, Vol. III, 1915). It must, of course, be left to the purchaser to judge whether he is to pay so considerable an increase in price for the slight, and sometimes equal, increase in food value represented. The cost of all foods has become so greatly advanced consequent upon world-wide disturbed conditions, that it is a duty to point out facts like the foregoing, for the guidance of those to whom economy is a matter of concern.

A very full discussion of this subject will be found in Inland Revenue Bulletin No. 84 (1902), in which appear the results of work upon 30 samples of Breakfast Foods, representing 11 different brands. In Bulletin 132 (1907) a further study of 99 samples, representing 18 different brands, will be found. The present report upon 33 samples indicates that a small number of new brands which have been placed on the market since 1907, differ in no essential feature from those previously reported.

A fairly correct notion of the relative nutritive values of these foods (assuming them to be perfectly digested and assimilated) may be obtained from inspection of the numbers in the column headed Calorific value per gram. It will be seen that, as in earlier reports above mentioned, this ranges from about 3,800 to 4,000.

There can be no doubt that oatmeal, preferably flaked or finely ground, and well-cooked by boiling, shows a food value which places it quite at the head of the list.

I beg to suggest publication of this report as Bulletin No. 330.

I have the honour to be, Sir,
Your obedient servant.

A. MCGILL,
Chief Analyst.

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF NOVA SCOTIA—

1915.							
Sept. 9	Cereal Breakfast Food.	64211	Payzant & King, Halifax	1 pkg.	18	Cream of Wheat Co., Minneapolis.	Manufacturers
" 21	" ..	64212	J. L. Wilton & Co. Halifax.	1 "	10	Can. Postum Cereals Co., Windsor.	" ..
" 21	" ...	61213	R. B. Seaton & Co., Halifax.	1 "	10	Shredded Wheat, Niagara Falls.	" ..
" 22	" ..	64214	John Tobin & Co., Halifax.	1 "	10	Battle Creek Corn Flake Co., London, Ont.	" ..
" 23	" ..	64215	Bauld Bros. Co., Ltd., Halifax.	1 "	12	Quaker Oats Co., Peterboro.	" ..

DISTRICT OF MONTREAL—

Aug. 25	Breakfast Food.	67401	Jas. McShane, 146 St., Montreal.	1 pkg.	28	Quaker Oats Co.	.....
" 25	" ..	67402	G. Brouillet, 105 Colborne St., Montreal.	1 "	10	Cream of Wheat Co.	.....
" 25	" ..	67403	J. Thibault, 98 Murray St., Montreal.	1 "	10	Kelloggs Co.	.....
" 25	" ..	67404	P. Collins, 87 Ottawa St., Montreal.	1 "	15	The H. O. Mills Co.	.....
" 25	" ..	67405	F. J. McCrory, 73 Ottawa St., Montreal.	1 "	13	Can. Shredded Wheat Co.	.....

DISTRICT OF TORONTO—

Aug. 8	Malt Breakfast Food.	69902	C. Webb, 18 Vaughan Rd., Toronto.	1 pkg.	20	Malted Cereals Co., Burlington, Vt.	.....
" 10	Roman Meal.	69903	M. D. Turner, 683 St. Clair Ave., Toronto.	1 "	25	Roman Meal Co., Toronto.	.....
" 12	Hecker's Farina.	69904	The Robt. Simpson Co. Ltd., Queen & Yonge Sts., Toronto.	1 "	13	Hecker Cereal Co., Toronto.	.....
" 13	Gusto	69905	R. E. Willis, 1891 Dundas St. Toronto.	1 "	10	The H. O. Co., Hamilton.	.....
" 13	Robin Hood Porridge Oats	69906	R. Paget & Co., 1805 Dundas St., Toronto.	1 "	10	Robin Hood Mills, Moose Jaw.	.....

DISTRICT OF OTTAWA—

Dec. 20	Roman Meal.	70611	H. Richardson, Ottawa.	3 pkgs	75	.....	.....
" 21	" ..	70618	J. Bambrick, Ottawa.	3 "	30	.....	.....
" 22	" ..	70621	H. Racine, Ottawa.	3 "	30	Roman Meal Co., Toronto.	.....

BREAKFAST FOODS.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.								Microscopical Examination.	Calorific Value per Gram.	No. of Sample.
	Total Proteids N x 6.25.	Moisture.	Petrolic ether ex- tract. (Fat.)	Alcohol Extract. (Sugar, &c.)	Water Extract. (Dextrines.)	Crude Fibre.	Total Ash.	Starch by differ- ence.			

R. J. WAUGH, INSPECTOR.

Cream of Wheat.	11.56	10.45	0.89	1.37	6.80	0.35	0.71	67.33	.....	3955.4	64211
Port Toasties....	8.00	6.25	0.30	0.75	24.65	0.12	2.77	56.17	.....	3925.8	64212
Shredded Wheat.	10.19	10.20	0.99	1.70	8.26	2.16	1.59	64.92	.....	3387.8	64213
Corn Flakes. ...	7.50	9.60	0.25	2.00	28.30	0.20	1.39	50.76	.....	3870.2	64214
Puffed Rice.....	6.19	9.85	0.25	.....	13.15	0.20	0.42	69.94	.....	3878.2	64215

D. J. KEARNEY, INSPECTOR.

Quaker Oats....	17.5	8.40	3.44	...	8.06	1.25	1.62	59.73	Oat Starch.....	4199.6	67401
Cream of Wheat.	12.4	10.92	0.89	.....	5.55	0.11	0.37	69.76	Wheat Starch...	3477.4	67402
Toasted Corn Flakes.	8.1	9.28	0.27	.....	30.45	0.36	1.36	50.18	Broken Msize Starch.	3589.4	67403
Toasted Wheat Flakes.	10.5	9.36	1.37	.....	36.10	1.32	2.70	38.65	Granules broken beyond identifi- cation.	3366.4	67404
Shredded Wheat.	11.0	9.40	1.35	.....	20.83	1.94	2.08	53.40	Wheat Starch...	3898.2	67405

H. J. DAGER, INSPECTOR.

Compound of Wheat & Malt.	14.7	9.55	1.56	.....	9.80	1.52	1.40	61.47	Broken Wheat Starch.	4005.7	69902
Roman Meal....	14.8	10.34	2.16	.....	15.87	4.35	2.94	49.04	Appar. Wheat, Rye & Linseed	3800.3	69903
Hecker's Farina.	12.0	11.36	0.89	.....	9.58	0.57	0.42	65.19	Wheat Starch...	3920.1	69904
Gusto.....	9.5	10.40	1.18	.....	33.71	0.91	2.78	41.52	Granules much broken.	3829.9	69905
Porridge Oats...	16.6	9.08	4.01	.....	8.12	0.11	1.54	59.90	Oat Starch.....	4200.6	69906

J. A. RICKEY, INSPECTOR.

.....	12.5	10.00	2.46	.....	15.70	5.24	3.10	51.00	Appar. Wheat, Rye & Linseed	3767.7	70611
.....	13.7	9.96	2.53	.....	15.40	5.02	2.80	50.54	" ..	3817.7	70618
.....	13.7	9.96	2.70	.....	15.20	5.06	2.90	50.52	" ..	3825.1	70621

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cont.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF LONDON--

1915.							
July 27	Breakfast Food.	54625	Kerr's Grocery, London.	3 pks	39	Quaker Oats Co., Peterboro.	
" 27	"	54626	B. L. Smith, London.	"	39	W. H. Kellogg, Battle Creek.	
" 27	"	54627	R. J. Denny, London.	"	45	Can. Postum Co., Windsor.	
" 27	"	54628	Thos. Shaw, London.	"	40	Can. Shredded Wheat, Niagara Falls.	
" 27	"	54629	P. Sands, London.	"	30	Battle Creek Toasted Corn Flakes Co., London, Ont.	

DISTRICT OF MANITOBA--

Aug. 13	Force	61351	J. H. Grainger Co., Cor. Westminster & Evanson, Winnipeg.	1 pkg.	15	H. O. Mills Co., Hamilton.	
" 11	Corn Flakes	61352	"	1 "	15	Krinkle Co., Ontario.	
" 14	Shredded Wheat.	61353	"	1 "	15	Shredded Wheat Co., Niagara.	
" 14	Grape Nut	61356	"	1 "	15	Can. Postum Co., Windsor, Ont.	
" 14	Puffed Wheat.	61357	"	1 "	15	Quaker Oats Co., Peterboro.	

DISTRICT OF VANCOUVER--

July 15	Cereal Breakfast Food.	55295	D. McGregor, Cor. Bute and Pender Sts., Vancouver.	1 pkg.	15	Kellogg's Toasted Corn Flakes Co., Battle Creek.	
" 15	"	55296	"	1 "	15	Can. Shredded Wheat Co., Niagara Falls.	
" 15	"	55297	W. Conling, 1374 Pender St., Vancouver.	1 "	15	Battle Creek Toasted Corn Flakes Co., London, Ont.	
" 15	"	55298	Frank Wright, 645 Seymour St., Vancouver.	1 "	15	Can. Postum Cereal Co., Windsor.	
" 16	"	55299	N. James Granville Market, Vancouver.	1 "	15	Quaker Oats Co., Chicago.	

BREAKFAST FOODS.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							Microscopical Examination.	Calorific Value per Gram.	No. of Sample.
	Total Proteids N x 6.25.	Moisture.	Petric Extract. (Fat.)	Alcohol Extract. (Sugars, &c.)	Water Extract. (Dextrines.)	Crude Fibre.	Total Ash.				Starch by difference.

JOHN TALBOT, INSPECTOR.

Puffed Wheat...	15.0	8.88	1.59	...	31.4	2.23	1.57	39.28	Granules much broken.	4001.4	54625
Krumbles, All Wheat	12.2	8.58	0.86	....	19.4	1.46	2.47	55.60	Wheat Starch much broken.	3929.2	54626
Grape Nuts.....	12.0	6.74	0.46	....	41.2	0.91	1.64	37.05	Granules much broken.	4037.2	54627
Shredded Wheat	11.1	10.20	1.20	....	29.4	1.97	1.16	53.44	Wheat Starch...	3907.8	54628
Toasted Corn Flakes.	8.3	9.78	0.24	.....	25.7	0.50	0.98	54.70	Granules broken. Maize.	3888.8	54629

J. B. COSGROVE, TEMPORARY INSPECTOR.

.....	9.10	6.95	1.46	7.74	27.18	2.85	2.40	42.32	.....	3916.7	61351
.....	8.23	7.40	0.54	8.66	29.52	0.50	0.80	44.80	.....	4025.9	61352
.....	9.54	8.10	1.54	2.34	9.06	2.26	1.30	65.86	.....	3961.0	61353
.....	11.29	4.70	0.66	19.14	28.23	1.43	1.60	32.95	.....	4100.9	61356
.....	14.88	4.80	2.06	6.86	30.73	2.25	1.70	36.72	.....	4111.5	61357

E. J. MORGAN, INSPECTOR.

Toasted Wheat Biscuit.	11.97	10.56	0.68	11.50	12.92	2.05	3.04	47.34	Wheat Starch...	3783.4	55295
Shredded Whole Wheat.	9.63	12.04	0.78	2.58	16.61	2.20	1.56	54.60	" ..	3739.9	55296
Toasted Corn Flake.	6.77	13.26	0.14	7.82	20.45	0.35	1.88	49.33	Apparently Maize.	3671.6	55297
Grape Nuts...	10.20	10.70	0.76	14.56	36.37	1.10	1.94	24.37	Wheat and Barley Starch.	3835.1	55298
Pettijohn's Breakfast Food.	7.29	13.22	1.40	4.02	7.94	1.40	1.48	63.25	Wheat Starch...	3719.1	55299

