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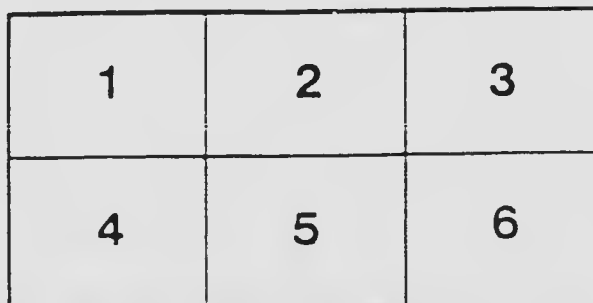
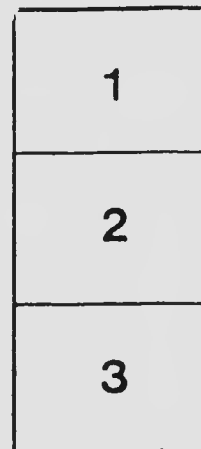
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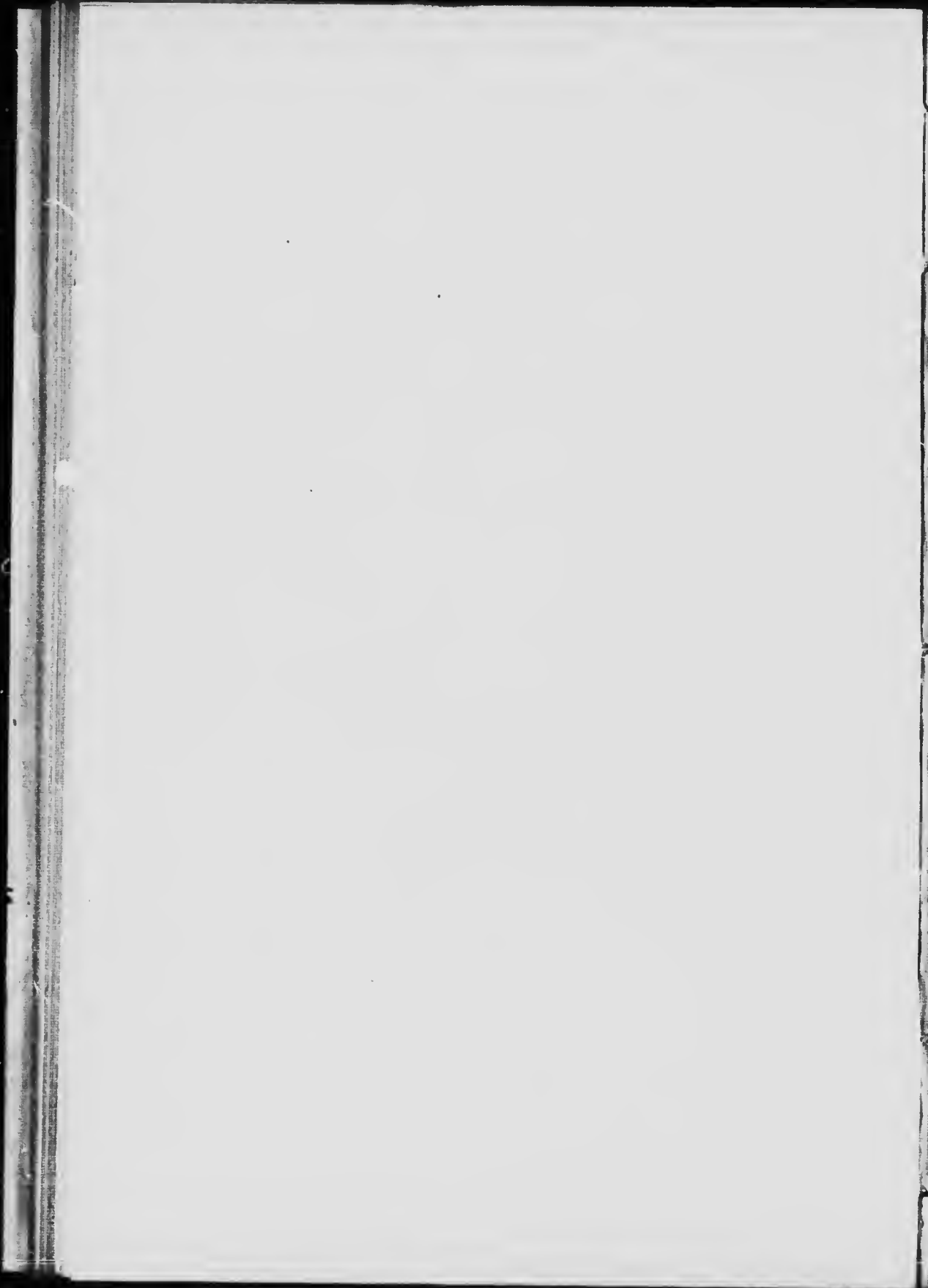
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O. H. M. S.

*W. J. Gerald*  
Deputy Minister.

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LABORATORY  
OF THE  
INLAND REVENUE DEPARTMENT  
OTTAWA, CANADA  
BULLETIN No. 132  
BREAKFAST FOODS.

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# LABORATORY OF THE INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 132

BREAKFAST FOODS.

OTTAWA, March 25, 1907.

W. J. GERALD, Esq.,  
Deputy Minister of Inland Revenue.

SIR—On the 22nd October last a collection of what are known as “Breakfast Foods” was authorized by you and the samples were obtained in the open market by the food inspectors in the month of November following. They have since been examined at this Laboratory, and the results are detailed in the table which accompanies this report, in which the names of the various brands, their vendors and manufacturers, and some of the claims made by the latter for their articles, are also given. The following is a memorandum of the number of samples obtained in the various inspection districts:—

District	Samples.
Nova Scotia	6
P. E. Island	3
New Brunswick	6
Quebec	12
St. Hyacinthe	10
Montreal	12
Ottawa	8
Kingston	8
Toronto	10
London	8
Manitoba	8
British Columbia	8
<b>Total</b>	<b>99</b>

The food inspectors were instructed to obtain as great a variety of these ‘breakfast foods’ as possible, and perhaps some have been collected which do not properly belong to that class, and which do not much differ from the rolled oats or wheaten flours described in former Bulletins (see Nos. 98 and 127). The whole of the work connected with these 99 samples was carried out by Mr. J. G. A. Valin and is to be considered as having a bearing on some of the points referred to by Mr. McGill in his report of 10th December, 1902, published in Bulletin No. 84 on Cereal Breakfast Foods. The expression “Breakfast Foods” seems to be used for indicating that an addition of some sort has been made to the cereal used as a basis, or that the latter has received a certain amount of “preparation” or “cooking.” Mr. McGill says that the claim of the manufacturers of the cooked or malted foods is that by the process to which they have been subjected the “insoluble starch is converted into soluble maltose and dextrine.” The extent to which such alterations have been made seems to be best indicated by the percentages of alcoholic or aqueous extract as ascertained by Mr. Valin. The process followed by him is known as the Crysolite or Asbestos Fibre Method, and consists in distributing the fine-ground sample through such fibre contained in Macfarlane tubes, and subjecting these to drying and hot percolation which give the results detailed in the tabulated statement. The first in the columns of results contains the total proteids, being the nitrogen determined by the Kjeldahl-Gladding method multiplied by 6.25. The second is headed “moisture” and signifies loss at 100° C. The third column gives the loss to

petroleum ether and is equivalent to fat. The fourth column shows the loss which the sample experienced from hot percolation with alcohol of 92 per cent, which is capable of removing sugars as well as some soluble proteids. Column five gives the substances removed by warm water, after the alcohol treatment, which are chiefly dextrines originally present in the sample or derived from the starch in the "preparation" of the breakfast foods. The headings of the other columns explain themselves.

In the tabulated statement the results are given in the order of the various collection districts and as obtained by the food inspectors, but in the following arrangement I have placed the analyses together which belong to those foods of which more than one sample has been collected, and which seem therefore to have been in greatest demand. This tabulation also admits of indicating the average percentages of certain important constituents.

## GRAPE NUTS.

No. of Sample.	Proteid-N, x 6.25.	Moisture.	Petroleum Ether Extract (Fat).	Hot Alcohol Extract (Sugars, &c.)	Warm Water Extract (Dextrines).	Crude Fiber.	Total Ash.	Starch approximately by difference.
28329	13.12	7.00	0.76	12.20	30.20	1.80	1.60	33.32
30202	10.94	4.72	0.40	14.96	31.84	1.70	1.06	34.38
25919	11.73	5.76	0.40	16.48	27.76	0.85	1.26	35.76
28190	11.67	5.00	0.00	15.68	27.84	1.00	1.42	37.39
Average . . . . .	11.86	5.62	0.39	14.83	29.41	1.34	1.34	35.21

## PUFFED RICE.

25914	8.75	8.02	0.12	0.00	16.04	1.45	0.84	64.78
25916	8.31	8.24	0.00	0.00	20.80	0.75	1.00	60.90
	8.53	8.13	0.06		18.42			

## QUAKER RICE.

32502	10.94	7.80	0.12	0.00	22.96	0.70	0.64	56.84
30204	11.35	9.20	0.40	0.00	17.12	0.60	0.40	61.33
30230	12.37	8.80	0.00	0.00	14.80	0.75	0.20	63.08
	11.55	8.60	0.04		18.29			

## EGG-O-SEE.

582	12.06	8.16	0.20	1.92	11.80	2.50	1.82	61.54
27201	10.93	8.40	0.41	0.84	14.20	2.70	1.92	60.57
31624	13.25	7.48	0.52	0.44	14.84	1.90	1.40	60.17
26394	13.81	6.92	1.44	0.00	12.80	2.15	2.28	60.60
31018	12.25	8.04	0.00	2.20	12.48	1.70	1.88	61.45
	12.46	7.80	0.52	1.08	13.12			

## CANADA FLAKES.

31615	11.87	7.20	0.20	2.8	11.52	2.25	2.56	61.52
29363	13.12	7.84	0.40	4.36	14.96	2.35	1.80	58.17
31015	12.56	7.81	1.06	4.32	13.36	2.10	2.56	55.96
31024	10.06	7.72	1.00	2.68	12.20	2.25	1.96	62.13
30220	13.12	8.56	0.32	2.92	11.40	1.60	1.92	60.16
25917	11.37	7.04	0.32	1.92	13.44	1.50	2.00	62.41
	12.01	7.70	0.54	3.18	12.31			

## MALTA VITA.

No. of Sample.	Proteids N. x 6.25.	Moisture.	Petrolic Ether Extract (Fat).	Hot Alcohol Extract (Sugar, &c.)	Warm Water Extract (Dextrines).	Crude Fibre.	Total Ash.	Starch ap- proximate- ly by difference.
28326	11.36	9.08	0.68	4.16	11.08	2.60	2.28	58.76
24291	12.25	5.75	1.20	4.20	11.68	2.60	2.28	60.04
26058	13.12	7.08	0.88	2.80	11.40	2.45	2.12	60.15
591	13.62	7.60	0.40	3.52	11.92	2.35	1.58	59.01
31618	14.00	7.16	0.40	2.64	11.28	2.00	1.60	60.92
30296	11.81	8.52	0.88	3.08	12.84	2.00	1.76	59.11
25911	10.50	7.44	0.00	1.80	14.40	1.65	1.62	62.59
	12.38	7.52	0.63	3.17	12.08			

## ORANGE MEAT.

24294	11.87	9.76	0.56	2.08	9.92	2.99	1.36	61.56
26057	12.50	8.12	0.60	3.00	11.88	2.30	1.92	59.68
575	13.56	8.96	0.32	2.76	11.80	2.80	1.80	58.00
31614	13.62	6.92	0.48	4.20	12.84	2.35	2.00	57.59
31022	10.94	7.52	0.24	5.60	11.28	2.35	2.28	59.75
28189	11.37	8.00	0.28	7.04	12.16	1.50	1.80	57.89
	12.31	8.21	0.41	4.11	11.64			

## VIM.

577	11.87	9.04	0.56	3.12	10.56	2.30	1.52	61.03
31613	13.56	7.60	0.98	3.96	11.92	2.35	2.00	58.53
	12.71	8.32	0.32	3.54	11.24			

## BLANCO CERO.

28331	15.75	8.44	0.80	2.68	10.48	3.30	2.84	55.71
571	16.62	8.12	0.88	3.08	11.68	3.20	2.48	53.91
	16.18	8.28	0.84	2.88	11.08			

## FORCE.

27202	10.50	7.84	0.52	2.28	9.88	2.55	1.66	64.77
27214	10.12	8.52	0.76	2.64	8.88	2.85	2.88	63.95
26055	13.43	8.40	1.40	2.72	10.24	2.70	1.64	59.47
31623	13.38	8.00	0.84	2.76	11.68	2.50	2.08	58.76
30207	10.94	8.44	0.96	0.84	11.64	2.48	1.52	63.18
32009	11.37	8.48	0.48	3.72	11.28	1.60	2.08	60.99
	11.62	8.28	0.83	2.49	10.60			

## GUSTO.

27203	10.56	8.08	1.84	2.84	9.40	2.20	2.10	62.98
24290	12.93	6.80	1.36	3.36	8.40	3.50	1.80	61.85
26056	12.94	8.16	1.80	3.16	7.36	1.80	1.80	62.98
26061	12.93	8.56	1.60	0.92	11.26	2.00	1.60	61.03
576	11.37	8.92	1.44	1.28	10.52	2.40	1.22	62.85
31617	13.37	8.56	0.40	2.40	11.20	2.00	1.60	60.47
32303	13.25	6.56	1.12	3.44	12.00	3.30	2.04	58.29
30196	10.50	7.96	0.84	2.00	10.72	1.65	1.42	64.91
	12.23	7.95	1.30	2.42	10.12			



## MALT BREAKFAST FOOD.

No. of Sample.	Proteids N. x 6.25.	Moisture.	Petrole Ether Extract. (Fat).	Hot Alcohol Extract (Sugars, &c.)	Warm Water Extract (Dextrines).	Crude Fibre.	Total Ash.	Arch ap- proximate- ly by difference.
27207	11.87	6.60	1.20	10.08	7.32	1.30	1.16	60.47
580	14.43	8.08	1.08	6.56	8.72	1.65	1.24	58.24
31621	15.31	6.76	0.60	6.72	10.08	1.10	1.24	58.19
31020	14.00	7.60	0.60	6.96	9.44	1.65	0.82	58.93
30242	12.37	7.28	0.52	7.96	9.80	1.20	1.06	59.81
30247	11.37	7.68	0.08	6.96	9.24	1.50	1.48	61.69
25920	11.73	7.24	0.00	8.08	8.72	0.50	1.64	62.09
	13.01	7.46	0.58	7.61	9.05			

## PETIT JOHN'S B. F.

581	12.56	9.76	0.60	3.92	7.32	2.45	1.60	64.79
25918	9.62	7.68	0.48	2.40	7.72	1.25	1.42	59.43
	11.09	8.72	0.54	1.66	7.52			

## RALSTON HEALTH B. F.

1.95 1.51 62.11

31622	15.87	9.52	1.00	2.80	7.17	1.45	1.36	60.83
28196	13.25	9.44	0.00	2.40	6.00	1.25	1.28	66.38
	14.56	9.48	0.50	2.60	6.58			

## CREAM OF WHEAT.

27215	11.87	9.60	0.48	1.92	2.08	0.60	0.80	72.6
578	12.25	9.84	0.00	0.00	6.44	0.40	6.60	70.47
31620	13.83	9.44	0.32	0.00	7.76	0.50	0.40	67.75
29392	14.00	9.52	0.76	0.00	7.20	0.45	0.32	67.71
	12.99	9.60	0.39	0.48	5.87			

## THE KING'S FOOD.

24293	13.12	8.00	1.60	3.32	5.44	1.80	1.98	65.34
579	12.81	8.88	0.96	1.68	5.92	2.00	1.84	65
	12.96	8.44	0.98	2.50	5.68			

## QUAKER OATS.

26050	16.18	7.88	4.84	3.48	4.70	1.85	1.68	59.39
26062	16.18	8.04	4.76	3.60	4.80	2.30	1.56	58.76
29391	16.87	7.43	6.16	2.16	6.08	1.70	1.74	57.81
31019	13.12	7.60	5.08	3.44	5.48	2.40	1.80	61.06
25915	14.00	7.65	5.20	1.80	5.16	1.95	1.28	62.96
	15.27	7.73	5.21	2.89	5.24	2.04	1.62	60.00

## BREAKFAST FOOD—NO TRADE MARK GIVEN.

26043	13.81	9.68	0.72	1.60	4.72	1.50	1.30	66.67
26046	12.94	9.32	0.84	2.24	4.36	1.85	1.44	67.01
26054	12.85	9.40	0.76	1.44	3.96	2.20	1.60	67.79
	13.20	9.46	0.77	1.76	4.34			

It is reasonable to assume that the greater the percentage of aqueous extract (after alcohol) found in the sample the greater is the extent to which the starch has been changed. In the following statement all the different brands collected have been arranged according to the amount of this percentage beginning with the highest.

No. of Sample.	Brand	Proteids.	Fat.	Hot Alcohol Extract.	Aqueous Extract.
Average of 4 samples	Grape Nuts.	11.86	0.39	11.83	29.41
28195	Malted Cereal	9.47	0.64	10.40	20.00
28188	Malta Ceres	14.00	0.24	6.18	18.72
Average of 2	Puffed Rice	8.53	0.46	0.00	18.42
" 3	Quaker Rice	11.55	0.04	0.00	18.29
31023	Toasted Corn Flakes	7.88	0.64	5.00	17.48
31619	Granose Flakes	11.00	0.16	4.56	13.92
30245	Norka	14.00	2.16	6.16	13.68
30244	Apatezo	15.31	0.00	3.52	13.44
29100	Zest	12.75	0.56	1.00	13.44
Average of 5	Egg-O See	12.46	0.52	1.08	13.22
" 6	Canada Flakes	12.01	0.54	3.18	12.31
" 7	Malta Vita	12.38	0.63	3.17	12.08
" 6	Orange Meal	12.31	0.41	4.11	11.64
" 2	Vim	12.71	0.32	3.54	11.24
" 2	Blanco Cero	16.18	0.84	2.88	11.08
" 6	Force	11.62	0.83	2.49	10.60
31616	Swiss Food	13.12	1.04	2.32	10.50
Average of 8	Gusto	12.23	1.30	2.42	10.12
" 7	Malt Break F	13.91	0.58	7.61	9.05
" 2	Petit John's Break, F	11.00	0.54	1.66	7.52
30205	Pancake Flour	10.50	0.16	4.00	7.28
24292	Shredded Wheat	12.68	1.20	0.00	7.08
30246	Buckwheat Flour	7.31	0.40	2.56	6.88
Average of 2	Ralston's	14.56	0.50	2.60	6.58
28193	Capitol Farina	8.31	0.60	0.00	6.40
30220	Choks Flaked Rice	11.62	0.00	0.00	6.24
32301	Beaver Oats	16.87	5.64	1.96	5.88
Average of 4	Cream of Wheat	12.99	0.39	0.48	5.87
" 2	The King's Food	12.96	0.98	2.50	5.68
28191	Man Hard B. F.	11.06	0.00	0.16	5.56
30203	Cerata Wheat	10.50	0.36	0.00	5.48
Average of 5	Quaker Oats	15.27	5.21	2.80	5.24
30199	Hecker's Homing	8.75	0.84	0.80	5.00
26050	Saxon Oats	16.18	4.32	3.20	5.00
31021	Quaker Corn Meal	8.12	6.48	1.60	4.88
30248	Hecker's Farina	11.37	0.00	0.00	4.56
26063	Pilsen's Oats	16.00	5.72	3.28	4.52
Average of 3	Various B. F.	13.20	0.77	1.76	4.34
24295	Gutz	14.68	1.96	3.36	3.76
30241	Hornby Outinck	16.62	6.00	2.20	1.42

If reference is made to Bulletin No. 127, it will be found that the percentage of aqueous extract (after alcohol) contained in the 12 samples of rolled oats there described, which have had no previous cooking, averages 2.12 and never exceeds 3.00. It would therefore seem to be reasonable to conclude that those breakfast foods prepared from oatmeal which yield more than 3 per cent aqueous extract have experienced "cooking" to some extent. It does not appear, however, that many of these breakfast food samples have been prepared from oats because only the following contain such an amount of fat as would indicate that origin:—

	Proteids	Fat	Alcohol extract	Aqueous extract
	p. c.	p. c.	p. c.	p. c.
Beaver Oats	16.87	5.61	1.96	5.88
Quaker Oats	15.27	5.21	2.89	5.24
Saxon Oats	16.18	1.32	3.20	5.00
Pilson's Oats	16.00	5.72	3.28	4.52

It will be observed that these samples have all yielded more than 3 p. c. of aqueous extract, and it may be inferred that these foods have experienced an amount of "preparation" corresponding to the percentage stated.

In the following table will be found the average analysis of 12 samples of rolled oats described in Bulletin No. 127 as well as of 2 samples of porridge made from the same article the one (I) without addition and the other (II) with an appropriate quantity of common salt:—

	Total proteids	Moisture	Fat	Alcohol extract	Water extract	Crude Fibre	Total ash	Starch ap- proxima- tely and by differ- ence
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
Rolled oats (average)	12.56	8.71	4.71	3.77	2.12	1.64	1.45	65.01
Porridge I	3.00	83.98	0.09	0.54	1.22	0.22	0.65	10.80
Duplicate	2.88	83.11	0.12	0.07	1.31	0.26	0.62	11.32
Porridge II	3.00	82.96	0.20	1.14	2.38	0.20	0.32	9.20
Duplicate	3.16	82.97	0.18	1.05	2.17	0.20	0.96	9.18

When these figures are calculated on the dry substance the results are as follows:—

	Total proteids	Moisture	Fat	Alcohol extract	Water extract	Crude Fibre	Total Ash	Starch ap- proxima- tely and by differ- ence
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
Rolled Oats	13.76	.....	5.19	4.13	2.32	1.80	1.79	71.21
Porridge I	18.72	.....	0.55	0.34	7.02	1.37	3.90	67.41
" duplicate	17.04	.....	0.70	0.37	7.78	1.52	3.81	68.79
" No. II	17.60	.....	1.17	0.69	13.97	1.18	5.39	53.98
" duplicate	18.55	.....	1.05	6.18	13.50	1.18	5.63	53.88

If the analyses of the four varieties of prepared oats above mentioned are calculated on their dry substance the resulting figures may be compared with those obtained from analyses of the porridge samples. None of them however show more than 6.37 per cent. of aqueous extract which does not amount to one-half of that obtained when porridge is prepared in the old fashioned way. It is worthy of remark that the figures here recorded show that cooking oatmeal without salt is a very ineffective way of "predigesting" the starch which it contains. Porridge No. II, cooked with salt, contains twice the amount of soluble dextrines produced in preparing No. I. Another fact which is brought out by these tests is that the fat seems to disappear during the cooking. It is very probable, however, that it enters into some sort of combination with the proteids, such as renders it incapable of removal by the usual solvents. Dr. Chamberlain of Washington has

found that the fat of wheaten flour in the process of baking bread also enters into combination with the proteids.

For by far the greater number of the samples described in the tabulated statement it is claimed that they are made from wheat and judged by their percentages of aqueous extract, most of them have experienced such amounts of preparation as to make them, in different degrees, more easily digested than wheaten flour. Samples of the latter frequently show as much as 4 per cent of aqueous extract after alcohol, but it would seem unreasonable to look upon any foods from wheat as specially prepared unless yielding much more than that percentage. In considering the question as to what degree of "cooking" a "prepared breakfast food" should have undergone it is scarcely possible to avoid enquiring as to what amount of change wheaten flour undergoes in baking. To ascertain this the following analyses were made by Mr. Valin (in exactly the same manner as all the examinations above described), of dried bread crumb and dried bread crust. The former (I) in drying lost 31.96 per cent of its weight and the latter (II) 50.82 per cent:—

Bread.	Total proteids.	Moisture.	P. E. extract.	Alcohol extract.	Water extract.	Crude Fibre.	Total Ash.	Starch by difference.
(I) Crumb. ....	12.67	2.56	0.00	0.00	16.32	0.70	1.06	66.69
Duplicate.	12.56	2.08	0.00	0.00	15.64	0.60	1.16	67.96
(II) Crust. ....	12.75	0.36	0.40	3.56	13.20	0.75	1.16	67.82
Duplicate.	12.81	0.48	0.40	4.00	12.88	0.70	1.00	67.83

When these figures are calculated on the dry substance they show that bread contains from 13 to 16.75 per cent of substances soluble in water after alcohol, an amount which much exceeds that contained in most of the breakfast foods described in the tabulated statement. Assuming dry bread to contain an average of 15 per cent aqueous extract, and the moisture contained in breakfast foods to be about 8 per cent, it follows that, to be as well "prepared" as bread, the foods ought to show 13.8 per cent of aqueous extract. This, as shown in the figures given above, is the case with only about twenty per cent. of the brands collected.

For a good many of the samples described it is claimed that an addition to them of malt extract or of sugars has been made. The extent of this addition is roughly shown in the percentage of hot alcohol extract. But in the preparations from wheat a certain amount of this percentage may represent gliadin. The amount of this and other substances usually removed from wheaten flour by hot alcohol percolation is about five per cent and therefore it would be unsafe to regard those samples containing less than that as having had any malt or saccharine addition. It was not thought necessary to estimate the sugars present or determine those produced in cooking any of the samples by the action of the malt diastase which they might contain. The latter operation seems to lie beyond the scope of a food analysis, and besides, while "cooking is recommended" for some of the foods, in others it is stated to be unnecessary. An approximate estimation of the residual or insoluble starch has been made from which it will be seen that the "predigestion" claimed for many of the foods is not by any means complete, and that the use of the saliva and gastric juice cannot yet be dispensed with.

It has not been found advisable to introduce into the description of the various brands described all the claims made for them, some of which remind one of patent medicine advertising. But the essential features of the claims made are placed on record, and it is impossible to avoid remarking on the different degrees of subdivision effected in their treatment. That varies from "rolling" to "flaking" of a very complete character in which the grains are brought into the condition of thin, semitranslucent laminae. It is quite possible that this thinning out increases the digestibility but it is a question as to whether this change is worth the extra cost. It is not easy to get at

the price of these articles per pound owing to the indefinite and varying weights contained in the packages. But it seems to amount to from 5 to 23 cents per lb. Since oatmeal or wheaten flour is retailed at from 3 to 4 cents, it becomes a question as to how far the extra price is justified.

With reference to the question of adulteration it does not appear that any of the samples referred to in this report can be challenged with effect under any of the provisions of the Act. The names under which they are sold are too fanciful and indefinite and do not admit of being compared with their composition. Even in the case of those foods which claim to be "malted," and may not contain diastase it is doubtful as to whether they could be challenged in the absence of a standard.

I have the honour to be, sir,

Your obedient servant,

THOMAS MACFARLANE,  
*Chief Analyst*

## RESULTS OF AN INSPECTION OF A COLLECTION

## DISTRICT OF NOVA SCOTIA

Date of Collection.	Nature of Sample	No. of Sample	Name and Address of Vendor.	Cosr.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Cents.		
1906.							
Nov.	5 Egg O See	2720	J. Frank Crowe, Halifax, N.S.	1 lb.	10	Egg-O See Cereal Co., Quincy, Ill., U.S.A.	Labelled 'Egg O See'; made from choicest wheat; drawn from 1 lb. package.
"	5 Breakfast Food Force	27202	Baird Bros. & Co., Halifax, N.S.	1 lb.	13	Force Food Co., Buffalo, N.Y.	Labelled 'the whole of wheat force combined with barley malt.'
"	5 Gusto	27203	John Tobin & Co., Halifax, N.S.	1 lb.	10	The Hoco Mills Co., Buffalo, N.Y.	Labelled 'Gusto.'
"	5 Malt Breakfast Food.	27207	W. C. Anderson, George St., Halifax, N.S.	2 lb.	18	The Malted Cereal Co., Burlington, Vt., U.S.A.	Labelled 'the choicest whole wheat combined with the best barley malt; rich in malt gluten and phosphate.'
"	7 Force Breakfast Food	27214	S. L. Cross, Kentville, N.S.	1 lb.	15	Force Food Co., Buffalo, N.Y.	Labelled 'the natural food for creating power, &c.'
"	8 Cream of Wheat.	27215	Wentworth Stores, Windsor, N.S.	2 lb.	20	Cream of Wheat Co., Minneapolis, Min.	Sold as 'cream of wheat.'

## DISTRICT OF PRINCE EDWARD ISLAND

Nov.	5 Malta Vita	28326	Brace & McKay, Summerside.	3 pkgs.	15	Malta Vita Pure Food Co.	Labelled 'concentrated malted food; ready to eat. Pure pre-digested, thoroughly cooked, prepared from selected wheat, barley malt and other ingredients.'
"	6 Grape Nuts.	28329	Geo. Rackham, Charlottetown	3 lb.	45	Postum Cereal Co., Battle Creek, Mich.	Labelled 'a food for brain and nerve centres; fully cooked; pre-digested; dextrose and grape sugar; made by special treatment from wheat and barley.'

## OF SAMPLES OF BREAKFAST FOODS.

R. J. WAUGH, INSPECTOR.

## RESULTS OF ANALYSIS.

Additional Observations and Quotations from Label.	Total Proteids, N x 6.25.	Moisture.	Petroleum Ether Extract (Fat).	Alcohol Extract. (Sugars, &c.)	Water Extract. (Dextrines).	Crude Fibre.	Total Ash	Starch, approxi- mately by dif- ference.	No. of Sample.	Remarks by Analyst. (Microscopical Exami- nation).
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.		
In flakes; not sweet tasted.	10.93	8.40	0.44	0.84	14.20	2.70	1.92	60.57	27201	Apparently wheat; granules much broken.
" "	10.50	7.84	0.52	2.28	9.88	2.55	1.66	64.77	27202	" "
" "	10.56	8.08	1.84	2.84	9.40	2.20	2.10	62.98	27203	Starch granules all broken.
Granular; not sweet tasted.	11.87	6.60	1.20	10.08	7.32	1.30	1.16	60.47	27207	Wheat or barley starch; probably a mixture.
Flaked; not sweet tasted.	10.12	8.52	0.76	2.64	8.88	2.85	2.28	63.95	27214	Starch granules much broken; apparently wheat.
Finely granular.	11.87	9.60	0.48	1.92	2.08	0.60	0.80	72.65	27215	Wheat starch.

T. MOORE, INSPECTOR.

Flaked; not sweet tasted.	11.36	9.08	0.68	4.16	11.08	2.60	2.28	58.76	28326	Starch granules much broken; wheat or barley.
Coarsely granular; sweetish tasted; brown colored.	13.12	7.00	0.76	12.20	30.20	1.80	1.60	33.32	28329	Wheat or barley; probably a mixture of both.

## RESULTS OF AN INSPECTION OF A COLLECTION

## DISTRICT OF PRINCE EDWARD ISLAND—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Cents.		
1906.							
Nov. 6	Blanco-Cero	28331	Sanderson & Co., Charlottetown.	3	"	45 C. F. Blanke & Co., St. Louis, Mo.	Blanco Cero, cooked and ready to serve; scientifically prepared from whole grain.

## DISTRICT OF NEW BRUNSWICK—

Nov. 15	Gusto	24290	Hall & Fairweather, 719 Ward St., St. John, N.B.	3 pkgs	"	25 The Hogo Mills, Buf- falo, N.Y.	Labelled 'Gusto'; ready for the table. Crisp, delicious wheat food.
" 16	Malta Vita	24291	The Two Barkers, Ltd., 500 Princess St., St. John, N.B.	3	"	30 Malta Vita Pure Food Co., Battle Creek, Mich.	Labelled 'the perfect food'; guaranteed ab- solutely pure concentrated malted food.
" 17	Shredded Wheat	24292	Charles A. Clark, 49 Charlotte St., St. John, N.B.	3	"	45 Canadian Shredded Wheat Co., Ltd., Nia- gara Falls, Ont.	Labelled 'shred- ded wheat'. Patented May 27, 1896.
" 19	The King's Food.	24293	W. F. Hatheway Co., Ltd., 17-18 South Wharf, St. John, N.B.	3	"	75 The Robert Greig Co., Ltd., Toronto, Ont.	Labelled 'The King's Food'. Made in Can- ada. Ideal wheat food, &c
" 20	Orange Meat	24294	McPherson Bros., 181 Union St., St. John, N.B.	3	"	45 The Frontenac Cereal Co., Ltd., Kingston, Ont.	Labelled 'Orange Meat'; made in Canada; re- quires no cook- ing; ready to serve.
" 20	Gritz	24295	W. F. Hatheway Co., Ltd., 17-18 South Wharf, St. John, N.B.	3	"	35 Vendors.	Trade mark 'Gritz.' This article of food is ahead of oat- meal.

## DISTRICT OF QUEBEC—

Nov. 12	Breakfast Food	26043	François Bourrett, 143 St. Paul, Que.	2 lbs.	"	15 N. Rionx et Cie.	
" 12	"	26046	Ozias Lacroix, 19 St. Joseph, Que.	2	"	15 Thomas Davidson, Que.	
" 13	"	26054	L. N. Bergeron, 20 Couronne St., Que.	1	"	30 Not known	



OF SAMPLES OF BREAKFAST FOODS—Continued.

T. MOORE, INSPECTOR—Continued.

Additional Observations and Quotations from Label.	RESULTS OF ANALYSIS.								No. of Sample.	Remarks by Analyst (Microscopical Examination).
	Total Proteins N x 6.25.	Moisture.	Petrolic Ether Extract (Fat).	Alcohol Extract. (Sugars, &c.)	Water Extract. (Dextrines).	Crude Fibre.	Total Ash.	Starch approxi- mately by difference.		
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
Contents of 1 package weigh 1 lb.	15.75	8.44	0.80	2.68	10.48	3.30	2.84	55.71	28331	Wheat starch.

J. C. FERGUSON, INSPECTOR.

Contents of package weigh 19 ounces.	12.93	6.80	1.36	3.36	8.40	3.50	1.09	61.85	24290	Wheat starch.
Contents of package weigh 12½ oz.	12.25	5.75	1.20	4.20	11.68	2.60	2.28	60.94	24291	Starch granules much broken; wheat or barley.
Food in 1 package weighs 13½ oz.	12.68	8.00	1.20	0.00	7.08	2.76	1.89	66.54	24292	Wheat starch.
Rolled; made from selected Canadian wheat. 1 package contains 3 lbs. 6 oz.	13.12	8.00	1.06	3.32	5.44	1.80	1.98	65.34	24293	"
One package contains 19 oz.	11.87	9.76	0.56	2.08	9.92	2.90	1.46	61.55	24294	Apparently wheat starch granules; much broken.
.....	14.68	9.84	1.96	3.36	3.76	1.25	1.52	63.63	24295	Wheat starch; possibly barley.

E. BELAND, INSPECTOR.

Fine grained but not so fine as flour; some grains yellowish coloured.	13.81	9.68	0.72	1.60	4.72	1.50	1.30	66.67	26043	Wheat starch; possibly barley.
In flakes.....	12.94	9.32	0.84	2.24	4.36	1.85	1.44	67.64	26046	" "
Rolled .....	12.85	9.40	0.76	1.44	3.96	2.20	1.60	67.79	26054	" "

RESULTS OF AN INSPECTION OF A COLLECTION  
DISTRICT OF QUEBEC—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Cents.		
1906.							
Nov. 14	Force	26055	George Larochel, 64 du Pont St., Que.	2 lbs.	15	Turcotte et frere, Que.	
" 14	Gusto	26056	" "	2 "	15	" "	
" 14	Orange Meat	26057	" "	2 "	15	" "	
" 14	Malta Vita	26058	" "	2 "	15	" "	
" 14	Quaker Oats	26059	" "	2 "	10	" "	
" 14	Saxon Oats	26060	" "	2 "	15	" "	
" 14	Gusto	26061	H. St. Cyr, 95 du Pont St., Que.	2 "	15	Whitehead & Turner, Que.	
" 14	Quaker Oats	26062	" "	2 "	10	" "	
" 14	Pilson's Oats	26063	" "	2 "	25	" "	

DISTRICT OF ST. HYACINTHE—

Nov. 7	Orange Meat	575	Godeau & Stebens, St. Jean, Que.	1 lb.	15	Frontenac Cereal Co., Kingston, Ont.	Marked as "Scientifically prepared. Every particle is perfectly cooked and easily digested."
" 8	Gusto	576	H. Paré, Granby, Que.	1 "	10	The Hoco Mills, Buffalo, N. Y.	Called "Crisp delicious food."
" 8	Vim	577	J. A. Menard, Farnham, Que.	13 ozs.	10	Malta Vita Pure Food Co., Toronto, Ont.	Marked "The good food; whole wheat, cooked and baked; ready to serve with hot or cold milk."
" 9	Cream of Wheat	578	A. H. Moore, Magog, Que.	20 "	20	Cream of Wheat Co., Minneapolis, Minn.	It is stated that "Cream of Wheat is not only one of the most delicate and delicious breakfast foods but in addition contains a very large percentage of gluten."

OF SAMPLES OF BREAKFAST FOODS—*Continued.*E. BELAND, INSPECTOR—*Continued.*

Additional Observations and Quotations from Label.	RESULTS OF ANALYSIS.								No. of Sample.	Remarks by Analyst. (Microscopical Examination).
	Total Proteoids, N. 6.25.	Moisture.	Petrole Ether Extract (Fat).	Alcohol Extract. (Sugars, &c.)	Water Extract. (De-atrines).	Crude Fibre.	Total Ash.	Starch approxi- mately by dif- ference.		
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
In flakes.....	13.43	8.40	1.40	2.72	10.21	2.70	1.64	59.47	26655	Apparently wheat starch; granules much broken.
".....	12.94	8.16	1.80	3.16	7.36	1.80	1.80	62.98	26656	"
".....	12.56	8.12	0.60	3.00	11.88	2.30	1.92	59.68	26657	Starch granules much broken; apparently wheat starch.
".....	13.12	7.08	0.88	2.80	11.40	2.45	2.12	60.15	26658	Starch granules much broken; wheat (or barley).
Flaked or rolled....	16.18	7.88	4.84	3.48	4.70	1.85	1.68	59.39	26659	Starch, oat.
".....	16.18	8.04	4.32	3.20	5.00	2.90	1.82	58.54	26660	Oat starch.
In flakes.....	12.93	8.56	1.60	0.92	1.36	2.00	1.60	61.03	26661	Starch granules much broken; probably wheat starch.
Rolled or flaked....	16.18	8.04	4.76	3.60	4.80	2.30	1.56	58.76	26662	Oat starch.
".....	16.09	7.60	5.72	3.28	4.52	1.85	1.72	59.31	26663	"

J. C. ROULEAU, INSPECTOR.

.....	13.56	8.96	0.32	2.76	11.80	2.80	1.80	58.00	575	Starch granules much broken; apparently wheat starch
.....	11.37	8.92	1.44	1.28	10.52	2.40	1.22	62.85	576	Starch granules much broken; probably wheat starch.
In flakes.....	11.87	9.04	0.56	3.12	10.56	2.30	1.52	61.03	577	Starch granules much broken; apparently wheat starch.
Finely granular, yellowish coloured.	12.25	9.84	0.00	0.00	6.44	0.40	0.60	70.47	578	Wheat starch.

## RESULTS OF AN INSPECTION OF A COLLECTION

DISTRICT OF ST. HYACINTHE

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Cents.		
1906.							
"	9 King's Food..	579	L. H. Olivier, Sherbrooke, Que.	2 1/2 lbs.	25	The Robert Greig Co., Ltd., Toronto.	Labelled as "The ideal wheat food. Choicest product from carefully selected Canadian wheat."
"	9 Malt Breakfast Food.	580	F. A. Bourque et Cie, Sherbrooke, Que.	2 pkgs.	30	The Malted Cereal Co., Burlington, Vt.	Called "The original and standard malt wheat cereal."
"	14 Blanco Cere..	571	A. Lamothé, St. Ours, Que.	17 ozs.	10	C. F. Blanke & Co., St. Louis.	
"	15 Petit John's Breakfast Food.	581	O. Lambert, Deriville, Que.	50 "	15	The American Cereal Co., Chicago, Ill.	
"	17 Egg-O-Sec..	582	Thos. Helbert, St. Hyacinthe, Que.	13 "	13	Battle Creek Breakfast Food Co., Quincy, Ill.	
"	17 Malta Vita...	591	E. Benoit, St. Hyacinthe, Que.	14 "	10	Malta Vita Pure Food Co., Battle Creek, Mich.	

## DISTRICT OF MONTREAL—

Nov.	7 Vim.....	31613	The S. Carsley Co., Ltd., Montreal.	2 pkgs..	20	Malta Vita Pure Food Co.	Each package weighed 14 oz. "Toasted wheat."
"	7 Orange Meat.	31614	"	1 "	15	Frontenac Cereal Co., Kingston, Ont.	Package weighed 1 1/2 lbs.
"	7 Canada Flakes	31615	"	1 "	15	Peterboro' Cereal Co., Peterboro', Ont.	Package weighed 1 1/2 lbs., made from Manitoba wheat.
"	7 Swiss Food	31616	"	1 "	15	P. McIntosh & Son, Toronto.	Package weighed 2 lbs. 10 ozs.
"	7 Gusto.....	31617	Howe, McIntyre & Co., Youville Place, Montreal.	1 "	08	Pawnee Cereal Co., Cedar Rapids, Iowa.	Weight of package 1 lb. A toy for children in each package.
"	7 Malta Vita	31618	"	1 "	08	Malta Vita Pure Food Co., Battle Creek, Mich.	Weight of package 14 ozs. "Combine the well known food values of wheat and the medicinal values of malt."

OF SAMPLES OF BREAKFAST FOODS—*Continued.*J. C. ROULEAU, INSPECTOR—*Continued.*

Additional Observations and Quotations from Label.	RESULTS OF ANALYSIS.								Remarks by Analyst. — (Microscopical Exami- nation).
	Total Proteids N x 6.25.	Moisture.	Petrol- ic Ether Extract (Fat).	Alcohol Extract. (Sugars, &c.)	Water Extract. (Dextrines).	Crude Fibre.	Total Ash.	Starch approxi- mately by dif- ference.	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
.....	12.81	8.88	0.96	1.68	5.92	2.00	1.84	65.91	579 Wheat starch.
Said to be wheat com- bined with Malti- diastase. Recom- mended to "cook thoroughly." One package contains 13 ozs.	14.43	8.08	1.08	6.56	8.72	1.65	1.24	58.24	580 Wheat or barley starch; probably a mixture of both.
.....	16.62	8.12	0.88	3.08	11.68	3.20	2.48	53.94	571 Wheat starch.
.....	12.56	9.76	0.60	0.92	7.32	2.45	1.60	64.79	581 Wheat or barley; prob- ably wheat.
.....	12.06	8.16	0.20	1.92	11.80	2.50	1.82	61.54	582 Starch granules much broken; apparently wheat starch.
.....	13.62	7.60	0.40	3.52	11.92	2.35	1.58	59.01	591 Wheat or barley starch; granules much broken.

J. J. COSTIGAN, INSPECTOR.

Flaked; "whole wheat steamed, cooked and baked." "Ready to serve."	13.56	7.60	0.08	3.96	11.92	2.35	2.00	58.53	31613 Starch granules much broken; apparently wheat starch.
Flaked; requires no cooking. "Ready to serve."	13.62	6.92	0.48	4.20	12.84	2.35	2.00	57.59	31614 " "
May be eaten in any condition.	11.87	7.20	0.20	2.88	11.52	2.25	2.56	61.52	31615 " "
Rolled; "Partly cooked" but never- theless cooking for 10 or 12 minutes re- commended.	13.12	9.20	1.04	2.32	10.50	1.80	1.44	60.58	31616 Wheat starch.
Wheat flakes." "Ready to serve."	13.37	8.56	0.40	2.40	11.20	2.00	1.60	60.47	31617 Starch granules much broken; apparently wheat starch.
Flaked; "Concen- trated, malted thor- oughly, cooked, pre- digested and al- ways ready."	14.00	7.16	0.40	2.64	11.28	2.00	1.60	60.92	31618 Wheat or barley starch

RESULTS OF AN INSPECTION OF A COLLECTION OF  
DISTRICT OF MONTREAL—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Cents.		
1906.							
Nov 7	Granose Flakes	31619	" "	1 "		08 Battle-Creek Health Food Co., Canadian Agency, London, Ont.	Weight of package 1 lb.
	7 Cream of Wheat.	of 31620	" "	1 "		16 Cream of Wheat Co.	Weight of package 2 lbs. "Made from Hard Spring Wheat."
" 7	Malt Breakfast Food.	31621	Bronlet & Guay, 177 University St., Montreal.	1 "		20 Malted Cereal Co., Burlington, Vt.	Weight of package 2 lbs. "The whole being of the finest gluten wheat of the North-west."
" 7	Ralston Breakfast Food.	31622	" "	1 "		20 Ralston Purina Co., St. Louis, Mo.	Weight of package 2 lbs.
" 7	Force Food	31623	P. Campbell & Co., 42 Victoria St., Montreal.	1 "		13 Force Food Co.	Weight 1 lb. A simple preparation of whole wheat and barley malt.
" 7	Egg O See	31624	" "	1 "		13 Manufactured at Quincy, Ill.	Weight 1 lb. A simple preparation of whole wheat and barley malt.

DISTRICT OF OTTAWA—

Nov 14	Quaker Oats	29391	George Thomas, George St., Ottawa	63 3 pkgs. 2 lbs.		30 American Cereal Co., Peterboro', Ont.	Marked — "Quaker rolled white oats. Quaker brand. Made in Canada."
" 14	Cream of Wheat.	of 29392	" "	3 "		60 Cream of Wheat Co., Minneapolis, Minn.	Said to be "made from choicest selected hard spring wheat."
" 14	Canada Flakes	29393	" "	3 "		45 Peterboro' Cereal Co.	Made in Canada from Manitoba wheat.
" 14	Egg O See	29394	" "	3 "		45 Quincy, Illinois, U.S.A.	Said to be "made from choicest wheat."

## SAMPLES OF BREAKFAST FOODS—Continued.

J. J. COSIGAT, INSPECTOR Continued.

## RESULTS OF ANALYSIS.

Additional Observations and Quotations from Label.	Total Proteids N x 6.25	Moisture.	Petrolic Ether Extract (Fat).	Alcohol Extract. (Sugars, &c.)	Water Extract (Dextrines).	Crude Fibr.	Total Ash.	Starch, approxi- mately by dif- ference.	No. of Sample.	Remarks by Analyst. (Microscopical Exami- nation.)
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
"Perfectly cooked; ready to eat at once."	11.00	7.20	0.16	4.56	13.92	2.60	2.28	58.28	31619	Starch granules all broken.
Fine grained; cooking recommended.	13.83	9.44	0.32	0.00	7.76	0.50	0.40	67.75	31620	Wheat starch.
"Thoroughly parched and sterilized; then scientifically combined with the natural digestive agent malt diastase."	15.31	6.76	0.60	6.72	10.08	1.10	1.24	58.19	31621	Wheat or barley starch; probably a mixture.
.....	15.87	9.52	1.00	2.80	7.17	1.45	1.36	60.83	31622	Wheat starch.
"The work of diges- tion already half done."	13.38	8.00	0.84	2.76	11.68	2.50	2.08	58.76	31623	Starch granules all broken.
Flaked; "Thoroughly steam cooked. Ready to use."	13.25	7.48	0.52	0.44	14.84	1.90	1.40	60.17	31624	Starch granules much broken; apparently wheat.

A. E. SANDERSON, INSPECTOR.

Cooking recommend- ed. 1 package con- tains 2 lbs.	16.87	7.48	6.16	2.16	6.08	1.70	1.74	57.81	29391	Oat starch.
Cooking required; 1 package contains 28 oz.	14.00	9.52	0.76	0.00	7.20	0.45	0.32	67.75	29392	Wheat starch.
"Elle est toujours préparée et tou- jours délicieuse."	13.12	7.84	0.40	4.36	11.96	2.35	1.80	58.17	29393	Starch granules much broken; apparently wheat.
"Pure healthful syrups are used." 1 package contains 11 ozs.	13.81	6.92	1.44	0.00	12.80	2.15	2.28	60.60	29394	" "

RESULTS OF AN INSPECTION OF A COLLECTION  
DISTRICT OF OTTAWA—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Cents.		
1900.							
Nov 15	Zest	32400	J. Currell, 86 Queen St. west, Ottawa.	3	"	30 Quaker Oats Co., Chicago.	Marked, "Ready to eat," and "made of the finest Pacific Coast white wheat" also "thoroughly cooked."
" 19	Beaver, Oats	32301	F. A. Scott, 292 Wellington St., Ottawa	1	"	25 P. McIntosh & Son, Toronto	Beaver rolled oats.
" 19	Quaker Puffed Rice.	32302	" " "	3	"	30 American Cereal Co., Chicago.	Quaker puffed rice; a prepared breakfast food.
" 19	Gusto	32303	" " "	3	"	45 Pawnee Cereal Co., Cedar Rapids, Iowa, U.S.A.	"Wheat food".

DISTRICT OF KINGSTON—

Nov. 6	Canada Flakes	31015	James McCulla, Montreal, St., Kingston	6 lbs.	"	45 Peterboro' Cereal Co.	Made from Manitoba wheat.
" 6	Egg-O-Ses	31018	P. A. Haffner, Montreal, St., Kingston	6	"	45 Manufactured at Quincy, Ill., U.S.A.	Made from choicest wheat.
" 6	Quaker Oats	31019	Vincent Oakley, Brock St., Kingston.	6	"	30 American Cereal Co., Peterboro'.	Rolled white oats.
" 7	Malt Breakfast Food.	31020	Wallbridge & Clarke, Bridge St., Bellville.	6	"	60 The Malted Cereal Co., Burlington, Vermont	All the virtues of malt; all the strength of wheat.
" 7	Quaker Corn Meal.	31021	" " "	6	"	30 Quaker Oats Co., Chicago.	(Yellow granulated) "It is made only of the crystal part of choice yellow corn."



## OF SAMPLES OF BREAKFAST FOODS—Continued.

A. E. SANDERSON, INSPECTOR *Continued.*

Additional Observations and Quotations from Label.	RESULTS OF ANALYSIS.									Remarks by Analyst (Microscopical Examination).
	Total Proteids N x 6.25.	Moisture.	Petrolic Ether Extract (Fat).	Alcohol Extract. (Sugar, &c.)	Water Extract. (Dextrin).	Crude Fiber.	Total Ash.	Starch approxi- mately by dif- ference.	No. of Sample.	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
1 package contains 7 ozs.	12.75	7.80	0.56	1.40	13.44	3.50	2.10	58.45	29400	Starch granules much broken; apparently wheat or barley.
Cooking recommend- ed.	16.87	6.52	5.64	1.96	5.85	1.95	1.76	59.42	32301	Oat starch.
"The wonderful in- vention of puffing rice cooks the starch granules so thoroughly that Quaker puffed rice is very largely a predigested food." 1 package contains 7 oz.	10.94	7.80	0.12	0.00	22.96	0.70	0.64	56.84	32302	Starch granules very much broken.
"Wheat flakes ready to serve." 1 pack- age contains 17 oz.	13.25	6.56	1.12	3.44	12.00	3.30	2.04	58.29	32303	Starch granules much broken; apparently wheat.
<b>J. HOGAN, INSPECTOR</b>										
"Serve cold or warm." 1 package contains 19½ ozs.	12.56	7.84	1.00	4.32	13.36	2.40	2.56	55.96	31015	Starch granules much broken.
"Good to eat at any time."	12.25	8.04	0.00	2.20	12.48	1.70	1.88	51.45	31018	Starch granules much broken; apparently wheat starch.
"....."	13.12	7.60	5.08	3.44	5.48	2.40	1.80	61.08	31019	Oat starch.
"....."	14.00	7.60	0.60	6.96	9.44	1.65	0.82	58.93	31020	Wheat or barley starch; probably a mixture.
1 package contains 2 lbs. 15 ozs.	8.12	10.01	0.48	1.60	4.88	1.60	0.20	73.08	31.21	Maize starch.

Analysis.

Proteids (brain, nerve and muscle food) ..	11.63
Carbohydrates (heat and flesh producers) ..	77.00
Fat .....	1.75
Lignose and cellulose .....	0.73
Ash (phosphates, lime, &c.) .....	1.05
Water .....	7.84

100.00

RESULTS OF AN INSPECTION OF A COLLECTION  
DISTRICT OF KINGSTON

Date of Collection	Nature of Sample	No. of Sample	Name and Address of Vendor	Cost		Name and Address of Manufacturer or Furnisher	From Inspector's Report
				Quantity	Cents		
1906							
Nov 7	Orange Meat	31022	Wallbridge & Clarke, 4 Bridge St., Belleville.	4 lbs.		45 Frontenac Cereal Co., Kingston.	
" 7	Toasted Corn Flakes	31023	O. S. Hicks, Front St., Belleville.	1 1/2 "		30 W. R. Kellogg, Battle Creek, Mich.	Used and recommended by the Battle Creek Sanitarium.
" 7	Canada Flakes	31024	" " "	4 "		45 Peterboro' Cereal Co.	Made from Manitoba wheat.

DISTRICT OF TORONTO

Nov. 14	Canada Flakes	30220	Peter Anderson, grocer, Guelph.	3 pkgs.		45 Peterboro' Cereal Co.	" From golden grain to package form no human hand touches Canada Flakes."
" 16	Cook's Flaked Rice	30229	Mielke & Co., Ltd., King st., Toronto.	1 "		20 American Rice Co., Matawan, N.J.	Made from Louisiana and Texas rice.
" 16	Quaker Puffed Rice	30230	" " "	1 "		10 American Cereal Co., Chicago, U.S.A.	" Only the very best grade of rice is used.
" 21	Hornby's Oat meal	30241	" " "	1 "		20 Hornby Co., N.Y.	Process: Drying in fire kilns, impurities removed, steam cooking, the kernels for several hours, thereby converting the starch into dextrine and drying by superheated air.
" 21	Malted Food	30242	" " "	1 "		18 Malted Cereal Co., Burlington, Vt.	
" 22	Apitozo	30244	Midland Bros., 1283 King st., Toronto.	1 cocontains 18 oz.		45 American Cereal Co., Chicago, U.S.	Claimed to be made of "grain combined with vegetable or plant iron."

OF SAMPLES OF BREAKFAST FOODS—*Continued.*J. HOGAN, INSPECTOR *Continued.*

## RESULTS OF ANALYSIS.

Additional Observations and Quotations from Label.	Total Proteids	Moisture	Petroleum Ether Extract (Fat)	Alcohol Extract. (Sugars, &c.)	Water Extract. (Dextrines)	Crude Fibre.	Total Ash.	Starch approxi- mately by dif- ference.	No. of Sample.	Remarks by Analyst (Microscopical Exami- nation).
	N. 6.25.									
"Requires no cook- ing; all ready to eat."	10.94	7.72	0.24	5.60	11.28	2.35	2.28	59.79	31022	Starch granules much broken; probably wheat.
Finely flaked. One package contains 4½ ozs.	7.88	6.08	0.64	5.00	17.48	2.60	1.16	59.16	31023	Starch granules much broken; apparently maize starch.
"The wheat is thor- oughly washed and scientifically prepared by the latest improved machin- ery."	10.06	7.72	1.00	2.68	12.20	2.25	1.96	62.13	31024	Starch granules very much broken; prob- ably wheat.

## T. AIDH, ACTING INSPECTOR.

All of the wheat toasted, ready to eat. 1 package con- tains 7 ozs.	13.12	8.56	0.32	2.92	11.40	1.60	1.92	60.16	30220	Starch granules very much broken; prob- ably wheat.
"Don't cook" .....	11.62	8.84	0.00	0.00	6.24	0.75	0.40	72.15	30229	Starch granules very much broken; prob- ably rice.
"Thoroughly cooked and sterilized."	12.37	8.80	0.00	0.00	14.80	0.75	0.20	63.08	30230	"
"Steam cooked," but nevertheless direc- tions given for cooking.	16.62	7.80	6.00	2.20	1.42	2.40	1.40	62.16	30241	Oat starch.
	12.37	7.28	0.52	7.96	9.80	1.20	1.06	59.81	30242	Wheat or barley; prob- ably a mixture.
	15.31	7.84	0.00	13.52	13.44	1.50	2.02	46.37	30244	Starch granules very much broken. The analysis on label can- not be sustained.

## Analysis:—

Fat	0.99
Protein	14.00
Dextrinized carbohydrates and cellulose	54.67
Grape sugar	16.00
Ash	1.67
Moisture	7.77

RESULTS OF AN INSPECTION OF A COLLECTION OF  
DISTRICT OF TORONTO—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Per Cent.		
1906.							
	22 Norka	30245	Simpson & Co., Ltd., Yonge st., Toronto	1 pkg. containing 10 oz		15 Norka Food Co., Battle Creek, U.S.	Labelled as "Cooked and malted oat food." "The Twentieth Century Food"
"	22 Buckwheat Flour.	30246	" " "	1 " "		10 F. F. Dalley & Co., Hamilton.	"Self-raising Royal Hygienic flour."
"	22 Malt-Break fast Food.	30247	" " "	1 " "		15 H. P. Eckart, wholesale grocer, Toronto.	"The choicest whole wheat scientifically combined with the best barley malt."
"	22 Hecker's Flax	30248	T. Eaton & Co., Yonge st., Toronto.	3 " "		30 Hecker, Jones & Jewell Milling Co., N.Y.	Labelled as made from the heart of selected wheat.

DISTRICT OF LONDON—

Nov.	2 Toy Guster	30196	Thomas Langlois, grocer, Windsor, Ont.	1 " "		10 J. F. Smith, wholesale grocer, London, Ont.	Wheat flakes "For health, strength and good cheer."
"	3 Hecker's Honey	30199	Hugh Malcomson, grocer, Chatham, Ont.	1 " "		12 Hecker, Jones & Jewell Co., N.Y.	
"	3 Grape Nuts	30202	Edward O'Flaherty, grocer, Stratford, Ont.	3 " "		45 Postum Cereal Co., Battle Creek, Mich.	Said to be made by special treatment of wheat and Farley, dextrose and grape sugar.
"	3 Cereta Wheat Food.	30203	Walsh Bros., grocer, Stratford, Ont.	3 " " contains 21 ozs.		30 Manufacturers of Quaker Oats.	Labelled as "milled from the very choicest part of the wheat."
"	5 Quaker Puffed Rice.	30204	Williams & Purcell, Seaforth, Ont.	3 pkgs.		45 The American Cereal Co., Chicago.	Patented Aug., 1902; Aug. and Sept., 1904.
"	5 Pancake Flour	30205	A. G. Anlt, Seaforth, Ont.	3 " "		45 Davis Milling Co., St. Joseph, U.S.	Labelled "Aunt Jemimas Pancake flour for griddle cakes, muffins and gems. Made of wheat, corn and rice."
"	5 Malta Vita	30206	Henry Levins, Seaforth, Ont.	3 " "		30 Pure Food Co., Toronto.	Labelled "Concentrated malted food."

## SAMPLES OF BREAKFAST FOODS—Continued.

T. KIDD, ACTING INSPECTOR—Continued.

Additional Observations and Quotations from Label.	RESULTS OF ANALYSIS.								No. of Sample.	Remarks by Analyst. (Microscopical Exami- nation).
	Total Proteids, N x 6.25.	Moisture.	Petrolic Ether Extract (Fat).	Alcohol Extract. (Sugars, &c.)	Water Extract. (Dextrines).	Crude Fibre.	Total Ash.	Starch approxi- mately by dif- ference.		
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
Ready to eat; heat before serving."	14.00	6.24	2.16	6.16	13.68	1.00	2.26	54.50	30245	"
"Always ready for immediate use."	7.21	9.60	0.40	2.56	6.88	1.00	4.28	67.97	30246	Buckwheat starch.
.....	11.37	7.68	0.08	6.96	9.24	1.50	1.48	61.65	30217	Wheat or barley starch; probably a mixture
.....	11.37	9.60	0.00	0.00	4.56	0.50	0.70	73.27	30248	Wheat starch.

## T. KIDD, INSPECTOR.

Ready to serve.....	10.50	7.96	0.84	2.00	10.72	1.65	1.42	64.91	30196	Starch granules much broken; probably wheat starch.
Directions given for cooking.	8.75	10.00	0.84	0.80	5.00	1.00	0.20	73.41	30199	Maize starch.
"Don't try to cook this food. It is per- fectly cooked at the factory. Serve dry just as it comes from the package."	10.94	4.72	0.40	14.96	31.84	1.70	1.06	34.38	30202	Starch granules very much broken.
Directions given for cooking.	10.50	9.44	0.36	0.00	5.48	1.05	0.46	72.71	30203	Wheat starch
.....	11.35	9.20	0.00	0.00	17.12	0.60	0.40	61.33	30204	Starch granules much broken; probably rice.
"Always ready for the table, no yeast, no salt."	10.50	8.56	0.16	4.00	7.28	2.40	3.20	63.90	30205	Starch granules; ap- parently wheat, maize and rice.
"Ready to eat; thor- oughly cooked, pre- digested."	11.81	8.52	0.88	3.08	12.84	2.00	1.76	59.11	30206	Starch granules much broken; apparently wheat or barley.

RESULTS OF AN INSPECTION OF A COLLECTION OF  
DISTRICT OF LONDON—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher.	From Inspector's Report.
				Quantity.	Cents.		
1906.							
Nov. 6	Force	30207	Charles Andrew, Seaforth, Ont.	15 pkgs.		Force Food Co., Buffalo, N. Y.	Labelled "The natural food for creating power, repairing waste, maintaining energy."

DISTRICT OF MANITOBA

Nov. 8	Malta Vita	25911	Coates & Co., Brandon, Man.	1 lb.		Malta Vita Pure Food Co., Battle Creek, Mich.	
"	12 Quaker Oats	25915	A. Hendry, Winnipeg, Man.	2 "		The American Cereal Co., Peterboro', Ont.	"
"	12 Puffed Rice	25916	Sutherland Bros., Winnipeg, Man.	1 "		The American Cereal Co., Chicago.	"
"	12 Canada Flakes	25917	Gillies & Frances, Winnipeg, Man.	1 "		Peterboro' Cereal Co., Peterboro', Ont.	"
"	16 Petit John's Breakfast Food	25918	Kennedy & Seoney, Winnipeg, Man.	1 "		The American Cereal Co., Chicago.	"
"	16 Grape Nut	25919	D. A. Ritchie, Winnipeg, Man.	1 "		Postum Cereal Co., Battle Creek, Mich.	"
"	16 Malt Food	25920	J. A. McKerchar, Winnipeg, Man.	1 "		Malted Cereal Co., Montreal.	"
"	9 Puffed Rice	25914	C. S. B. Burley, Portage la Prairie.	1 "		The American Cereal Co., Chicago.	"

DISTRICT OF BRITISH COLUMBIA

Nov. 14	Force	32009	E. H. McMillan, Grayville St., Vancouver, B. C.	3 pkgs.		The Force Food Co., Buffalo, N. Y., U. S. A.	It is stated that in "Force, the whole of the wheat is scientifically combined with barley malt."
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SAMPLES OF BREAKFAST FOODS -*Concluded.*T. KIDD, INSPECTOR -*Continued.*

Additional Observations and Quotations from Label.	RESULTS OF ANALYSIS.								Remarks by Analyst. (Microscopical Ex- amination).
	Total Proteids N 6.25.	Moisture.	Petroleic Ether Extract (Fat).	Alcohol Extract (Sugars &c.)	Water Extract. (Dextrines).	Crude Fibre.	Total Ash.	Starch approx- imately by dif- ference.	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
"Serve cold; no cook- ing required; toast before serving, no sugar required."	10.94	8.44	0.96	0.84	41.64	2.48	1.52	63.18	30207 Starch granules much broken; apparently wheat.

W. M. CONKLIN, INSPECTOR.

.....	10.50	7.44	0.00	1.80	14.40	1.65	1.62	62.50	25911 Starch granules very much broken.
.....	14.00	7.65	5.20	1.80	5.16	1.95	1.28	62.96	25915 Oat starch.
.....	8.31	8.24	0.00	0.00	20.80	0.75	1.00	60.90	25916 Starch granules all broken.
.....	11.37	7.04	0.32	1.92	13.44	1.50	2.00	62.41	25917 Starch granules very much broken.
.....	9.62	7.68	0.48	2.40	7.72	1.25	1.42	59.43	25918 Wheat or barley starch; probably wheat.
.....	11.73	5.76	0.40	16.48	27.76	0.85	1.26	35.76	25919 Starch granules much broken.
.....	11.73	7.24	0.00	8.08	8.72	0.50	1.64	62.09	25920 Wheat or barley; prob- ably a mixture of both.
.....	8.75	8.02	0.12	0.00	16.04	1.45	0.84	64.78	25914 Starch granules much broken; a few gran- ules characteristic of rice.

-E. B. PARKINSON, INSPECTOR.

"Force is food with the digestible parts left out." "The comparative digestibility with other is Force 15 to 30 mins., oats, rolled 30 to 60 mins., wheat, roll- ed 1 to 3 hrs., hom- iny (gran.) 1 to 3 hrs."	11.37	8.48	0.48	3.72	11.28	1.60	2.08	60.99	32009 Starch granules much broken.
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RESULTS OF AN INSPECTION OF A COLLECTION  
DISTRICT OF BRITISH COLUMBIA

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		From Inspector's Report.	
				Quantity.	Cents.		
1906.							
"	9 Malta Ceres...	28188	W. H. Walsh, Seymour St., Vancouver, B.C.	3	15	The Twin City Nut Food Co., Minneapolis, St. Paul, Minnesota, U.S.A.	This is said to be "a scientific combination of thoroughly malted and cooked cereals."
"	9 Orange Meat.	28189	Webster Bros., Granville St., Vancouver, B.C.	3	40	The Frontenac Cereal Co., Ltd., Kingston, Ont.	It is stated that "Orange Meat is scientifically prepared, thoroughly cooked and absolutely digestible."
"	10 Grape Nuts...	28190	S. F. McCready, Granville St., Vancouver, B.C.	3	45	The Postum Cereal Co., Ltd., Battle Creek, Mich., U.S.	This is said to be fully cooked, pre-digested dextrose and grape sugar, made by special treatment of entire wheat and barley."
"	10 Breakfast Food	28191	John G. Kirkwood, Granville St., Vancouver, B.C.	3	15	The Lake of the Woods Milling Co., Kewatin	
"	10 Farina . . . .	28193	Hudson's Bay Co., re-tail, Granville St., Vancouver, B.C.	3	40	Sperry Flour Co., 114, Sacramento St., San Francisco.	Stated to be particularly adapted for children."
"	12 Malted Cereal.	28195	Kelly, Douglas Co., Ltd., Water St., Vancouver, B.C.	3	45	Portland Sanitarium Food Co., Portland, Oregon.	It is stated that this food "is subjected to a high degree of heat, and contains elements which produce a natural pre-digested food."
"	12 Breakfast Food	28196	The W. H. Malkin Co., Ltd., Water St., Vancouver, B.C.	3	55	Acme Mills Co., Portland, Oregon, for Purina Mills, St. Louis, Mo.	"Made from selected wheat, rich in gluten."



OF SAMPLES OF BREAKFAST FOODS—*Continued.*—E. B. PARKINSON, INSPECTOR—*Continued.*

Additional Observations and Quotations from Label.	RESULTS OF ANALYSIS.								No. of Sample.	Remarks by Analyst. (Microscopical Examinations.)
	Total Proteins N x 6.25.	Moisture.	Petrolic Ether Extract (Fat).	Alcohol Extract. (Sugars, &c.)	Water Extract (Dextrines).	Crude Fibre.	Total Ash.	Starch approxi- mately by dif- ference.		
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
Labelled "Do not cook."	14.00	7.44	0.21	6.48	18.72	0.80	1.30	51.02	28188	Starch granules much broken.
"Requires no cooking all ready to eat."	11.37	8.00	0.28	7.01	12.16	1.50	1.80	57.85	28189	Starch granules much broken; apparently wheat starch.
"The system will absorb a greater amount of nourishment from 1 lb. grape nuts than from 10 lbs meat, wheat, oats or bread."	11.67	5.00	0.00	15.68	27.84	1.00	1.42	37.39	28190	Starch granules much broken.
.....	11.06	9.84	0.00	0.16	5.56	0.60	1.08	71.70	28191	Wheat starch.
Directions given for cooking.	8.31	9.00	0.00	0.00	6.40	1.15	0.68	74.46	28193	Wheat starch.
It is so perfectly prepared that it needs no further cooking and can be eaten dry.	9.17	6.72	0.64	10.40	20.00	0.35	1.00	51.72	28195	Wheat or barley.
Directions given for cooking.	13.25	9.44	0.00	2.40	6.00	1.25	1.28	66.38	28196	Wheat starch.

