

therefore, sources of energy. Consequently, the total energy value of a food may be determined by measuring the amount of heat given off when a definite weight of the food is burned. This energy value is conveniently stated in terms of heat, the Calorie,* or unit of heat, being used for this purpose. The number of Calories of heat a gram of each food is capable of producing, if fully burned, is given in the last column of Table No. 1. As it was not convenient for us to determine the actual fuel values, the figures were obtained by calculating them on the basis proposed by Dr. H. W. Wiley.†

It is very difficult to form a correct comparative estimate of the nutritive value of the breakfast foods from the percentage composition alone. For this reason we sometimes value the foods on the basis of their ability to produce heat, and, if we assume that they are fed in a properly arranged diet, the fuel values indicate fairly well the comparative nutritive values of the total food.

With the foregoing facts in mind regarding the value of the different nutrients, we now turn to the table of composition:

TABLE NO. 1—PERCENTAGE COMPOSITION OF SOME BREAKFAST FOODS.

Sample Number.	Foods and Manufacturers.	Water.	Crude Protein.	Crude Fat.	Nitrogen Free Extract.	Crude Fibre.	Ash.	Heat of Combustion per gram Calories.
OAT PRODUCTS								
<i>Granulated Oatmeal from:</i>								
10	D. R. Ross, Embro.....	7.31	13.31	6.30	69.16	1.42	1.50	4.306
14	Martin Bros., Mount Forest...	7.51	12.43	6.81	70.29	.94	1.52	4.282
40	Martin Bros., Mount Forest...	7.56	12.77	6.81	70.22	1.49	1.65	4.277
18	Am. Cereal Co., Peterboro...	9.10	12.26	7.29	68.53	1.32	1.47	4.262
27	Flavelle Milling Co., Lindsay.	7.68	12.62	6.29	70.68	1.36	1.37	4.283
<i>Standard Oatmeal from:</i>								
35	Martin Bros., Mount Forest...	7.35	13.17	7.55	69.19	1.04	1.72	4.412
39	Martin Bros., Mount Forest...	7.84	13.44	6.95	68.36	1.56	1.85	4.306
24	Am. Cereal Co., Peterboro...	8.53	13.30	6.49	68.61	1.63	1.41	4.268
20	D. & S. Am. Cereal Co., Peterboro.....	9.33	12.80	7.40	67.98	1.45	1.40	4.257
13	D. R. Ross, Embro.....	7.95	15.28	5.77	66.69	2.01	2.30	4.254
28	Flavelle Milling Co., Lindsay.	6.71	12.21	7.61	70.62	1.16	1.68	4.371

*A Calorie represents the amount of heat required to raise the temperature of 1,000 grams of water 1° C.

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