

COMPOSITION of FOODS used in Far Eastern countries



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COMPOSITION OF FOODS USED IN FAR EASTERN COUNTRIES

by

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COMPOSITION OF FOODS USED IN FAR EASTERN COUNTRIES 1/

This publication brings together data on refuse, food energy, proximate composition, three minerals, and five vitamins in many foods commonly consumed in countries of the Far East. It has been prepared in response to repeated requests from administrators wanting the data for estimating adequacy of food supplies, from research workers engaged in making dietary surveys or related studies, and from nutritionists, teachers, dietitians, doctors, agricultural missionaries, and others who are concerned with the nutritive values of indigenous and imported food supplies.

SOURCES OF DATA

The food composition values shown in this publication (table 3, p. 10) were based in a large measure on original studies made in the Far East and published in scientific journals. When this information by itself was insufficient, supplementary sources were used. For plant foods, analyses made in countries other than those in the Far Eastern area were used when information indicated that the products belonged to the same genera and species as those produced in the Far East and when the variety was one used in one or more Far Eastern countries.

Data in the literature were evaluated on the basis of identity and treatment of samples and analytical procedure used. From the array of figures an average value based on acceptable data for each nutrient in every item has been derived for this publication. The usefulness of numerous studies is greatly limited because descriptions of samples are inadequate both with regard to the scientific names and the kind and extent of processing or other treatment. A great deal of confusion exists in the literature because the samples are not fully identified; investigators often report only the common name used locally instead of the scientific name. As a result, composition data from numerous studies could not be included in obtaining values for this publication. Also the part of the product used for analysis is not adequately described in many reports. In the case of vegetables, there may be considerable difference between an analysis for leaves and stems and one for leaves by themselves, and both may be edible. The kind and extent of milling of grains also make very important differences in the composition of grain products. Information in the literature on the composition of fish is particularly inadequate. The number of species of fish used in any one country is large and the systematic classification unsatisfactory. In this publication data for only a few kinds are given as typical of the range in composition. Scientific names have not been given inasmuch as the data necessarily were based largely on American species and it is believed that the scientific names would not generally apply to Far Eastern species. However, the data on composition may be applied to closely related kinds until a more satisfactory classification can be developed. Such application must be based on a general knowledge of the probable fat content of the species to which it is made.

1/ This publication supersedes:
The Nutritive Value of Chinese Fruits and Vegetables, 1943, 24 pp.,
Mimeographed.
The Nutrient Values Suggested for Far Eastern Foods, 1945, 16 pp.,
Mimeographed.

For a few important food items sufficient direct information on which to base composition values could not be located and figures were imputed or calculated from another food. Vitamin values and reliable iron data are particularly scarce, and many of the data given may require considerable revision in the future.

References used in preparing this publication are listed on page 44.

NOTES ON NUTRIENTS

Food Energy

The procedure recommended in 1947 by the Food and Agricultural Organization Committee on Calorie Conversion Factors and Food Composition Tables was followed in calculating the calories shown in this publication. Calorie values in the recent publications (187, 312, 326) ^{2/} of the Food and Agricultural Organization and also of the United States Government were calculated by this same procedure. The principle consists of:

- (1) Determining the amounts of the three classes of organic matter present in a particular food that are available to the body for energy. These amounts are obtained by applying coefficients of apparent digestibility that have been determined for that food or food group to the total amount of the energy yielding nutrient in the food;
- (2) Applying the appropriate heat of combustion figures to the amounts of available nutrients. For fats and carbohydrates, heats of combustion determined in a bomb calorimeter have been accepted generally for direct application, but for protein it has been customary to make a deduction of 1.25 calories per gram of digested (or available) protein to allow for organic products normally excreted in the urine.

The steps in the calculation of energy values according to this principle can be shortened by the use of calorie factors that may be applied directly to composition data of a food. These calorie factors are the products of the heats of combustion (adjusted in the case of protein for urinary losses of incompletely burned nitrogenous material) and the coefficients of apparent digestibility. The factors used for calorie calculation in table 3 are listed in table 1.

The determination of suitable coefficients of digestibility to use in making energy estimates presents many perplexing problems, particularly since these coefficients probably can be influenced by many conditions such as the nutritional status of the subjects, the level of nutrients in the diet, the proportion of nutrients furnished by the test food, and other experimental conditions. For example, the question may be raised as to whether the digestibility of the nutrients in a food such as rice is the same for the Oriental who regularly consumes it in large quantities as for a Westerner who serves as a subject for a few days in a dietary experiment.

^{2/} Numbers in parentheses refer to Literature References, page 44.

The coefficients of digestibility used in the factors shown in table 1 were based on studies made with human subjects, most of them with fairly young men living in Europe and the United States of America, and on relatively fewer with subjects in the Orient.

The method by which these factors have been derived is considered satisfactory in view of information available, but changes are to be expected in the factors themselves as research provides additional data on digestibility and a better basis for evaluating such studies in light of the varying dietary patterns.

Protein

The protein values were calculated in the usual manner—multiplying total nitrogen by a factor. As the majority of the proteins in foods contain 16 percent nitrogen, the conversion factor for most foods is 6.25. For a number of foods for which 6.25, the factor commonly used, is not suitable, specific nitrogen conversion factors (144) were used as follows:

	<u>Factor for converting N to Protein</u>
Cereal products:	
Barley, oats, rye	5.83
Rice	5.95
Wheat flour, refined	5.70
Wheat and millets, whole kernel	5.83
Oilseeds and nuts:	
Almonds	5.18
Peanuts	5.46
Soybeans	5.71
Milk	6.38

The assumption made in using either these factors or 6.25 is that all the nitrogen present is protein nitrogen. Also it is assumed that for all other foods than those specified, 6.25 is a suitable factor. Neither assumption is entirely correct, but this procedure has been followed for several years and has been accepted generally for use until better figures are available.

Carbohydrate

The values for carbohydrate in table 3 are for the so-called "total carbohydrate by difference," obtained by subtracting from 100 the sum of the percentages of water, ash, protein (total N x factor) and fat (ether-soluble extract). They do not represent carbohydrate in the strict chemical sense. Included in the figures, in addition to the sugars and starches which the body is known to use almost completely, are fiber and pentosans which the body uses less completely, if at all, and still other substances such as organic acids which, chemically speaking, are not carbohydrate. The calorie factors shown in table 1 under carbohydrate apply to this total carbohydrate by difference, that is, to figures such as those shown in table 3.

Table 1.--Specific Physiological Energy Factors for Calculating the Calorie Value of Foods

Food or Food Group	Physiological energy factors to be applied to-		
	Protein Cal./gm.	Fat Cal./gm.	Total carbohydrate (by difference) Cal./gm.
Cereals and grain products:			
Barley, light	3.55	8.37	3.95
Buckwheat, lightly milled	3.37	8.37	3.78
Buckwheat, highly milled	3.55	8.37	3.95
Maize, meal, whole ground:			
Unbolted	2.73	8.37	4.03
Bolted	3.10	8.37	4.10
Millet, whole	(.91)	8.37	(4.03)
Oats or oatmeal	3.55	8.37	4.07
Rice, brown	3.41	8.37	4.12
Rice, undermilled	3.73	8.37	4.16
Rice, highly milled	3.82	8.37	4.16
Rye, whole grain or meal	3.05	8.37	3.86
Rye flour, dark	2.96	8.37	3.82
Rye flour, medium	3.23	8.37	3.99
Rye flour, light	3.46	8.37	4.07
Sorghum or Kaoliang .....	.91	8.37	4.03
Starch	3.87	8.37	4.12
Wheat, 97-100 percent extraction ..	3.59	8.37	3.78
Wheat, 93-96 percent extraction ...	3.69	8.37	3.86
Wheat, 85-92 percent extraction ...	3.78	8.37	3.95
Wheat, 75-84 percent extraction ...	3.91	8.37	4.07
Wheat, 70-74 percent extraction ...	4.05	8.37	4.12
Other refined cereals	3.87	8.37	4.12
Fruits; vegetables:			
Lemons and limes	3.36	8.37	2.70
Other fruits	3.36	8.37	3.60
Beans and peas, immature, shelled..	3.47	8.37	4.07
Mushrooms	2.43	8.37	1.24
Potatoes, other starchy roots	2.74	8.37	4.03
Other underground crops ^{1/}	2.74	8.37	3.84
Other vegetables	2.44	8.37	3.57
Tomatoes, tomato products	3.36	8.37	3.60
Legumes, seeds and nuts:			
Soybeans and soybean products	3.47	8.37	1.68
Other legumes; seeds and nuts	3.47	8.37	4.07
Meat; poultry; fish			
Eggs	4.27	9.02	2/
Milk and milk products	4.36	9.02	3.68
Oils and fats:			
Butter	4.27	8.79	3.87
Other animal fats	--	9.02	--
Margarine	4.27	8.84	3.87
Other vegetable oils and fats	--	8.84	--
Sugars and sirups:			
Cane sugar; molasses; sirups	--	--	3.87
Honey	3.36	--	3.68
Miscellaneous:			
Chocolate, cocoa	1.83	8.37	1.33
Vinegar	--	--	2.45

^{1/} Vegetables such as beets, carrots, onions, parsnips, radishes.
^{2/} Brain, heart, kidney, liver, 3.87 calories per gram; tongue, shellfish, fish products, 4.11 calories per gram.

Minerals

Calcium data shown in table 3 represent the total amount of calcium present in the edible portion of the product. The question of how to treat the calcium content of foods containing relatively large amounts of oxalic acid remains debatable. The possibility that all of the calcium in some foods may not be available because of the presence of oxalic acid is noted in a footnote, but no account is taken of excess oxalic acid in foods which may make unavailable part of the calcium in other foods. When direct analytical data on calcium content of meat were inadequate, values were calculated from protein content, using 58 milligrams of calcium per 100 grams protein as suggested by Sherman (277).

Phosphorus data are for the total amount of phosphorus present. No deduction has been made for phosphorus bound in some relatively unavailable form such as phytin. When necessary, phosphorus in meat was calculated from correlations based on data in the literature relating phosphorus to protein.

Iron likewise applies to total iron in the edible portion rather than to available iron, but precautions were taken to eliminate data that showed evidence of contamination of sample. If suitable data from other sources were not available, the iron content of meat was calculated by use of the factor suggested by Sherman, 15.0 milligrams per 100 grams of meat protein.

Mineral data shown for fish were based on actual data reported in the literature for individual kinds, however, and not on generalized factors related to protein as is commonly done.

Vitamins

Vitamin A values in table 3 are expressed in International Units. Values expressed in the literature as micrograms of carotene were converted to International Units of vitamin A on the basis that 0.6 micrograms of beta carotene and 1.2 micrograms of other carotenes having vitamin A activity are equivalent to 1 International Unit of vitamin A. These values were based in part on biological assay and in part on physical-chemical determinations of vitamin A or pro-vitamin A. The physiological equivalence of vitamin A and of the carotenes having vitamin A activity has posed difficult questions. For practical use in evaluating human diets the question of the availability of the carotenes from different sources must be taken into consideration. Experimental work with laboratory animals and human subjects has shown that the carotene in some foods is nearly all available and in others only one-third or less is available. For example, present indications are that only about a fourth to a third of the carotene present in cooked carrots and cooked sweetpotatoes may be utilized by experimental animals, and about two-thirds of the carotene in cooked kale, a leafy green vegetable. Further research will make possible revision of present vitamin A figures to take into account utilization of carotene.

Values for three of the B vitamins, thiamine, riboflavin, and niacin, reported in the literature represent various degrees of progress in the development of assay procedures. For many foods included in table 3, very few or no analyses for these vitamins have been reported. Revisions can be expected in the figures shown as improved methods are developed for freeing bound forms, especially of riboflavin, and as further data accrue on the quantities in foods.

Because data on the amounts of the B-vitamins present in many of the meats produced in the Far East were inadequate, vitamin factors developed on a limited amount of information for meats in the United States were used to derive the figures for this publication. The vitamin content was calculated from the protein by applying the following factors:

Meat:	<u>Content per 100 grams protein</u>		
	Thiamine	Riboflavin	Niacin
	Mg.	Mg.	Mg.
Beef	0.43	0.89	24.0
Lamb and mutton .....	.89	1.24	28.9
Pork, cured	4.13	1.11	23.4
Pork, fresh	4.86	1.17	26.0
Veal, fresh .....	.73	1.33	33.5

Ascorbic acid values reported here were based for the most part on determinations of reduced ascorbic acid, because this is the form reported by most workers and the form in which nearly all of this vitamin occurs in fresh products.

CONVERSION FACTORS FOR COMMON UNITS OF WEIGHT

Data on the composition of foods in table 3 have been shown in units of the metric system because it is the system used rather widely in the Far East and also because the figures can be translated quickly into terms of percentage, should that be desirable. Data expressed as grams per 100 grams of food may be read directly as percent and data expressed as milligrams per 100 grams can be read as percent by moving the decimal three places to the left.

At times it is necessary to convert from local weight units to either the metric system or pounds and ounces, or vice versa. Conversion factors for weights that might be encountered in dietary studies are given in table 2.

COMMENTS ON COMPOSITION DATA AND TERMS USED

The foods in table 3 are arranged alphabetically within eight groups. The grouping was made from a practical standpoint of customary usage rather than a botanical classification. Thus arrowroot flour and sago meal, although products of tubers, are included with cereals, and tomatoes and soybean curd with vegetables.

Both the scientific and common names for plant products have been shown to aid the user in identification of items. Since common names are used very loosely within a country and translations based on such names may be misleading, the scientific name is recommended as the basis for selecting items from this table. The botanical classification of the products on which composition studies have been reported in the literature usually has been made by a trained botanist or agronomist and the scientific name may be expected to provide a better basis for identification than the common name. Unfortunately there is not complete

Table 2.--Conversion Factors for Weights Used in Far Eastern Countries

Unit of weight	Unit	Metric Equivalent	United States Equivalent	Country in which used
Arroba (25 libras) Old Spanish	1.00	11.50 kg.	25.35 lb.	Philippine Islands
	.09	1.00 kg.	2.20 lb.	
Catty (16 liang) Old Chinese system	1.00	604.8 gm.	1.33 lb.	China, Hong Kong, Malaya States <u>1</u> / ₂ , Manchuria
	.75	453.6 gm.	1.00 lb.	
	1.65	1.00 kg.	2.20 lb.	
Catty	1.00	617.6 gm.	1.36 lb.	Indonesia
	1.62	1.00 kg.	2.20 lb.	
Catty	1.00	600.0 gm.	1.32 lb.	Thailand
	1.67	1.00 kg.	2.20 lb.	
Catty, shih, new Chinese system (Shih chin)	1.00	500.0 gm.	1.10 lb.	China
	2.00	1.00 kg.	2.20 lb.	
Hundredweight, long	1.00	50.80 kg.	112.0 lb.	Burma, Malaya States <u>1</u> / ₂
Hundredweight, short	1.00	45.36 kg.	100.00 lb.	Burma, Malaya States <u>1</u> / ₂
Kin or catty (160 momme)	1.00	600.0 gm.	1.32 lb.	Japan, Formosa, Korea
	1.67	1.00 kg.	2.20 lb.	
Kwan (1,000 momme)	1.00	3.75 kg.	8.27 lb.	Japan, Formosa, Korea
	.27	1.00 kg.	2.20 lb.	
Liang, Old Chinese system	1.00	37.8 gm.	1.33 oz.	China, Hong Kong, Malaya States <u>1</u> / ₂ , Manchuria
Libra (16 onzas) Old Spanish	1.00	460.0 gm.	1.01 lb.	Philippine Islands
	2.17	1.00 kg.	2.20 lb.	
Maund (40 seers)	1.00	37.32 kg.	82.28 lb.	India and Pakistan
	.03	1.00 kg.	2.20 lb.	
Momme	1.00	3.8 gm.	.13 oz.	Japan, Formosa, Korea
	26.67	100.0 gm.	3.53 oz.	
Onza, Old Spanish	1.00	28.75 gm.	1.01 oz.	Philippine Islands
	3.48	100.0 gm.	3.53 oz.	
Picul (100 catties), Old Chinese system	1.00	60.48 kg.	133.33 lb.	China, Hong Kong, Malaya States <u>1</u> / ₂ , Manchuria
Picul	1.00	61.76 kg.	136.16 lb.	Indonesia
	1.62	100.0 kg.	220.46 lb.	

Table 2.--Conversion Factors for Weights Used in Far Eastern Countries--Continued

Unit of weight	Unit	Metric Equivalent	United States Equivalent	Country in which used
Picul	1.00	60.00 kg.	132.28 lb.	Thailand, Japan
	1.67	100.00 kg.	220.46 lb.	
Picul, shih, new Chinese system (Shih tan)	1.00	50.00 kg.	110.23 lb.	China
	2.00	100.00 kg.	220.46 lb.	
Quintal, Metric	1.00	100.00 kg.	220.46 lb.	Viet Nam, Laos, Cambodia
Quintal, Old Spanish (4 arrobas)	1.00	46.00 kg.	101.41 lb.	Philippine Islands
	.22	1.00 kg.	2.20 lb.	
Seer (80 tolas)	1.00	933.1 gm.	2.06 lb.	India and Pakistan
	1.07	1.00 kg.	2.20 lb.	
Stone, legal (U.K.)	1.00	6.35 kg.	14.00 lb.	Burma, Malaya States ^{1/}
	.16	1.00 kg.	2.20 lb.	
Tahil (Tael)	1.00	37.8 gm.	1.33 oz.	Malaya States ^{1/}
	2.65	100.0 gm.	3.53 oz.	
Tola	1.00	11.7 gm.	.41 oz.	India and Pakistan
	8.57	100.0 gm.	3.53 oz.	
Ton, metric	1.00	1,000.00 kg. (10 quintals)	2,204.6 lb. (1.1023 short tons or 0.9842 long tons)	Commonly used in most of the Far Eastern countries
Ton, long	1.00	1,016.05 kg. (1.0160 metric ton)	2,240.00 lb.	Burma, Malaya States ^{1/}
Ton, short	1.00	907.18 kg. (0.9072 metric ton)	2,000.00 lb.	Burma, Malaya States ^{1/}

^{1/} Including Straits Settlements, Federated and Unfederated Malaya States, North Borneo, Saranals, etc.

agreement among botanists in scientific names preferred. Genus and species names shown here are the ones preferred in Standardized Plant Names (148), with a few exceptions where other names were recommended by the Bureau of Plant Industry, Soils, and Agricultural Engineering, U. S. Department of Agriculture.

Common names of plant foods may differ greatly from one locality to another. Cross references for common names have been included in the table to help in locating composition data for an item but values have been entered in most instances under the common name used in Standardized Plant Names. Data have been entered under another common name if the preferred name would be difficult to locate without reference to botanical classification. Thus in the case of matai (*Eleocharis dulcis*), data have been entered under matai with a cross reference only under waternut. This tuber has erroneously been called "water chestnut" because it resembles waterchestnut (*Trapa natans*), a product commonly grown in Europe and other parts of the Western world.

An alphabetical index of the scientific names of plant products appearing in table 3 has been prepared, and follows table 3. The English name and item number from table 3 follow the scientific name. Before using the data in a given locality it is recommended that a botanist familiar with the local terminology translate the scientific name into the common name by which the product is known in that area.

Composition data for nearly all items in table 3 apply to raw foods, the exceptions being a few canned and dried items which are so labeled.

Among the many foods which of necessity have been omitted are the numerous pickled, brined, and fermented foods. The action of the agents used in preparing these products may be to concentrate some of the nutrients, add some, leach out, protect, or destroy others; and some of these conditions may even promote increases of some of the B vitamins over the amount normally present in the food. Only three kinds of seaweeds have been included and for these only the proximate composition given since data were insufficient or unsatisfactory for deriving representative values for minerals and vitamins. Additional information is needed for the composition of meat, particularly since the extent to which the animal is fattened and subsequently the extent to which the cuts are trimmed of fat make large differences in calorie values and protein content and indirectly in the B vitamins calculated by factors related to protein.

The term "edible portion," abbreviated to E.P., refers to the part of the food customarily eaten. Determinations of the composition of foods for human dietary purposes are based on an analysis of the edible portion.

Refuse refers to the portion usually discarded. It includes such parts as bones, pits, shells, and any parings and tough outer leaves of vegetables that customarily are not eaten.

The term "as purchased," abbreviated to A.P., is used to designate foods before removal of the parts not eaten. Composition data on the "as purchased" bases were derived, as usual, from data obtained from analysis of the edible portion, that is, by a calculation in which refuse is considered as part of the weight of the food but not contributing to any of the nutrients. Refuse is thus treated as a weight of inert material that dilutes the nutrients in the edible portion. The composition figures for food on an "as purchased" basis provide information on amounts of nutrients in the edible portion of the product when weighed with the kind and proportion of refuse described in the stub.

Parentheses denote imputed values for which no experimental evidence was available, or for which there was relatively little basis for imputing a value from another form of the food, or for which reported data were not considered suitable.

Dashes indicate that no basis could be found for imputing a reliable value although there was some reason to believe that a measurable amount of the constituent might be present.

The word "trace" indicates vitamin values that would round to zero with the number of decimal places carried in these tables. For other components that would round to zero, a zero is used.

TABLE 3.—Composition of foods, 100 grams, edible portion, and as purchased

Food and description	Ref-use	Water	Food energy	Protein	Fat	Carbohydrate		Ash	Calcium	Phosphorus	Iron	Vitamin A value	Thiamine	Riboflavin	Niacin value	Ascorbic acid
						Total	Fiber									
	Pct.	Pct.	Cal.	Gm.	Gm.	Gm.	Gm.	Gm.	Mg.	Mg.	Mg.	I.U.	Mg.	Mg.	Mg.	Mg.
CEREALS AND GRAIN PRODUCTS:																
Arrowroot (Maranta arundinacea):																
1 Flour, E.P.	0	13.6	355	0.7	0.2	85.2	Trace	0.3	8	22	1.5	--	--	--	--	--
Barley (Hordeum vulgare):																
2 Pearled, light, dry, E.P.	0	11.1	349	8.2	1.0	78.8	0.5	.9	16	189	(2.0)	(0)	0.12	0.08	3.1	0
Buckwheat (Fagopyrum esculentum):																
Flour, E.P.:																
3 Lightly milled	0	12.	332	11.7	2.5	72.0	1.6	1.8	33	347	2.8	(0)	.58	.15	2.9	(0)
4 Highly milled	0	12.	347	6.4	1.2	79.5	.5	.9	11	88	1.0	(0)	.08	(.04)	(.4)	(0)
Cassava (Manihot esculenta):																
5 Meal and flour, E.P.	0	11.9	360	1.6	.6	84.6	2.4	1.3	(82)	(132)	(1.9)	--	.06	--	--	--
Indian corn. See Maize.																
Kaoliang (Sorghum vulgare):																
6 Whole, E.P.	0	11.	332	11.0	3.3	73.0	1.7	1.7	28	287	4.4	(0)	.38	.15	3.9	(0)
Maize (Zea mays):																
Meal, white or yellow, whole ground, E.P.:																
7 Unbolted	0	12.	355	9.2	3.9	73.7	1.6	1.2	10	256	2.4	1/510	.38	.11	2.0	(0)
8 Bolted	0	12.	362	9.0	3.4	74.5	1.0	1.1	6	(178)	1.8	1/440	.30	.08	1.9	(0)
Millet, whole grain, E.P.:																
9 Foxtail millet (Setaria italica)	0	11.9	334	9.7	3.5	73.4	1.0	1.5	28	311	5.3	--	.51	--	.7	(0)
Pearlmillet (Pennisetum glaucum):																
10 Proso-millet (Panicum miliaceum)	0	11.0	335	11.4	5.0	70.2	1.5	2.4	50	358	9.0	--	.31	.14	1.8	(0)
Proso-millet (Panicum miliaceum):																
11 Proso-millet (Panicum miliaceum)	0	11.8	327	9.9	2.9	72.9	3.2	2.5	20	311	6.8	--	--	--	--	(0)
Ragimillet (Eleusine coracana)																
12 Ragimillet (Eleusine coracana)	0	11.7	332	6.2	1.4	78.2	1.2	2.5	329	254	5.3	(0)	.33	.10	1.3	(0)
Oats (Avena sativa):																
13 Rolled or oatmeal, E.P.	0	8.3	390	14.2	7.4	68.2	1.2	1.9	53	405	4.5	(0)	.60	.14	1.0	(0)
Rice (Oryza sativa), E.P.:																
14 Brown	0	13.	355	7.4	1.9	76.2	.6	1.2	12	290	2.0	(0)	.32	.05	4.6	(0)
15 Undermilled or home-pounded ..	0	12.	363	7.6	1.1	78.3	.4	1.1	11	221	1.2	(0)	.19	.05	3.1	(0)
16 Parboiled	0	12.	364	(6.8)	.6	80.1	(.2)	.7	5	142	(.8)	(0)	.22	(.03)	3.5	(0)
17 Enriched 2/	0	13.	360	6.8	.7	78.9	.2	.6	6	140	(2.9)	(0)	(.44)	.03	(3.5)	(0)
18 Polished, highly milled	0	13.	360	6.8	.7	78.9	.2	.6	6	140	.8	(0)	.12	.03	1.5	(0)
19 Flour	0	12.	363	7.4	.5	79.5	.4	.5	(6)	(140)	(.8)	(0)	(.12)	(.03)	(1.5)	(0)

20	Rice, glutinous (<i>Oryza sativa</i>), milled, E.P.	0	12.	362	6.7	.7	79.4	.5	1.0	12	148	(.8)	(0)	.16	--	(0)
21	Eye (Secale cereale): Whole grain or meal, E.P. Flour, E.P.:	0	11.	334	12.1	1.7	73.4	2.0	1.8	(38)	376	3.7	(0)	.43	.22	(0)
22	Light	0	11.	358	9.4	1.0	77.9	.4	.7	22	185	1.1	(0)	.15	.07	(0)
23	Medium	0	11.	350	11.4	1.7	74.8	1.0	1.1	(27)	262	2.6	(0)	.30	.12	(0)
24	Dark	0	11.	330	16.3	2.6	68.1	2.4	2.0	54	(536)	4.5	(0)	.61	.22	(0)
25	Sagopalm (<i>Metroxylon</i> spp.): Meal, E.P.	0	14.0	353	.7	.2	84.7	.2	.4	11	13	1.5	--	.01	--	--
26	Sorghum (<i>Sorghum vulgare</i>): Whole, E.P.	0	11.	332	11.0	3.3	73.0	1.7	1.7	28	287	4.4	(0)	.38	.15	(0)
27	Starch (including corn, etc.) .. Wheat (<i>Triticum aestivum</i>): Whole-grain or flour, E.P.:	0	12.	362	.5	.2	87.	.1	.3	(0)	(0)	(0)	(0)	(0)	(0)	(0)
28	Hard red winter	0	12.	332	12.4	1.8	72.1	2.3	1.7	46	356	3.4	(0)	.52	.12	(0)
29	Soft red winter	0	12.	333	10.4	2.0	73.9	2.4	1.7	43	409	3.6	(0)	.44	.11	(0)
30	White	0	12.	334	9.3	2.0	75.0	1.9	1.7	36	392	3.0	(0)	.53	.12	(0)
31	Flours, E.P.: 3/ Nearly whole-grain white wheat (atts, approx. 93 percent extraction). 80 percent extraction:	0	12.	341	8.9	1.7	76.1	1.6	1.3	31	329	2.5	(0)	.51	.09	(0)
32	Hard red wheat	0	12.	359	12.	1.3	74.1	.5	.65	24	191	1.3	(0)	.26	.07	(0)
33	White wheat	0	12.	360	9.0	1.4	77.0	.4	.65	18	209	1.2	(0)	.27	.07	(0)
34	Straight grade (approx. 70 percent extraction): Hard red wheat	0	12.	365	11.8	1.2	74.5	.4	.46	20	97	1.4	(0)	.12	.07	(0)
35	Soft red wheat	0	12.	364	9.7	1.0	76.9	.4	.42	20	97	1.1	(0)	.08	.05	(0)
36	White wheat	0	12.	365	8.9	1.3	77.3	.3	.46	16	106	1.2	(0)	.12	.07	(0)
37	All-purpose (refined)	0	12.	364	10.5	1.0	76.1	.3	.43	16	87	.8	(0)	.06	.05	(0)
38	Cake or pastry (very refined)	0	12.	364	7.5	.8	79.4	.2	.31	17	73	.5	(0)	.03	.03	(0)

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Vitamin A based on yellow corn meal; white corn meal contains only a trace.

2/ Iron, thiamine, and niacin are based on United States minimum levels of enrichment for wheat flour. These levels were used for enriched rice in the nutrition surveys and tests in the Bataan experimental area, Republic of Philippines.

3/ Wheat flours when enriched to minimum standards of the United States of America contain not less than 2.9 mg. iron; 0.44 mg. thiamine; 0.26 mg. riboflavin; and 3.5 mg. niacin per 100 gm. of the flour.

TABLE 3.—Composition of foods, 100 grams, edible portion, and as purchased.—Continued

Food and description	Ref-use	Water		Food energy	Protein	Fat	Carbo-hydrate		Ash	Calcium	Phosphorus	Iron	Vitamin A value	Thiamine	Riboflavin	Nicotinic value	Ascorbic acid
		Pct.	Pct.				Total	Fiber									
FRUITS; VEGETABLES:																	
FRUITS:																	
39 Apple (<i>Malus</i> spp.):																	
a E.P.	0	84.1	58	0.3	0.4	14.9	1.0	0.3	6	10	0.3	90	0.04	0.03	0.2	5	
b A.P.; refuse, skin and core..	12	74.0	51	.3	.4	13.0	.9	.3	5	9	.3	80	.04	.03	.2	4	
40 Apricot (<i>Prunus armeniaca</i>):																	
a E.P.	0	85.4	51	1.0	.1	12.9	.6	.6	16	23	.5	2,790	.03	.05	.8	7	
b A.P.; refuse, pit	6	80.3	47	.9	.1	12.1	.6	.6	15	22	.5	2,620	.03	.05	.8	7	
41 Banana, common (<i>Musa paradisica</i> var. <i>sepiantum</i>):																	
a E.P.	0	74.8	88	1.2	.2	23.0	.6	.8	8	28	.6	430	.04	.05	.7	10	
b A.P.; refuse, skin	33	50.1	59	.8	.1	15.4	.4	.6	5	19	.4	290	.03	.03	.5	7	
Banana, dwarf (<i>Musa nana</i>). Use Banana, common.																	
42 Breadfruit (<i>Artocarpus altifolius</i>):																	
a E.P.	0	70.8	102	1.7	.3	26.2	1.2	1.0	33	32	1.2	40	.11	.03	.9	29	
b A.P.; refuse, skin, stem, and core.	23	54.5	79	1.3	.2	20.2	.9	.8	25	25	.9	30	.08	.02	.7	22	
43 Bullockheart custardapple (<i>Annona reticulata</i>):																	
a E.P.	0	71.5	101	1.7	.6	25.2	3.4	1.0	27	20	.8	Trace	.08	.10	.5	22	
b A.P.; refuse, skin and seeds.	42	41.5	58	1.0	.3	14.6	2.0	.6	16	12	.5	0	.05	.06	.3	13	
44 Cantaloup (<i>Cucumis melo cantalupensis</i>):																	
a E.P.	0	94.0	20	.6	.2	4.6	.6	.6	17	16	.4	1/3,420	.05	.04	.5	33	
b A.P.; refuse, rind and cavity contents.	53	44.2	9	.3	.1	2.1	.3	.3	8	8	.2	1/1,610	.02	.02	.2	16	
Cape-gooseberry. See Ground-cherry.																	
45 Carambola (<i>Averrhoa carambola</i>), E.P.	0	90.4	35	.7	.5	8.0	.9	.4	4	17	1.5	1,210	.04	.02	.3	35	
46 Cherry, all kinds (<i>Prunus</i> spp.):																	
a E.P.	0	83.0	61	1.1	.5	14.8	.3	.6	18	20	.4	620	.05	.06	.4	8	
b A.P.; refuse, pit	6	78.0	58	1.0	.5	14.0	.3	.5	17	19	.4	580	.05	.06	.4	8	
47 Durian (<i>Durio zibethinus</i>):																	
a E.P.	0	62.9	144	2.5	3.1	30.4	1.7	1.1	9	44	.9	30	.24	.20	.7	24	
b A.P.; refuse, skin and seeds.	76	15.1	34	.6	.7	7.3	.4	.3	2	11	.2	10	.06	.05	.2	6	

	0	78.0	79	1.4	.4	19.6	1.7	.6	54	32	.6	80	.06	.05	.5	2
48 Fig (<i>Ficus carica</i>), E.P.																
49 Granadilla, all varieties (<i>Passiflora</i> spp.):																
a E.P., pulp and seeds	0	75.5	94	2.4	2.2	18.9	4.5	1.0	11	61	1.2	10	Trace	.10	1.4	17
b A.P.; refuse, shell	51	37.0	47	1.2	1.1	9.3	2.2	.5	5	30	.6	Trace	Trace	.05	.7	8
Grape (<i>Vitis</i> spp.):																
50 Adherent skin type, including seedless:																
a E.P.	0	81.6	66	.8	.4	16.7	.5	.5	17	21	.6	80	.06	.04	.2	4
b A.P.; refuse, stem and seeds	3	79.2	64	.8	.4	16.2	.5	.4	16	20	.6	80	.06	.04	.2	4
51 Slip skin type:																
a E.P.	0	81.9	70	1.4	1.4	14.9	.5	.4	17	21	.6	80	.06	.04	.2	4
b A.P.; refuse, skin and seeds	22	63.9	54	1.1	1.1	11.5	.4	.4	13	16	.5	60	.05	.03	.2	3
52 Groundcherry (<i>Physalis</i> spp.):																
a E.P.	0	85.4	53	1.9	.7	11.2	2.8	.8	9	40	1.0	720	.11	.04	2.8	11
b A.P.; refuse, husk	8	78.6	48	1.7	.6	10.3	2.6	.7	8	37	.9	660	.10	.04	2.6	10
53 Guava, common (<i>Psidium guajava</i>):																
a E.P.	0	80.5	70	1.0	.6	17.2	5.6	.7	16	33	.9	200	.06	.04	1.0	300
b A.P.; refuse, skin and seeds.	18	66.0	58	.8	.5	14.1	4.6	.6	13	27	.7	160	.05	.03	.8	246
54 Hawthorn, Chinese (<i>Crataegus</i> <i>pinnatifida</i>):																
a E.P.	0	74.6	91	.6	.6	23.4	1.8	.8	85	25	--	--	--	--	--	--
b A.P.; refuse, core	15	63.4	78	.5	.5	19.9	1.5	.7	72	21	--	--	--	--	--	--
55 Jakfruit (<i>Artocarpus</i> <i>heterophyllus</i>):																
a E.P.	0	72.0	98	1.3	.3	25.4	1.0	1.0	22	38	--	--	.03	--	.4	8
b A.P.; refuse, skin and seeds.	72	20.2	28	.4	.1	7.1	.3	.3	6	11	--	--	.01	--	.1	2
Jujube (<i>Zizyphus jujuba</i>):																
56 Fresh:																
a E.P.	0	70.2	105	1.2	.2	27.6	1.4	.8	29	37	.7	40	.02	.04	.9	69
b A.P.; refuse, seed	7	65.3	98	1.1	.2	25.7	1.3	.7	27	34	.7	40	.02	.04	.8	64
57 Dried:																
a E.P.	0	19.7	287	3.7	1.1	73.6	3.0	1.9	79	100	1.8	--	--	--	--	13
b A.P.; refuse, seed	11	17.5	255	3.3	1.0	65.5	2.7	1.7	70	89	1.6	--	--	--	--	12
58 Kumquat (<i>Fortunella</i> spp.):																
a E.P.	0	81.3	65	.9	.1	17.1	3.7	.6	63	23	.4	600	.08	.10	--	36
b A.P.; refuse, seeds	7	75.6	61	.8	.1	15.9	3.4	.6	59	21	.4	560	.07	.09	--	33

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Vitamin A based on deep-colored varieties.

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref- use	Water	Food en- ergy	Pro- tein	Fat	Carbo- hydrate		Ash	Cal- cium	Phos- phor- us	Iron	Vitamin A value	Thi- mine	Ribo- flavin	Nia- cin value	Ascor- bic acid	
	Pct.	Pct.	Cal.	Gm.	Gm.	Gm.	Gm.	Gm.	Mg.	Mg.	Mg.	I.U.	Mg.	Mg.	Mg.	Mg.	
FRUITS; VEGETABLES--Continued																	
FRUITS--Continued																	
59 Lemon (Citrus limon):																	
a E.P.	0	89.3	32	0.9	0.6	8.7	0.9	0.5	40	22	0.6	0	0.04	Trace	0.1	50	
b A.P.; refuse, rind and seeds.	38	55.4	20	.6	.4	5.3	.6	.3	25	14	.4	0	.02	Trace	.1	31	
60 Lime (Citrus aurantifolia):																	
a E.P.	0	86.0	37	.8	.1	12.3	(.9)	.8	(40)	(22)	(.6)	0	(.04)	(Trace)	(.1)	27	
b A.P.; refuse, rind and seeds.	24	65.4	28	.6	.1	9.3	(.7)	.6	(30)	(17)	(.5)	0	(.03)	(Trace)	(.1)	21	
Longan (Euphoria longan):																	
61 Fresh:																	
a E.P.	0	82.4	61	1.0	.1	15.8	.4	.7	10	42	1.2	--	--	--	--	(6)	
b A.P.; refuse, shell and seeds	47	43.7	33	.5	.1	8.4	.2	.4	5	22	.6	--	--	--	--	(3)	
62 Dried:																	
a E.P.	0	17.6	286	4.9	.4	74.0	2.0	3.1	45	196	5.4	--	.04	--	--	28	
b A.P.; refuse, shell and seeds	64	6.3	103	1.8	.1	26.6	.7	1.1	16	71	1.9	--	.01	--	--	10	
63 Logquat (Eriobotrya japonica):																	
a E.P.	0	86.5	48	.4	.2	12.4	.5	.5	20	36	.4	670	--	--	--	Trace	
b A.P.; refuse, skin and seeds.	38	53.6	29	.2	.1	7.7	.3	.3	12	22	.3	420	--	--	--	Trace	
Lychee (Litchi chinensis):																	
64 Fresh:																	
a E.P.	0	81.9	64	.9	.3	16.4	.3	.5	8	42	.4	--	--	0.05	--	42	
b A.P.; refuse, thin shell and seed.	40	49.1	39	.5	.2	9.8	.2	.3	5	25	.2	--	--	.03	--	25	
65 Dried:																	
a E.P.	0	22.3	277	3.8	1.2	70.7	1.4	2.0	33	181	1.7	--	--	--	--	--	
b A.P.; refuse, thin shell and seed.	54	10.3	128	1.7	.6	32.5	.6	.9	15	83	.8	--	--	--	--	--	
66 Maney or Mannee-apple (Mannee americana):																	
a E.P.	0	86.2	51	.5	.5	12.5	1.0	.3	11	11	.7	230	.02	.04	.4	14	
b A.P.; refuse, skin and seeds.	38	53.4	32	.3	.3	7.8	.6	.2	7	7	.4	140	.01	.02	.2	9	
67 Mango (Mangifera indica):																	
a E.P.	0	81.4	66	.7	.2	17.2	1.0	.5	9	13	.2	6,350	.06	.06	.9	41	
b A.P.; refuse, skin and seed..	34	53.7	44	.5	.1	11.4	.7	.3	6	9	.1	4,190	.04	.04	.6	27	
68 Mangosteen (Garcinia mangostana):																	
a E.P.	0	83.0	63	.6	.6	15.6	5.1	.2	8	12	.8	--	.03	--	--	2	
b A.P.; refuse, tough rind and seeds.	71	24.1	19	.2	.2	4.5	1.5	.1	2	3	.2	--	.01	--	--	1	

Muskmelon (<i>Cucumis melo</i>):																	
69	Cantaloup (<i>Cucumis melo</i> , cantalupensis):																
a	E.P.	0	94.0	20	.6	.2	4.6	.6	.6	17	16	.4	1/3,420	.05	.04	.5	33
b	A.P.; refuse, rind and cavity contents.	53	44.2	9	.3	.1	2.1	.3	.3	8	8	.2	1/1,610	.02	.02	.2	16
70 Others:																	
a	E.P.	0	90.5	32	.5	0.	8.5	.4	.5	(17)	(16)	(.4)	40	.05	.03	.2	23
b	A.P.; refuse, rind and cavity contents.	37	57.0	20	.3	0.	5.4	.3	.3	(11)	(10)	(.3)	30	.03	.02	.1	14
71 Orange, sweet (<i>Citrus sinensis</i>):																	
a	E.P.	0	87.2	45	.9	.2	11.2	.6	.5	33	23	.4	(190)	.08	.03	.2	49
b	A.P.; refuse, rind and seeds.	28	62.8	32	.6	.1	8.2	.4	.3	24	17	.3	(140)	.06	.02	.1	35
Orange juice, E.P.:																	
72	Fresh	0	87.5	44	.8	.2	11.0	.1	.4	19	16	.2	(190)	.08	.03	.2	49
Canned:																	
73	Unsweetened	0	87.5	44	.8	.2	11.1	.1	.4	10	18	.3	(100)	.07	.02	.2	42
74	Sweetened	0	84.8	54	.6	.2	13.9	.1	.5	10	18	.3	(100)	.07	.02	.2	42
75 Orange, mandarin, loose-skin type (<i>Citrus reticulata</i>):																	
a	E.P.	0	87.3	44	.8	.3	10.9	1.0	.7	(33)	(23)	(.4)	(420)	.07	(.03)	(.2)	31
b	A.P.; refuse, rind and seeds.	29	62.0	31	.6	.2	7.7	.7	.5	(23)	(16)	(.3)	(300)	.05	(.02)	(.1)	22
76 Orange, sour (<i>Citrus aurantium</i>):																	
a	E.P.	0	87.5	44	.7	.1	11.2	2.0	.5	42	20	.4	120	.07	.03	.3	43
b	A.P.; refuse, rind and seeds.	37	55.1	28	.4	.1	7.1	1.3	.3	26	13	.3	80	.04	.02	.2	27
77 Papaya (<i>Carica papaya</i>):																	
a	E.P.	0	88.7	39	.6	.1	10.0	.9	.6	20	16	.3	1,750	.03	.04	.3	56
b	A.P.; refuse, rind and seeds.	32	60.3	27	.4	.1	6.8	.6	.4	14	11	.2	1,190	.02	.03	.2	38
Passion-fruit. See Granadilla.																	
Peach (<i>Prunus persica</i>):																	
78 Fresh:																	
a	E.P.	0	86.9	46	.5	.1	12.0	.6	.5	8	22	.6	880	.02	.05	.9	8
b	A.P.; refuse, pit only	8	79.9	42	.5	.1	11.1	.6	.4	7	20	.6	810	.02	.05	.8	7
c	A.P.; refuse, pit and skin.	12	76.5	40	.4	.1	10.6	.5	.4	7	19	.5	770	.02	.04	.8	7
79 Canned, total contents of can, E.P.:																	
a	Water pack	0	92.3	27	.5	.1	6.8	.3	.3	5	14	.4	450	.01	.02	.7	4
b	Sirup pack	0	80.9	68	.4	.1	18.2	.4	.4	5	14	.4	450	.01	.02	.7	4

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Vitamin A based on deep-colored varieties.

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref-use	Water	Food energy	Protein	Fat	Carbohy- drate		Ash	Cal- cium	Phos- phor- us	Iron	Vitamin A value	Thia- mine	Ribo- flavin	Nia- cin value	Ascor- bic acid
						Total	Fiber									
	Pct.	Pct.	Cal.	Gm.	Gm.	Gm.	Gm.	Gm.	Mg.	Mg.	Mg.	I.U.	Mg.	Mg.	Mg.	Mg.
FRUITS; VEGETABLES--Continued																
FRUITS--Continued																
80 Pear (<i>Pyrus</i> spp.):																
a E.P.	0	82.7	63	0.7	0.4	15.8	1.4	0.4	13	16	0.3	20	0.02	0.04	0.1	4
b A.P.; refuse, skin and core..	17	68.6	52	.6	.3	13.2	1.2	.3	11	13	.2	20	.02	.03	.1	3
81 Persimmon (<i>Diospyros kaki</i>):																
a E.P.	0	78.2	78	.8	.4	20.0	1.9	.6	6	26	.3	2,710	.05	.05	Trace	11
b A.P.; seedless kinds; refuse, skin.	3	75.9	76	.8	.4	19.4	1.8	.6	6	25	.3	2,630	.05	.05	Trace	11
c A.P.; kind with seeds; refuse, skin and seeds.	24	59.4	59	.6	.3	15.2	1.4	.5	5	20	.2	2,060	.04	.04	Trace	8
Pineapple (<i>Ananas comosus</i>):																
82 Fresh:																
a E.P.	0	85.3	52	.4	.2	13.7	.4	.4	16	11	.3	130	.08	.02	.2	24
b A.P.; refuse, crown, core, and parings.	47	45.2	28	.2	.1	7.3	.2	.2	8	6	.2	70	.04	.01	.1	13
83 Canned, sirup pack, total contents of can, E.P.	0	78.0	78	.4	.1	21.1	.3	.4	29	7	.6	80	.07	.02	.2	9
84 Pineapple juice, canned, E.P....	0	86.2	49	.3	.1	13.0	.1	.4	15	8	.5	80	.05	.02	.2	9
85 Pitanga (<i>Eugenia uniflora</i>):																
a E.P.	0	85.8	51	.8	.4	12.5	.6	.5	9	11	.2	--	--	--	--	30
b A.P.; refuse, stem, blossom end, and seed.	19	69.5	41	.6	.3	10.1	.5	.4	7	9	.2	--	--	--	--	24
86 Plantain (<i>Musa paradisiaca</i>):																
a E.P.	0	66.4	119	1.1	.4	31.2	.4	.9	7	30	.7	1/	.06	.04	.6	14
b A.P.; refuse, skin	23	51.1	92	.8	.3	24.0	.3	.7	5	23	.5	1/	.05	.03	.5	11
87 Plum (<i>Prunus domestica</i>):																
a E.P.	0	85.7	50	.7	.2	12.9	.5	.5	17	20	.5	350	.06	.04	.5	5
b A.P.; refuse, pit only	5	81.4	48	.7	.2	12.3	.5	.5	16	19	.5	330	.06	.04	.5	5
c A.P.; refuse, pit and skin .. Poha. See Groundcherry.	15	72.8	43	.6	.2	11.0	.4	.4	14	17	.4	300	.05	.03	.4	4
88 Pomegranate (<i>Punica granatum</i>):																
a E.P.; pulp or aril	0	82.3	63	.5	.3	16.4	.2	.5	3	8	.3	0	.02	.01	.3	10
b A.P.; refuse, skin and seeds.	44	46.1	36	.3	.2	9.2	.1	.3	2	4	.2	0	.01	.01	.2	6
89 Pummelo (<i>Citrus grandis</i>):																
a E.P.	0	86.3	48	.6	.2	12.4	.3	.5	23	27	.5	20	.04	.02	.3	43
b A.P.; refuse, skin and seeds.	38	53.5	30	.4	.1	7.7	.2	.3	14	17	.3	10	.02	.01	.2	27

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref-use	Water	Food energy	Protein	Fat	Carbo-hydrate		Ash	Calcium	Phosphorus	Iron	Vitamin A	Thiamine	Riboflavin	Niacin	Ascorbic acid
						Total	Fiber									
	Pct.	Pct.	Cal.	Gm.	Gm.	Gm.	Gm.	Gm.	Mg.	Mg.	Mg.	I.U.	Mg.	Mg.	Mg.	Mg.
FRUITS; VEGETABLES--Continued																
VEGETABLES, RAW:																
100 Amaranth (<i>Amaranthus</i> spp.):																
a E.P.	0	86.9	36	3.5	0.5	6.5	1.3	2.6	267	67	3.9	6,090	0.08	0.16	1.4	80
b A.P.; refuse, tough stem	29	61.7	26	2.5	.4	4.6	.9	1.8	190	48	2.8	4,320	.06	.11	1.0	57
101 Arrowhead (<i>Sagittaria sagittifolia</i>):																
a E.P., tuber	0	69.5	106	5.0	.2	23.7	.8	1.6	16	216	1.4	--	--	--	--	2
b A.P.; refuse, parings	20	55.6	86	4.0	.2	19.0	.6	1.3	13	173	1.1	--	--	--	--	2
102 Arrowroot (<i>Maranta arundinacea</i> , E.P.):	0	67.4	126	1.7	.2	29.6	2.0	1.1	--	--	--	--	--	--	--	--
103 Asparagus (<i>Asparagus officinalis</i>):																
a E.P.	0	93.0	21	2.2	.2	3.9	.7	.7	21	62	.9	1,000	.16	.19	1.4	33
b A.P.; refuse, butt end	25	69.8	16	1.6	.2	2.9	.5	.5	16	46	.7	750	.12	.14	1.0	25
104 Aster (<i>Aster amellus</i>), E.P., leaves:	0	89.8	31	3.0	.6	5.2	1.0	1.4	138	52	2.0	--	--	--	--	69
105 Balsempear (<i>Momordica charantia</i>):																
a E.P.	0	91.2	29	1.1	.3	6.6	1.1	.8	45	64	1.4	180	.08	.03	.4	52
b A.P.; refuse, cavity contents	23	70.2	22	.8	.2	5.1	.8	.6	35	49	1.1	140	.06	.02	.3	40
106 Bamboo shoot (<i>Bambusa</i> spp. and <i>Phyllostachys</i> spp.):																
a E.P.	0	91.0	27	2.6	.3	5.2	.7	.9	13	59	.5	20	.15	.07	.6	4
b A.P.; refuse, sheaths	71	26.4	8	.8	.1	1.5	.2	.3	4	17	.1	Trace	.04	.02	.2	1
107 Beans, broad (<i>Vicia faba</i>), including horse bean:																
a E.P.	0	73.9	98	7.7	.3	17.0	2.3	1.1	24	150	2.0	160	.27	.18	1.6	30
b A.P.; refuse, shells	66	25.1	33	2.6	.1	5.8	.8	.4	8	51	.7	50	.09	.06	.5	10
108 Beans, hyacinth (<i>Dolichos lablab</i>), young pods, including immature beans, E.P.):	0	89.0	35	2.8	.3	7.1	1.8	.8	62	58	1.0	1,260	.10	.14	.9	21
a E.P.	0	66.5	128	7.5	.8	23.5	1.5	1.7	63	158	2.3	280	.21	.11	1.4	32
b A.P.; refuse, shells	60	26.6	51	3.0	.3	9.4	.6	.7	25	63	.9	110	.08	.04	.6	13

110 Beans, snap or string (*Phaseolus vulgaris*):

a	E.P.	0	88.9	35	2.4	.2	7.7	1.4	.8	65	44	1.1	.08	.11	.5	19
b	A.P.; refuse, ends	10	80.0	32	2.2	.2	6.9	1.3	.7	58	40	1.0	.07	.10	.4	17

Beans, yard-long (*Vigna sesquipedalis*). See Cow-peas, young green pods.

111 Beet (*Beta vulgaris*):

a	E.P., peeled root	0	87.6	42	1.6	.1	9.6	.9	1.1	27	43	1.0	.02	.05	.4	10
b	A.P.; without tops; refuse, parings.	25	65.7	32	1.2	.1	7.2	.7	.8	20	32	.8	.02	.04	.3	8
c	A.P.; with tops; refuse, tops and parings.	47	46.4	23	.8	.1	5.1	.5	.6	14	23	.5	.01	.03	.2	5

112 Beet greens:

a	E.P.	0	90.4	27	2.0	.3	5.6	1.4	1.7	1/118	45	3.2	.08	.18	.4	34
b	A.P.; refuse, inedible leaves and stems.	25	67.8	20	1.5	.2	4.2	1.0	1.3	1/88	34	2.4	.06	.14	.3	26

Box thorn, Chinese. See Wolf-berry, Chinese, leaves.

113 Broccoli (*Brassica oleracea* var. botrytis):

a	E.P., flower stalk	0	89.9	29	3.3	.2	5.5	1.3	1.1	130	76	1.3	.10	.21	1.1	118
b	A.P.; leaves and tough stalk	39	54.8	18	2.0	.1	3.4	.8	.7	79	46	.8	.06	.13	.7	72

114 Brussels sprouts (*Brassica oleracea* var. gemmifera):

a	E.P.	0	84.9	47	4.4	.5	8.9	1.3	1.3	34	78	1.3	.08	.16	.7	94
b	A.P.; refuse, outer leaves..	23	65.4	36	3.4	.4	6.8	1.0	1.0	26	60	1.0	.06	.12	.5	72

115 Burdock (*Arctium lappa*):

a	E.P., root	0	73.7	94	3.1	.1	22.0	2.2	1.1	61	77	1.4	.03	.05	--	5
b	A.P.; refuse, scrapings and trimmings.	34	48.6	62	2.0	.1	14.5	1.5	.7	40	51	.9	.02	.03	--	3

116 Cabbage, celery or Pestsai (*Brassica pekinensis*):

a	E.P.	0	95.4	14	1.2	.3	2.4	.5	.7	43	41	.9	.03	.04	.4	31
b	A.P.; refuse, outer leaves..	(13)	83.0	12	1.0	.3	2.1	.4	.6	37	36	.8	.03	.03	.3	27

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Calcium may not be available because of presence of oxalic acid.

TABLE 3.—Composition of foods, 100 grams, edible portion, and as purchased—Continued

Food and description	Ref-use	Water	Food energy	Protein	Fat	Carbohy- drate		Ash	Cal- cium	Phos- phorus	Iron	Vitamin A value	Thia- mine	Ribo- flavin	Nia- cin value	Ascor- bic acid
						Total	Fiber									
FRUITS; VEGETABLES—Continued																
VEGETABLES, RAW—Continued																
117 Cabbage, Chinese or Pakchoi (<i>Brassica chinensis</i>):																
a E.P.	0	94.9	14	1.5	0.2	2.3	0.6	1.1	136	44	1.0	(2,800)	0.06	0.17	0.9	45
b A.P.; refuse, trimmings	13	82.6	12	1.3	.2	2.0	.5	1.0	118	38	.9	(2,440)	.05	.15	.8	39
118 Cabbage, common (<i>Brassica oleracea</i> var. <i>capitata</i>):																
a E.P.	0	92.4	24	1.4	.2	5.3	1.0	.8	46	31	.5	80	.06	.05	.3	50
b A.P.; refuse, outer leaves and core.	27	67.5	17	1.0	.1	3.9	.7	.5	34	23	.4	60	.04	.04	.2	36
119 Kalebush (<i>Legenaria leucantha</i>):																
a E.P.	0	95.0	17	.6	.2	3.8	.8	.4	12	18	.6	70	.04	.05	1.0	10
b A.P.; refuse, parings	20	76.0	14	.5	.2	3.0	.6	.3	10	14	.5	60	.03	.04	.8	8
120 Carrot (<i>Daucus carota</i>):																
a E.P.	0	88.2	42	1.2	.3	9.3	1.1	1.0	39	37	.8	12,000	.06	.06	.6	6
b A.P.; without tops; refuse, scrapings.	12	77.6	37	1.1	.3	8.2	1.0	.9	34	33	.7	10,560	.05	.05	.5	5
c A.P.; with tops; refuse, tops and scrapings.	37	55.6	26	.8	.2	5.8	.7	.6	25	23	.5	7,560	.04	.04	.4	4
121 Cassava, common, bitter (<i>Manihot esculenta</i>):																
a E.P.	0	64.7	131	1.1	.3	32.7	1.3	1.2	33	53	.8	Trace	.07	.03	.6	40
b A.P.; refuse, brown skin and thin inner layer.	26	47.9	97	.8	.2	24.2	1.0	.9	24	39	.6	Trace	.05	.02	.4	30
122 Cauliflower (<i>Brassica oleracea</i> var. <i>botrytis</i>):																
a E.P.	0	91.7	25	2.4	.2	4.9	.9	.8	22	72	1.1	90	.11	.10	.6	69
b A.P.; refuse, main stalk	43	52.3	14	1.4	.1	2.7	.5	.5	13	41	.6	50	.06	.06	.3	39
c A.P.; refuse, main stalk and leafstalk.	55	41.3	11	1.1	.1	2.1	.4	.4	10	32	.5	40	.05	.04	.3	31
123 Cedar (<i>Cedrela sinensis</i>), E.P., leaves.	0	85.2	45	5.4	.6	7.5	1.5	1.3	70	111	3.3	7,230	--	--	--	--
Celery (<i>Apium graveolens</i>):																
124 Bleached:																
a E.P.	0	93.7	18	1.3	.2	3.7	.7	1.1	50	40	.5	0	.05	.04	.4	7
b A.P.; refuse, leaves and trimmings.	37	59.0	11	.8	.1	2.4	.4	.7	32	25	.3	0	.03	.03	.3	4

141	Horseradish (<i>Armoracia rusticana</i>):	0	74.6	87	3-2	.3	19.7	2.4	2.2	140	64	1.4	--	.07	--	81
a	E.P.	27	54.5	63	2.3	.2	14.4	1.8	1.6	102	47	1.0	--	.05	--	59
b	A.P.; refuse, parings															
142	Kale (<i>Brassica oleracea</i> var. <i>acephala</i>):	0	86.6	40	3.9	.6	7.2	1.2	1.7	225	62	2.2	7,540	.10	.26	115
a	E.P.	36	55.4	26	2.5	.4	4.6	.8	1.1	144	40	1.4	4,830	.06	.17	74
b	A.P.; refuse, stalks, outer leaves, and midribs.															
143	Kohlrabi (<i>Brassica oleracea</i> var. <i>gongylodes</i>):	0	90.1	30	2.1	.1	6.7	1.1	1.0	46	50	.6	Trace	.06	.05	61
a	E.P.	46	48.7	16	1.1	.1	3.5	.6	.6	25	27	.3	0	.03	.03	33
b	A.P.; refuse, tops and parings															
144	Kudzu (<i>Pueraria thunbergiana</i>):	0	68.6	113	2.1	.1	27.8	.7	1.4	(15)	(18)	(.6)	--	--	--	--
a	E.P., tuber	(7)	63.8	106	2.0	.1	25.9	.7	1.3	(14)	(17)	(.6)	--	--	--	--
b	A.P.; refuse, skin															
	Lady's finger. See Okra.															
145	Leek (<i>Allium porrum</i>):	0	86.3	45	2.2	.3	10.3	1.1	.9	52	50	1.1	40	.11	.06	17
a	E.P., lower leaf and bulb ...	48	44.9	24	1.1	.2	5.4	.6	.5	27	26	.6	20	.06	.03	9
b	A.P.; refuse, top, and rootlets.															
	Leek, Chinese. See Onion, fragrant.															
	Lettuce (<i>Lactuca sativa</i>):															
146	Headed:	0	94.8	15	1.2	.2	2.9	.6	.9	22	25	.5	540	.04	.08	8
a	E.P.	31	65.4	10	.8	.1	2.1	.4	.6	15	17	.3	370	.03	.06	6
b	A.P.; refuse, stalk and outer leaves.															
147	Unheaded:	0	94.8	15	1.2	.2	2.9	.6	.9	62	20	1.1	1,620	.04	.08	18
a	E.P.	31	65.4	10	.8	.1	2.1	.4	.6	43	14	.8	1,120	.03	.06	12
b	A.P.; refuse, outer leaves. Lettuce (<i>Lactuca serriola</i>). Use Lettuce, unheaded.															
	Loofah, smooth. See Vegetable-sponge.															
	Loofah, angled. See Towelgourd.															

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Based on pared cucumbers; unpared contain about 1.2 mg. iron and 260 I.U. vitamin A per 100 gm.

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref-use	Water		Food energy	Protein	Fat	Carbo-hydrate		Ash	Cal-cium	Phos-phorus	Iron	Vitamin A value	Thia-mine	Ribo-flavin	Nia-cin value	Ascor-bic acid
		Pct.	Pct.				Gm.	Gm.									
FRUITS; VEGETABLES--Continued																	
VEGETABLES, RAW--Continued																	
148 Lotus root (<i>Nelumbium nelumbo</i>):																	
a E.P.	0	85.9	49	1.7	0.1	11.3	0.8	1.0	21	74	0.4	--	--	0.05	--	--	22
b A.P.; refuse, skin	21	67.9	39	1.3	.1	8.9	.6	.8	17	58	.3	--	--	.04	--	--	17
149 Matal (<i>Eleocharis dulcis</i>) [E. tuberosa]:																	
a E.P.	0	78.3	78	1.4	.2	19.0	.8	1.1	4	65	.6	--	--	--	--	--	4
b A.P.; refuse, skin	23	60.3	61	1.1	.2	14.6	.6	.8	3	50	.5	--	--	--	--	--	3
Matrimonyvine. See Wolfberry, Chinese, leaves.																	
150 Mang bean sprouts (<i>Phaseolus aureus</i>), E.P.	0	92.4	23	2.9	.2	4.1	.7	.4	29	59	.8	10	.07	0.09	0.5		15
Mushroom:																	
151 <i>Agaricus campestris</i> (Common mushroom):																	
a E.P.	0	91.1	16	2.4	.3	4.0	.9	1.1	9	115	1.0	0	.10	.44	4.9		5
b A.P.; refuse, trimmings ...	9	82.9	15	2.2	.3	3.6	.8	1.0	8	105	.9	0	.09	.40	4.5		5
Use data on <i>Agaricus campestris</i> for: <i>Psaliota campestris</i> (Tung Ku) <i>Volvaria diplasia</i> . <i>Volvaria esculenta</i> (Mo Ku; Ts'oi Ku). <i>Volvaria volvacea</i> (Straw-mushroom).																	
152 Mustard greens (<i>Brassica juncea</i> and other pungent species):																	
a E.P.	0	92.2	22	2.3	.3	4.0	.8	1.2	220	38	2.9	6,460	.09	.20	.8		102
b A.P.; refuse, trimmings	(13)	80.2	20	2.0	.3	3.5	.7	1.0	191	33	2.5	5,620	.08	.17	.7		89
153 Okra (<i>Hibiscus esculentus</i>):																	
a E.P.	0	89.8	32	1.8	.2	7.4	1.0	.8	82	62	.7	740	.08	.07	1.1		30
b A.P.; refuse, stem end	12	79.0	29	1.6	.2	6.5	.9	.7	72	55	.6	650	.07	.06	1.0		26
154 Onion, common, mature (<i>Allium cepa</i>):																	
a E.P.	0	87.5	45	1.4	.2	10.3	.8	.6	32	44	.5	50	.03	.04	.2		9
b A.P.; refuse, skin and rootlets.	6	82.2	42	1.3	.2	9.8	.8	.5	30	41	.5	50	.03	.04	.2		8

155	Onion, fragrant (<i>Allium odorum</i>), E.P.	0	91.0	28	2.2	.4	5.4	.6	1.0	80	44	1.0	520	.06	.11	.9	20
156	Onion, welsh (<i>Allium fistulosum</i>):																
a	E.P.	0	90.5	31	1.9	.4	6.5	1.0	.7	18	49	--	--	.05	--	--	27
b	A.P.; refuse, tops and roots.	35	58.8	20	1.2	.3	4.2	.6	.5	12	32	--	--	.03	--	--	18
157	Parsley (<i>Petroselinum hortense</i>), E.P.	0	83.9	50	3.7	1.0	9.0	1.8	2.4	1/193	84	4.3	8,230	.11	.28	1.4	193
158	Parsnip (<i>Pastinaca sativa</i>):																
a	E.P.	0	78.6	78	1.5	.5	18.2	2.2	1.2	57	80	.7	0	.08	.12	.2	18
b	A.P.; refuse, scrapings	22	61.3	61	1.2	.4	14.2	1.7	.9	44	62	.5	0	.06	.09	.2	14
159	Peas, edible-podded or sugar peas (<i>Pisum sativum</i> var. <i>macrocarpon</i>), E.P.	0	83.3	53	3.4	.2	12.0	1.2	1.1	62	90	.7	(680)	.28	.12	--	21
160	Peas, garden (<i>Pisum sativum</i>):																
a	E.P., shelled	0	74.3	98	6.7	.4	17.7	2.2	.9	22	122	1.9	680	.34	.16	2.7	26
b	A.P.; refuse, shells	55	33.4	45	3.0	.2	8.0	1.0	.4	10	55	.9	310	.15	.07	1.2	12
161	Pepper or redpepper, mild kinds (<i>Capsicum frutescens</i>):																
a	E.P.	0	92.4	25	1.2	.2	5.7	1.4	.5	11	25	.4	630	.04	.07	.4	120
b	A.P.; refuse, stem end, seeds, and core.	16	77.6	21	1.0	.2	4.8	1.2	.4	9	21	.3	530	.03	.06	.3	101
162	Pigeonpeas (<i>Cajanus cajan</i>):																
163	Immature seeds, E.P.	0	70.3	114	7.0	.6	20.8	3.3	1.3	32	122	1.5	70	.37	.18	2.3	43
163	Potato (<i>Solanum tuberosum</i>):																
a	E.P.	0	77.8	83	2.0	.1	19.1	.4	1.0	11	56	.7	Trace	.11	.04	1.2	17
b	A.P.; refuse, parings	16	65.4	70	1.7	.1	16.0	.3	.8	9	47	.6	Trace	.09	.03	1.0	14
164	Pumpkin (<i>Cucurbita pepo</i>):																
a	E.P.	0	90.5	31	1.2	.2	7.3	1.3	.8	21	44	.8	(3,400)	(.05)	(.08)	(.6)	8
b	A.P.; refuse, rind and cavity contents.	31	62.4	21	.8	.1	5.1	.9	.6	14	30	.6	(2,350)	(.03)	(.06)	(.4)	6
165	Purslane (<i>Portulaca oleracea</i>), E.P., leaves and stem.	0	92.5	21	1.7	.4	3.8	.9	1.6	103	39	3.6	2,550	.03	.10	.5	25
166	Radish (<i>Raphanus sativus</i>):																
a	E.P.	0	93.6	20	1.2	.1	4.2	.7	1.0	37	31	1.0	30	.03	.02	.3	24
b	A.P.; refuse, tops and rootlets.	51	45.9	9	.6	.0	2.0	.3	.5	18	15	.5	20	.01	.01	.1	12

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Calcium may not be available because of presence of oxalic acid.

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref- use	Food en- ergy		Pro- tein	Fat	Carbo- hydrate		Ash	Cal- cium	Phos- phorus	Iron	Vitamin A value	Thia- mine	Ribo- flavin	Nia- cin value	Ascor- bic acid
		Pct.	Cal.			Total	Fiber									
FRUITS; VEGETABLES--Continued																
VEGETABLES, RAW--Continued																
167 Radish, Chinese (Raphanus sativus var. longipinnatus):																
a E.P.	0	94.1	19	0.9	0.1	4.2	0.7	0.7	35	26	0.6	10	0.03	0.02	0.4	32
b A.P.; without tops; refuse, parings.	(13)	81.9	17	.8	.1	3.7	.6	.6	30	23	.5	10	.03	.02	.3	28
c A.P.; with tops; refuse, tops and parings.	(34)	62.1	13	.6	.1	2.8	.5	.5	23	17	.4	Trace	.02	.01	.3	21
168 Rutabaga (Brassica napo- brassica):																
a E.P.	0	89.1	38	1.1	.1	8.9	1.3	.8	55	41	.4	330	.07	.08	.9	36
b A.P.; refuse, parings	15	75.7	32	.9	.1	7.6	1.1	.7	47	35	.3	280	.06	.07	.8	31
Seaweed, E.P.: 1/				(0)	.2	(0)	--	3.3	--	--	--	--	--	--	--	--
169 Agar (Gelidium spp.)	0	17.8	--	(0)	1.1	(0)	--	20.6	--	--	--	--	--	--	--	--
170 Kelp (Laminaria spp.)	0	23.6	--	(0)	1.1	(0)	--	20.6	--	--	--	--	--	--	--	--
171 Liver (Porphyra laciniata)	0	16.9	--	(0)	.6	(0)	4.7	10.6	--	--	--	--	--	--	--	--
172 Shepherdspurse (Capsella bursa-pastoris):																
a E.P.	0	86.4	39	4.5	.5	6.6	1.1	2.0	302	94	--	--	--	--	--	56
b A.P.; refuse, trimmings	7	80.4	36	4.2	.5	6.1	1.0	1.9	281	87	--	--	--	--	--	52
Soybean (Glycine max):																
173 Immature seeds:																
a E.P.	0	67.0	119	12.5	6.5	2/12.5	1.5	1.5	79	265	3.3	700	.37	.15	1.4	30
b A.P.; refuse, shell	47	35.5	62	6.6	3.4	2/6.6	.8	.8	42	140	1.7	370	.20	.08	.7	16
174 Soybean curd, E.P.	0	85.1	71	7.0	4.1	3.0	.1	.8	100	95	1.5	--	.06	.05	.4	(0)
175 Soybean sprouts, E.P.	0	86.3	46	6.2	1.4	5.3	.8	.8	48	67	1.0	180	.23	.20	.8	13
176 Spinach (Spinacia oleracea):																
a E.P.	0	92.7	20	2.3	.3	3.2	.6	1.5	3/81	55	3.0	9,420	.11	.20	.6	59
b A.P.; refuse, main stalk and outer leaves.	18	76.0	16	1.9	.2	2.6	.5	1.3	3/66	45	2.5	7,720	.09	.16	.5	48
Spinach, Ceylon. See Vine- spinach.																
177 Spinach, New Zealand (Tetragonia expansa):																
a E.P.	0	91.8	21	2.4	.3	3.6	.7	1.9	3/61	40	2.7	3,020	.03	.16	.5	31
b A.P.; refuse, main stalk and outer leaves.	(18)	75.3	17	2.0	.2	3.0	.6	1.6	3/50	33	2.2	2,480	.02	.13	.4	25

178 Squash, summer (*Cucurbita pepo*):

a	E.P.	0	95.0	16	.6	.1	3-9	.5	.4	15	15	.4	260	.05	.09	.8	17
b	A.P.; refuse, stem end, skin, and seed part.	35	61.8	11	.4	.1	2-5	.3	.3	10	10	.3	170	.03	.06	.5	11

179 Squash, winter (*Cucurbita maxima*):

a	E.P.	0	88.6	38	1.5	.3	8.8	1.4	.8	19	28	.6	4,950	.05	.12	.5	8
b	A.P.; refuse, rind and cavity contents.	26	65.6	28	1.1	.2	6.5	1.0	.6	14	21	.4	3,660	.04	.09	.4	6

180 Swamp cabbage (*Ipomoea reptans*):

a	E.P.	0	89.7	29	3.0	.3	5-4	1.1	1.6	73	51	2.5	6,300	.07	.12	.7	32
b	A.P.; refuse, inedible stems and trimmings.	19	72.7	23	2.4	.2	4-4	.9	1.3	59	41	2.0	5,100	.06	.10	.6	26

181 Sweetpotato (*Ipomoea batatas*):

a	E.P.	0	68.5	123	1.8	.7	27-9	1.0	1.1	30	49	.7	47,700	.09	.05	.6	22
b	A.P.; refuse, parings	14	58.9	106	1.5	.6	24-1	.9	.9	26	42	.6	46,620	.08	.04	.5	19

Taro (*Colocasia* spp.):

182	Leaves and stems, E.P.	0	87.2	40	3.0	.8	7-4	1.4	1.6	76	59	1.0	--	--	--	--	31
183	Corms and tubers:																
a	E.P.	0	73.0	98	1.9	.2	23-7	.8	1.2	28	61	1.0	20	.13	.04	1.1	4
b	A.P.; refuse, skins	16	61.3	82	1.6	.2	19-9	.7	1.0	24	51	.8	20	.11	.03	.9	3

184 Tomato (*Lycopersicon esculentum*):

a	E.P.	0	94.1	20	1.0	.3	4-0	.6	.6	11	27	.6	1,100	.06	.04	.5	23
b	A.P.; refuse, skin, stem, and inedible flesh.	12	82.8	18	.9	.3	3-5	.5	.5	10	24	.5	970	.05	.04	.4	20

185 Towelgourà (*Lufta scutangula*):

a	E.P.	0	94.5	18	.8	.2	4-1	.5	.4	19	33	.9	380	.03	.04	.4	8
b	A.P.; refuse, parings	15	80.3	16	.7	.2	3-5	.4	.3	16	28	.8	320	.03	.03	.3	7

186 Trestomato (*Cyphomandra betacea*):

a	E.P.	0	85.9	48	1.5	.3	11-3	2-2	1-0	13	24	.8	--	.04	.04	1-0	17
b	A.P.; refuse, skin and seeds.	27	62.7	35	1.1	.2	8-2	1-6	.7	9	18	.6	--	.03	.03	.7	12

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Data in the literature for minerals are extremely variable.

2/ Approximately 40 percent of this total amount of carbohydrate calculated by difference is sugar, starch, and dextrin. The remaining portion is made up of materials thought to be utilized only poorly, if at all, by the body.

3/ Calcium may not be available because of presence of oxalic acid.

4/ If very pale varieties only were used, the vitamin A value would be very much lower.

TABLE 3.—Composition of foods, 100 grams, edible portion, and as purchased—Continued

Food and description	Ref-use	Water		Food energy	Protein	Fat	Carbohy- drate		Ash	Cal- cium	Phos- phor- us	Iron	Vitamin A value	Thia- mine	Riboflavin	Nico- tinic value	Ascor- bic acid	
		Pct.	Pct.				Gm.	Gm.										Gm.
FRUITS; VEGETABLES—Continued																		
VEGETABLES, RAW—Continued																		
187 Turnip (<i>Brassica rapa</i>):																		
a E.P., pared roots	0	90.9	32	1.1	0.2	7.1	1.1	0.7	40	34	0.5	Trace	0.05	0.07	0.5		28	
b A.P.; without tops; refuse, parings.	13	79.1	28	1.0	.2	6.1	1.0	.6	35	30	.4	0	.04	.06	.4		24	
c A.P.; with tops; refuse, top and parings.	34	60.0	21	.7	.1	4.7	.7	.5	26	22	.3	0	.03	.05	.3		18	
188 Turnip greens:																		
a E.P.	0	89.5	30	2.9	.4	5.4	1.2	1.8	259	50	2.4	9,540	.09	.46	.8		136	
b A.P.; refuse, discarded leaves	16	75.2	24	2.4	.3	4.5	1.0	1.5	218	42	2.0	8,010	.08	.39	.7		114	
189 Vegetablesponge (<i>Luffa</i> <i>egyptiaca</i>):																		
a E.P.	0	94.3	18	.8	.1	4.4	.5	.4	24	52	1.3	330	--	--	--		8	
b A.P.; refuse, parings	(15)	80.2	16	.7	.1	3.7	.4	.3	20	44	1.1	280	--	--	--		7	
190 Vinespinach (<i>Basella</i> spp.), E.P. Waterbamboc or Indian rice. See Wildrice shoots.	0	93.1	19	1.8	.3	3.4	.7	1.4	109	52	1.2	8,000	.05	--	.5		102	
191 Water cress (<i>Rorippa nasturtium- aquaticum</i>), E.P. Waternut or Matai. See Matai.	0	93.6	18	1.7	.3	3.3	.5	1.1	195	46	2.0	4,720	.08	.16	.8		77	
192 Waxgourd (<i>Benincasa hispida</i>):																		
a E.P.	0	96.1	13	.4	.2	3.0	.5	.3	19	19	.4	0	.04	.11	.4		13	
b A.P.; refuse, tough skin and cavity contents.	31	66.3	9	.3	.1	2.1	.3	.2	13	13	.3	0	.03	.08	.3		9	
193 Wildrice shoots (<i>Zizania</i> <i>aquatica</i>):																		
a E.P.	0	92.6	26	1.2	.2	5.5	1.0	.5	5	36	.6	0	.09	.04	.2		2	
b A.P.; refuse, inedible parts.	16	77.8	22	1.0	.2	4.6	.8	.4	4	30	.5	0	.08	.03	.2		2	
194 Wolfberry, Chinese, leaves (<i>Lycium chinense</i>), E.P.	0	87.8	33	4.3	.4	5.3	1.4	2.2	232	58	3.4	4,780	--	--	--		9	
195 Yam (<i>Dioscorea</i> spp.):																		
a E.P.	0	73.5	101	2.1	.2	23.2	.9	1.0	20	69	.6	Trace	.10	.04	.5		9	
b A.P.; refuse, skin	14	63.2	87	1.8	.2	20.0	.8	.9	17	59	.5	Trace	.09	.03	.4		8	
196 Yambean tuber (<i>Pachyrhizus</i> spp.):																		
a E.P.	0	85.1	55	1.4	.2	12.8	.7	.5	15	18	.6	Trace	.04	.03	.3		20	
b A.P.; refuse, parings	(16)	71.5	46	1.2	.2	10.8	.6	.4	13	15	.5	0	.03	.03	.3		17	

LEGUMES (PULSES); SEEDS AND NUTS:
SOYBEAN AND SOYBEAN PRODUCTS:

	0	7.5	331	34.9	18.1	1/34.8	5.0	4.7	227	586	8.0	110	1.07	.31	2.3	Trace
Soybean (Glycine max):																
197 Mature seeds, E.P.	0	67.0	119	12.5	6.5	1/12.5	1.5	1.5	79	265	3.3	700	.37	.15	1.4	30
(173) Immature seeds:																
a E.P.	47	35.5	62	6.6	3.4	1/6.6	.8	.8	42	140	1.7	370	.20	.08	.7	16
b A.P.; refuse, shell	0	8.7	410	35.7	18.3	1/32.7	5.9	4.6	195	562	4.3	140	.67	.28	1.7	--
198 Meal, ground whole beans	0	9.	347	35.9	20.6	1/29.9	2.3	4.6	195	544	8.4	140	.77	.28	2.2	(0)
199 Flour, full-fat																
Soybean products, E.P.:																
(174) Curd or tofu	0	85.1	71	7.0	4.1	3.0	.1	.8	100	95	1.5	--	.06	.05	.4	(0)
200 Milk, without added nutrients	0	92.5	33	3.4	1.5	2.1	.0	.5	21	47	.7	--	.09	.04	.3	(0)
201 Miso (soy paste), all kinds..	0	51.4	166	10.4	4.9	24.1	2.0	9.2	55	365	1.3	--	.05	--	--	--
202 Netto or fermented beans	0	56.6	147	18.4	7.5	11.9	3.5	5.6	103	182	3.7	--	--	--	--	0
203 Sauce	0	63.	46	5.7	1.3	9.0	0	21.0	123	96	5.7	0	--	--	--	0
(175) Sprouts	0	86.3	46	6.2	1.4	5.3	.8	.8	48	67	1.0	180	.23	.20	.8	13
OTHER LEGUMES, DRY: (See																
Vegetables, raw, for immature legumes.)																
204 Beans, broed (Vicia faba), including horse bean (Vicia faba var. equina), E.P.	0	12.2	338	25.4	1.7	57.8	7.8	2.9	95	322	6.5	130	.60	.26	2.5	5
205 Beans, hyacinth or field (Dolichos lablab), E.P.	0	11.8	338	22.2	1.5	61.0	6.8	3.5	88	395	3.5	--	.62	.20	2.3	--
206 Beans, red kidney (Phaseolus vulgaris), E.P.	0	12.2	336	23.1	1.7	59.4	3.5	3.6	163	437	6.9	(0)	.57	.22	2.5	2
Chickpeas (Cicer arietinum):																
207 Whole seeds, E.P.	0	10.6	359	20.8	4.7	60.9	5.3	3.0	162	344	8.4	90	.49	.18	1.6	Trace
208 Cowpeas (Vigna sinensis), E.P..	0	10.6	342	22.9	1.4	61.6	4.2	3.5	77	451	6.5	30	.92	.16	2.2	2
Lentils (Lens culinaris), E.P.:																
209 Whole (entire seeds)	0	11.2	337	25.0	1.0	59.5	3.7	3.3	59	423	7.4	90	.56	.24	2.2	5
210 Split (without seed coat) ...	0	12.2	339	24.0	1.2	60.4	1.7	2.2	34	292	7.4	90	.56	.24	2.2	5
Mung beans (Phaseolus aureus):																
211 Mature seeds, E.P.	0	11.0	339	24.4	1.4	59.7	4.5	3.5	91	320	6.3	40	.68	.21	2.0	3

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Approximately 40 percent of this total amount of carbohydrate calculated by difference is sugar, starch, and dextrin. The remaining portion is made up of materials thought to be utilized only poorly, if at all, by the body.

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref- use	Water		Food en- ergy	Pro- tein	Fat	Carbo- hydrate		Ash	Cal- cium	Phos- phorus	Iron	Vitamin A value	Thia- mine	Ribo- flavin	Nia- cin value	Ascor- bic acid
		Pct.	Cal.				Gm.	Gm.									
LEGUMES (PULSES); SEEDS AND NUTS--																	
Continued																	
OTHER LEGUMES; DRY--Continued																	
Peas (Pisum sativum):																	
Mature dry seeds, E.P.:																	
212	0	11.6	339	23.8	1.4	60.2	5.4	3.0	57	388	4.7	140	0.77	0.28	3.1	2	
213	0	10.0	344	24.5	1.0	61.7	1.2	2.8	33	268	5.1	140	.77	.28	3.1	2	
214	0	13.1	333	21.9	1.6	59.9	1.5	3.5	92	282	4.5	140	.47	.18	2.0	5	
SEEDS AND NUTS:																	
215 Almond (<i>Prunus amygdalus</i>), unblanched:																	
a	0	4.7	597	18.6	54.1	19.6	2.7	3.0	254	475	4.4	0	.25	.67	4.6	Trace	
b	49	2.4	305	9.5	27.6	10.0	1.4	1.5	130	242	2.2	0	.13	.34	2.3	Trace	
Chestnut (<i>Castanea spp.</i>):																	
216 Dried:																	
a	0	8.4	377	6.7	4.1	78.6	2.5	2.2	57	170	3.3	--	.34	.39	.8	--	
b	18	6.9	310	5.5	3.4	64.4	2.0	1.8	47	139	2.7	--	.28	.32	.7	--	
217 Fresh:																	
a	0	53.2	191	2.8	1.5	41.5	1.1	1.0	29	87	1.7	--	.23	.22	.5	--	
b	19	43.1	155	2.3	1.2	33.6	.9	.8	23	70	1.4	--	.19	.18	.4	--	
Coconut (<i>Cocos nucifera</i>):																	
218 Dried, E.P.																	
219 Fresh:																	
a	0	46.9	359	3.4	34.7	14.0	3.2	1.0	21	98	2.0	0	.10	.01	.2	2	
b	47	24.9	190	1.8	18.4	7.4	1.7	.5	11	52	1.1	0	.05	.01	.1	Trace	
220 Ginkgo seed (<i>Ginkgo biloba</i>):																	
a	0	12.4	349	12.2	2.7	69.9	.7	2.8	20	269	1.6	--	--	--	--	--	
b	41	7.3	206	7.2	1.6	41.2	.4	1.7	12	159	.9	--	--	--	--	--	
221 Lotus seeds (<i>Nelumbium nelumbo</i>):																	
a	0	10.0	351	17.2	2.4	66.6	2.6	3.8	136	294	2.3	--	--	--	--	--	
b	4	9.6	337	16.5	2.3	63.9	2.5	3.6	131	282	2.2	--	--	--	--	--	
Peanut (<i>Arachis hypogaea</i>):																	
222 Raw:																	
a	0	4.0	548	26.2	42.8	24.3	2.6	2.7	73	379	1.8	--	1.09	.13	15.6	--	
b	29	2.8	389	18.6	30.4	17.3	1.8	1.9	52	269	1.3	--	.77	.09	11.1	--	

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref-use	Water		Food energy	Protein	Fat	Carbo-hydrate		Ash	Calcium	Phosphorus	Iron	Vitamin A value	Thiamine	Riboflavin	Nicotinic value	Ascorbic acid
		Pct.	Pot.				Total	Fiber									
MEAT; POULTRY; FISH; EGGS--Continued																	
MEAT--Continued																	
263 Whale meat, E.P.	0	74.4	116	22.2	2.4	0	0	0	1.1	13	247	--	--	0.09	0.08	--	(0)
POULTRY:																	
Birds' nest, edible, E.P.																	
Chickens: 3/																	
Very young birds:																	
a E.P.	0	71.2	151	20.2	7.2	0	0	0	1.1	14	200	1.5	230	.08	.16	10.2	(0)
b A.P., live	51	34.9	74	9.9	3.5	0	0	0	.5	7	98	.7	110	.04	.08	5.0	(0)
c A.P., dressed	45	39.2	83	11.1	4.0	0	0	0	.6	8	110	.8	130	.04	.09	5.6	(0)
d A.P., ready-to-cook	25	53.4	114	15.2	5.4	0	0	0	.8	10	150	1.1	170	.06	.12	7.6	(0)
Young birds, over 3-1/2 pounds:																	
a E.P.	0	66.0	200	20.2	12.6	0	0	0	1.0	14	200	1.5	410	.08	.16	8.0	(0)
b A.P., live	46	35.6	108	10.9	6.8	0	0	0	.5	8	108	.8	220	.04	.09	4.3	(0)
c A.P., dressed	39	40.3	122	12.3	7.7	0	0	0	.6	9	122	.9	250	.05	.10	4.9	(0)
d A.P., ready-to-cook	23	50.8	154	15.6	9.7	0	0	0	.8	11	154	1.2	320	.06	.12	6.2	(0)
Mature birds:																	
a E.P.	0	55.9	302	18.0	25.0	0	0	0	1.1	14	200	1.5	810	.08	.16	8.0	(0)
b A.P., live	42	32.4	175	10.4	14.5	0	0	0	.6	8	116	.9	470	.05	.09	4.6	(0)
c A.P., dressed	36	35.8	193	11.5	16.0	0	0	0	.7	9	128	1.0	520	.05	.10	5.1	(0)
d A.P., ready-to-cook	20	44.7	242	14.4	20.0	0	0	0	.9	11	160	1.2	650	.06	.13	6.4	(0)
Young birds, cut-up pieces:																	
Breast:																	
a E.P.	0	74.9	104	23.3	.5	0	0	0	1.2	14	212	1.1	20	.07	.09	10.5	(0)
b A.P.; refuse, bones	24	56.9	79	17.7	.4	0	0	0	.9	11	161	.8	10	.05	.07	8.0	(0)
Leg:																	
a E.P.	0	74.5	112	20.5	2.7	0	0	0	1.1	15	188	1.8	90	.10	.24	5.6	(0)
b A.P.; refuse, bones	23	57.4	86	15.8	2.1	0	0	0	.8	12	145	1.4	70	.08	.18	4.3	(0)
270 Duck, domesticated:																	
a E.P., flesh, skin, giblets, and most fat.	0	54.3	326	16.0	28.6	0	0	0	1.0	15	188	1.8	--	.10	.24	5.6	(0)
b A.P., dressed	36	34.8	209	10.2	18.3	0	0	0	.6	10	120	1.2	--	.06	.15	3.6	(0)
c A.P., drawn	16	45.6	274	13.4	24.0	0	0	0	.8	13	158	1.5	--	.08	.20	4.7	(0)
271 Duck, dried, salted, E.P.	0	35.	413	20.3	36.2	0	0	0	8.4	19	238	2.3	--	.10	.27	6.1	(0)

Gizzard, E.P.:																
272	Chicken	0	74.5	116	21.1	2.6	.7	0	1.1	--	--	--	--	--		
273	Duck	0	73.3	127	21.3	3.7	.6	0	1.1	--	--	--	--	--		
274	Goose	0	73.0	139	21.4	5.3	0.	0	1.0	--	--	--	--	--		
275	Turkey	0	66.6	188	20.5	10.6	1.3	0	1.0	--	--	--	--	--		
Goose, domesticated:																
a	E.P., flesh, skin, and giblets.	0	51.1	354	16.4	31.5	0.	0	.9	15	188	1.8	.10	.24	5.6	(0)
b	A.P., dressed	41	30.1	209	9.7	18.6	0.	0	.5	9	111	1.1	.06	.14	3.3	(0)
c	A.P., drawn	10	46.0	319	14.8	28.4	0.	0	.8	14	169	1.6	.09	.21	5.1	(0)
277 Squab (pigeon):																
a	E.P., flesh, skin, and giblets.	0	58.0	279	18.6	22.1	0.	0	1.5	17	411	1.8	.10	.24	5.6	(0)
b	A.P., dressed	40	34.8	168	11.2	13.3	0.	0	.9	10	247	1.1	.06	.14	3.4	(0)
278 Turkey, medium-fat birds:																
a	E.P., flesh, skin, giblets, and fat.	0	58.3	268	20.1	20.2	0.	0	1.0	23	320	3.8	.09	.14	8.0	(0)
b	A.P., live	39	35.6	163	12.3	12.3	0.	0	.6	14	195	2.3	.05	.09	4.9	(0)
c	A.P., dressed	33	39.1	179	13.5	13.5	0.	0	.7	15	214	2.5	.06	.09	5.4	(0)
d	A.P., drawn	19	47.2	218	16.3	16.4	0.	0	.8	19	259	3.1	.07	.11	6.5	(0)
FISH AND SHELLFISH:																
Abalone, edible muscle only, E.P. or A.P.:																
279	Raw	0	74.0	107	21.7	.5	2.4	0	1.4	37	191	(2.4)	.18	.14	(1.4)	--
280	Canned	0	80.2	80	16.0	.3	2.3	0	1.2	14	128	(1.8)	.12	.12	(1.2)	--
281	Dried	0	22.1	309	40.6	1.9	28.8	0	6.6	170	442	(7.1)	.41	.37	(3.6)	--
282 Carp:																
a	E.P.	0	77.9	98	18.2	2.2	0.	0	1.2	50	269	.9	.01	.04	1.5	Trace
b	A.P.	41	46.0	57	10.7	1.3	0.	0	.7	30	159	.5	.01	.02	.9	Trace
283 Clams:																
a	Long and round, meat only, E.P.	0	80.3	81	12.8	1.4	3.4	--	2.1	(96)	(139)	(7.0)	.10	.18	(1.6)	--
b	Long clam, A.P.; refuse, shell and liquid.	65	28.1	29	4.5	.5	1.2	--	.7	(34)	(49)	(2.4)	.04	.06	(.6)	--
c	Round clam, A.P.; refuse, shell and liquid.	83	13.7	14	2.2	.2	.6	--	.4	(16)	(24)	(1.2)	.02	.03	(.3)	--

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

- 1/ No information is available on the digestibility of the carbohydrate present which may be bound largely as a glycoprotein, and calories, therefore, have been omitted here.
- 2/ Nutritional value of protein is poor as it is deficient in several essential amino acids, especially lysine.
- 3/ Minerals and B vitamins are based on flesh only.

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref-use	Water		Food energy		Protein	Fat	Carbo-hydrate		Ash	Calcium	Phosphorus	Iron	Vitamin A	Thiamine	Riboflavin	Nicotinic value	Ascorbic acid
		Pct.	Pct.	Cal.	Cal.			Total	Fiber									
MEAT; POULTRY; FISH; EGGS--Continued																		
FISH AND SHELFISH--Continued																		
Cod:																		
284	Fresh:																	
a	E.P.	0	82.6	74	16.5	0.4	0	0	1.2	10	194	0.4	0	0.06	0.09	2.2	2	
b	A.P., dressed	31	57.0	51	11.4	.3	0	0	.8	7	134	.3	0	.04	.06	1.5	1	
c	A.P., whole	52	39.6	36	7.9	.2	0	0	.6	5	93	.2	0	.03	.04	1.1	1	
285	Dried, E.P.	0	12.3	375	81.8	2.8	0	0	7.0	(50)	891	3.6	0	.08	.45	10.9	(0)	
286	Salted, E.P.	0	52.4	130	29.0	.7	0	0	19.7	8	146	.3	0	.02	.07	1.6	(0)	
Crab, hard-shell:																		
287	Raw:																	
a	E.P.	0	80.0	86	16.1	1.6	.6	--	1.7	(39)	(160)	(.8)	--	.14	.06	2.7	--	
b	A.P.; refuse, shell	52	38.4	41	7.7	.8	.3	--	.8	(19)	(77)	(.4)	--	.07	.03	1.3	--	
288	Canned or cooked	0	77.2	104	16.9	2.9	1.3	--	1.7	45	182	.9	--	(.05)	(.06)	(2.5)	--	
289	Croaker:																	
a	E.P.	0	77.4	96	17.8	2.2	0	0	1.3	--	--	--	--	.16	.06	(1.8)	--	
b	A.P., whole	66	26.3	32	6.1	.7	0	0	.4	--	--	--	--	.05	.02	(.6)	--	
290	Eel:																	
a	E.P.	0	71.6	162	18.6	9.1	0	0	1.0	18	202	.7	1,800	.28	.37	1.4	--	
b	A.P., head, skin, and entrails removed.	24	54.4	122	14.1	6.9	0	0	.8	14	154	.5	1,370	.21	.28	1.1	--	
291	Flounder:																	
a	E.P.	0	82.7	68	14.9	.5	0	0	1.3	12	195	.8	--	.06	.05	1.7	--	
b	A.P., entrails removed	59	33.9	28	6.1	.2	0	0	.5	5	80	.3	--	.02	.02	.7	--	
c	A.P., whole	61	32.3	27	5.8	.2	0	0	.5	5	76	.3	--	.02	.02	.7	--	
292	Frog leg:																	
a	E.P.	0	81.9	73	16.4	.3	0	0	1.1	18	147	1.1	0	.14	.25	1.2	--	
b	A.P.; refuse, bones	35	53.2	47	10.7	.2	0	0	.7	12	96	.7	0	.09	.16	.8	--	
293	Herring, Pacific, E.P.:																	
	Flesh only	0	79.6	94	16.6	2.6	0	0	1.3	--	187	.6	100	.02	.22	(2.2)	--	
294	Brined or salted:																	
a	E.P.	0	58.1	186	19.6	11.3	0	0	12.0	--	140	.4	(100)	(.02)	(.16)	(1.6)	--	
b	A.P.	36	37.2	118	12.5	7.2	0	0	7.7	--	90	.3	(60)	(.01)	(.10)	(1.0)	--	
295	Lobster:																	
	Raw:																	
a	E.P.	0	79.2	88	16.2	1.9	.5	0	2.2	61	184	.6	--	(.13)	.06	(1.9)	--	
b	A.P., whole	64	28.5	32	5.8	.7	.2	0	.8	22	66	.2	--	(.05)	.03	(.7)	--	

296	Canned, E.P.	0	77.2	92	18.4	1.3	.4	0	2.7	65	192	.8	--	(.03)	.07	(2.2)	--
	Mackerel, Pacific:																
297	Raw:																
a	E.P.	0	69.8	159	21.9	7.3	0.	0	1.4	--	274	2.1	120	(.15)	(.35)	(8.4)	--
b	A.P.; refuse, bones	28	50.3	115	15.8	5.3	0.	0	1.0	--	197	1.5	90	(.11)	(.25)	(6.0)	--
298	Canned, total contents of can, E.P.	0	66.4	180	21.1	10.0	0.	0	2.5	260	288	2.2	30	.03	.33	8.8	--
	Oyster, meat only, E.P.:																
299	Raw	0	80.5	84	9.8	2.1	5.6	--	2.0	94	143	5.6	320	.15	.20	1.2	--
300	Dried	0	18.	352	41.2	8.8	23.6	--	8.4	395	601	23.5	1,350	.47	.76	4.2	--
	Salmon, Pacific:																
301	Raw, Chinook or King:																
a	E.P.	0	63.4	223	17.4	16.5	0.	0	1.0	--	(289)	(.9)	310	.10	.23	7.2	9
b	A.P.; refuse, bones and skin.	11	56.4	199	15.5	14.7	0.	0	.9	--	(257)	(.8)	280	.09	.20	6.4	8
	Canned, total contents of can, including bones, E.P.:																
302	Chinook or King	0	64.7	203	19.7	13.2	0.	0	2.4	154	289	.9	230	.03	.14	7.3	(0)
303	Chum	0	70.8	139	21.5	5.2	0.	0	2.6	249	352	.7	60	.02	.16	7.1	(0)
304	Coho or silver	0	67.6	166	21.1	8.4	0.	0	1.7	232	254	.9	80	.03	.18	7.4	(0)
305	Pink or humpback	0	70.0	143	20.5	6.2	0.	0	2.6	187	286	.8	70	.03	.18	8.0	(0)
306	Sockeye or red	0	67.2	173	20.2	9.6	0.	0	3.0	259	344	1.2	230	.04	.16	7.3	(0)
	Sardine:																
307	Atlantic type, canned in oil:																
a	E.P., total contents of can	0	47.1	338	21.1	27.0	1.0	--	3.9	354	434	3.5	--	(.01)	(.14)	(3.9)	(0)
b	E.P., drained solids	0	57.4	214	25.7	11.0	1.2	--	(4.7)	386	586	2.7	220	.02	.17	4.8	(0)
c	A.P.; refuse, oil	18	47.1	175	21.1	9.0	1.0	--	(3.9)	317	481	2.2	180	.02	.14	3.9	(0)
	Pacific type, canned, total contents of can, E.P.:																
308	Natural pack	0	65.2	200	17.7	13.5	.7	0	2.9	(381)	(168)	4.1	(30)	(.01)	(.30)	(7.4)	(0)
309	Tomato sauce	0	63.1	216	17.8	14.8	1.7	.2	2.7	381	168	4.1	30	.01	.27	5.3	(0)
	Scallop, edible muscle, E.P.:																
310	Raw	0	80.3	78	14.8	.1	3.4	0	1.4	26	208	1.8	0	(.04)	.10	1.4	--
311	Dried	0	13.6	341	64.6	1.8	12.0	0	8.0	114	912	7.9	0	(.13)	.40	5.2	--
312	Shark's fin, dried:																
a	E.P.	0	8.8	384	89.4	.2	.1	0	1.5	111	141	--	--	--	--	--	--
b	A.P.	22	6.9	300	69.7	.2	.1	0	1.2	87	110	--	--	--	--	--	--

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

TABLE 3.--Composition of foods, 100 grams, edible portion, and as purchased--Continued

Food and description	Ref- use	Water	Food en- ergy	Pro- tein	Fat	Carbo- hydrate		Ash	Cal- cium	Phos- phor- us	Iron	Vitamin A value	Thia- mine	Ribo- flavin	Nia- cin value	Ascor- bic acid	
						Total	Fiber										
	Pct.	Pct.	Cal.	Gm.	Gm.	Gm.	Gm.	Gm.	Mg.	Mg.	Mg.	I.U.	Mg.	Mg.	Mg.	Mg.	
MEAT; POULTRY; FISH; EGGS--Continued																	
FISH AND SHELLFISH--Continued																	
Shrimp:																	
313 Fresh:																	
a E.P., shelled	0	79.8	84	17.9	0.8	0.1	0	1.4	63	166	1.6	(60)	0.05	0.14	2.2	(0)	
b A.P., with shell	59	32.7	34	7.3	.3	.0	0	.6	26	68	.7	(30)	.02	.06	.9	(0)	
314 Dried, E.P.	0	20.7	295	62.4	2.3	1.8	0	12.8	247	652	6.3	(210)	(.14)	(.43)	(6.5)	(0)	
Squid, E.P.:																	
315 Raw	0	80.2	78	16.4	.9	--	0	1.0	12	119	.5	--	.02	.12	(1.4)	--	
316 Dried	0	21.7	305	62.3	4.3	--	0	6.9	46	471	2.0	--	.06	.42	4.7	--	
Tuna fish, canned, E.P.:																	
317 Total contents of can	0	52.5	290	23.8	20.9	0.	0	2.3	7	294	1.2	(220)	(.04)	(.10)	(10.8)	(0)	
318 Drained solids	0	60.0	198	29.0	8.2	0.	0	2.7	(8)	(351)	1.4	80	.05	.12	12.8	(0)	
EGGS:																	
Duck:																	
319 Raw:																	
a E.P.	0	70.8	189	13.1	14.3	.8	0	1.0	56	195	2.8	1,230	.18	(.29)	(.1)	(0)	
b A.P.; refuse, shell	11	63.0	168	11.7	12.7	.7	0	.9	50	173	2.5	1,100	.16	(.26)	(.1)	(0)	
320 Lined:																	
a E.P.	0	67.2	201	13.9	15.2	.9	0	2.8	56	206	2.0	--	--	--	--	--	
b A.P.; refuse, shell	12	59.1	177	12.2	13.4	.8	0	2.5	49	181	1.8	--	--	--	--	--	
Hen:																	
321 Whole:																	
a E.P.	0	74.0	162	12.8	11.5	.7	0	1.0	54	210	2.7	1,140	.10	.29	.1	0	
b A.P.; refuse, shell	11	65.9	144	11.4	10.2	.6	0	.9	48	187	2.4	1,020	.09	.26	.1	0	
322 White, E.P.	0	87.8	50	10.8	0.	.8	0	.6	6	17	.2	(0)	0	.26	(.1)	0	
323 Yolk, E.P.	0	49.4	361	16.3	31.9	.7	0	1.7	147	586	7.2	3,210	.27	.35	Trace	0	
Dried, E.P.:																	
324 Whole	0	5.	592	46.8	42.0	2.5	0	3.6	190	767	8.8	3,740	.34	1.06	.2	0	
325 White	0	3.	398	85.9	0.	6.3	0	4.8	48	135	1.6	0	0	2.05	.7	0	
326 Yolk	0	3.	693	31.2	61.2	1.3	0	3.3	262	1,123	13.8	5,540	.50	.66	.1	0	
MILK AND MILK PRODUCTS:																	
327 Cream (20 percent butterfat) ..	0	72.5	204	2.9	20.0	4.0	0	.6	97	77	.1	830	.03	.14	.1	1	
328 Ice cream, plain, E.P.	0	62.1	207	4.0	12.5	20.6	0	.8	123	99	.1	520	.04	.19	.1	1	
Milk, fluid, E.P.:																	
329 Buffalo and carabao	0	82.2	106	4.7	7.9	4.4	0	.8	164	99	.2	130	.04	--	.1	(1)	

330	Cow:	3.5 percent fat	0	87.0	66	3.7	3.5	5.1	0	.7	123	97	.1	.04	.18	.1	1
331		3.0 percent fat	0	87.0	63	3.8	3.0	5.4	0	.8	130	102	.1	.04	.19	.1	1
332		Nonfat (skim)	0	90.5	36	3.5	.1	5.1	0	.8	123	97	.1	.04	.18	.1	1
333		Buttermilk, cultured (made from almost completely skimmed milk, undiluted).	0	90.5	36	3.5	.1	5.1	0	.8	123	97	.1	.04	.18	.1	1
334	Goat	.....	0	87.4	67	3.3	4.0	4.6	0	.7	129	106	.1	.04	.11	.3	1
(200)	Soybean milk, without added nutrients.	.....	0	92.5	33	3.4	1.5	2.1	.0	.5	21	47	.7	.09	.04	.3	(0)
335	Milk, canned, cow, E.P.:	Evaporated, unsweetened, from U.S.A. or U.K.	0	73.7	138	7.0	7.9	9.9	0	1.5	243	195	.2	.05	.36	.2	1
336	Condensed, sweetened:	From U.S.A.	0	27.	320	8.1	8.4	54.8	0	1.7	273	228	.2	.05	.39	.2	1
337		From U.K.	0	25.	336	8.2	10.	55.	0	1.8	275	229	.2	.05	.39	.2	1
338	Milk, dried, cow, E.P.:	Whole:	0	3.5	492	25.8	26.7	38.0	0	6.0	949	728	.6	.30	1.46	.7	6
339		From U.S.A.	0	3.5	509	24.6	30.	36.2	0	5.7	904	694	.6	.29	1.39	.7	6
340		From Australia	0	3.5	362	35.6	1.0	52.0	0	7.9	1,300	1,030	.6	.35	1.96	1.1	7
341		Nonfat milk solids (skim) ..	0	68.1	123	1.5	.0	30.0	--	.4	50	40	.0	.02	.08	Trace	(0)
342		Sherbet	0	15.5	716	.6	81.	.4	0	2.5	20	16	.0	--	--	--	0
343	OILS AND FATS:	Butter (from U.S.A.)	0	8.	804	0.	91.5	0	0	Trace	Trace	Trace	--	--	--	--	--
344		Ghee:	0	.5	870	0.	99.	0	0	Trace	Trace	Trace	--	--	--	--	--
345		High moisture	0	15.5	720	.6	81.	.4	0	2.5	20	16	.0	--	--	--	(0)
346		Low moisture	0	0.	902	0.	100.	0.	0	0	0	0	0	0	0	0	0
347		Margarine (from U.S.A.)	0	0.	884	0.	100.	0.	0	0	0	0	0	--	--	--	--
348		Lard	0	0.	884	0.	100.	0.	0	0	0	0	0	0	0	0	0
		Oil, red-palm, unrefined	0	0.	884	0.	100.	0.	0	0	0	0	0	0	0	0	0
		Oil, salad or cooking, all other kinds.	0	0.	884	0.	100.	0.	0	0	0	0	0	0	0	0	0
349	SUGARS AND SIRUPS:	Honey	0	20.	294	.3	0.	79.5	--	.2	5	16	.9	Trace	.04	.2	4
350		Molasses, blackstrap	0	24.	213	--	--	3/55.	--	4/10.5	579	85	11.3	.12	.18	1.6	--

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Based on the average vitamin A content of fortified margarine. Most of the margarines manufactured for use in the United States have 15,000 I.U. of vitamin A added per pound. The minimum Federal specifications for fortified margarine require the addition of 9,000 I.U. of vitamin A per pound.

2/ Values used to derive this average ranged from 1,230 to 41,940 I.U. vitamin A value. Values for refined red-palm oil are much lower.

3/ Total sugars.

4/ Sulfated ash. This overestimates the ash in the range of 8 to 20 percent.

TABLE 3.—Composition of foods, 100 grams, edible portion, and as purchased—Continued

Food and description	Ref-use		Water		Food energy		Protein		Fat		Carbo-hydrate		Ash		Calcium		Phosphorus		Iron		Vitamin A value		Thiamine		Riboflavin		Nicotin value		Ascorbic acid			
	Pot.	Use	Pot.	Cal.	Gm.	Gm.	Gm.	Gm.	Total	Fiber	Gm.	Gm.	Gm.	Gm.	Mg.	Mg.	Mg.	Mg.	I.U.	Mg.	Mg.	Mg.	Mg.	Mg.	Mg.	Mg.	Mg.	Mg.	Mg.			
SUGARS AND SIRUPS--Continued																																
Sugar:																																
351	0		3.	370	(0.)	95.5	--	1.2	1/76	1/37	2.6	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	
352	0		.5	385	(0.)	99.5	(0)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
Sugarcane (Saccharum officinarum):																																
353	--		74.7	48	--	24.4	12.1	.5	15	10	1.0	20	.04	.02	.04	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	.02	
354	0		85.2	55	.2	14.1	--	.5	19	27	1.2	10	.02	.01	.02	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01	
Sirups:																																
355	0		27.	259	--	(67.)	--	1.5	60	29	3.6	--	.13	.06	.13	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	.06	
356	0		23.	259	--	(67.)	--	2.5	152	24	12.5	--	--	.10	--	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	.10	
MISCELLANEOUS:																																
357	0		90.2	3/	.6	4.4	--	.2	4	26	.0	(0)	Trace	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	.03	
Beer (average 4 percent alcohol).																																
Chocolate, E.P.:																																
358	0		2.3	504	(5.5)	4/29.2	2.6	3.2	5/98	446	(4.4)	60	.05	.24	.05	.24	.05	.24	.05	.24	.05	.24	.05	.24	.05	.24	.05	.24	.05	.24	.05	.24
359	0		1.4	472	(2.)	62.7	1.4	1.4	5/(63)	(287)	2.8	(30)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)	(.03)	(.15)
360	0		3.9	298	(8.)	4/48.9	4.6	5.0	5/125	712	11.6	(30)	.12	.38	.12	.38	.12	.38	.12	.38	.12	.38	.12	.38	.12	.38	.12	.38	.12	.38	.12	.38
Cocoa, breakfast, dry powder, E.P.																																
361	0		69.5	98	2.0	24.5	.4	3.6	12	18	.8	(1,800)	.09	.07	.09	.07	.09	.07	.09	.07	.09	.07	.09	.07	.09	.07	.09	.07	.09	.07	.09	.07
362	0		--	12	0.	(5.0)	(0)	.3	7	10	.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Note: Parentheses indicate imputed value; dashes indicate inadequate basis for deriving data.

1/ Calcium and phosphorus are based on dark brown sugar; values would be lower for light brown sugar.

2/ The proportion of the nutrients swallowed is uncertain. For purposes of the calorie calculation, it has been assumed that only sugars (12.3 percent) are extracted and the cane sugar calorie factor, 3.87, applied.

3/ The potential energy of alcohol probably is not equally utilized in various physiological processes such as growth, muscular activity, and maintenance of body temperature. The energy value of beer would be about 20 calories if the energy from alcohol were completely discounted and a maximum of about 48 calories if the energy value of alcohol were discounted only for small respiratory and excretory losses.

4/ Approximately one-third of this total amount of carbohydrate calculated by difference is starch and sugar. The remaining portion is made up of materials thought to be utilized only poorly, if at all, by the body.

5/ Calcium may not be available because of presence of oxalic acid.

Index to Scientific Names of Plant Foods in Table 3

Scientific Name	Common Name	Item No.	Scientific Name	Common Name	Item No.
<i>Achras zapota</i>	Sapodilla	91	<i>Carica papaya</i>	Papaya	77
<i>Agaricus campestris</i>	Mushroom, common ..	151	<i>Castanea</i> spp.	Chestnut	216,217
<i>Allium cepa</i>	Onion, common	154	<i>Cedrela sinensis</i>	Cedar	123
<i>Allium fistulosum</i>	Onion, welsh	156	<i>Chrysanthemum</i>	<i>Chrysanthemum</i>	129
<i>Allium odorum</i>	Onion, fragrant ...	155	<i>coronarum</i> var.		
<i>Allium porrum</i>	Leak	145	<i>Cicer arietinum</i>	Chickpeas	207
<i>Allium sativum</i>	Garlic	139	<i>Citrullus vulgaris</i>	Watermelon	99
<i>Allium schoenoprasum</i> ...	Chives	128	<i>Citrus aurantifolia</i> ...	Lime	60
<i>Amaranthus</i> spp.	Amaranth	100	<i>Citrus aurantium</i>	Orange, sour	76
<i>Ananas comosus</i>	Pineapple	82-84	<i>Citrus grandis</i>	Pummelo	89
<i>Annona muricata</i>	Soursop	93	<i>Citrus limon</i>	Lemon	59
<i>Annona reticulata</i>	Bullocksheart custardapple.	43	<i>Citrus reticulata</i>	Orange, mandarin ..	75
<i>Annona squamosa</i>	Sugarapple	95	.... Do	Tangerine	97,98
<i>Apium graveolens</i>	Celery	124,125	<i>Citrus sinensis</i>	Orange, sweet	71-74
<i>Arachis hypogaea</i>	Peant	222,223	<i>Cocos nucifera</i>	Cocunut	218,219
<i>Arctium lappa</i>	Burdock	115	<i>Colocasia</i> spp.	Taro	182,183
<i>Armoracia rusticana</i>	Horseradish	141	<i>Coriandrum sativum</i>	Coriander	131
<i>Artocarpus altilis</i>	Breadfruit	42	<i>Crataegus pinnatifida</i> ..	Hawthorn, Chinese..	54
<i>Artocarpus heterophyllus</i>	Jakfruit	55	<i>Cucumis melo</i>	Muskmelon	69,70
<i>Asparagus officinalis</i> ..	Asparagus	103	<i>Cucumis melo</i>	Cantaloup	44
<i>Aster amellus</i>	Aster	104	<i>cantalupensis</i> .		
<i>Avena sativa</i>	Oats	13	<i>Cucumis sativus</i>	Cucumber	134
<i>Averrhoa carambola</i>	Carambola	45	<i>Cucurbita maxima</i>	Squash, winter	179
<i>Bambusa</i> spp.	Bamboo shoot	106	<i>Cucurbita pepo</i>	Pumpkin	164
<i>Basella</i> spp.	Vinespinach	190	.... Do	Pumpkin seed	224
<i>Benincasa hispida</i>	Waxgourd	192	.... Do	Squash, summer	178
<i>Beta vulgaris</i>	Beet	111,112	<i>Cyphomandra betacea</i> ...	Treetomato	186
<i>Beta vulgaris</i> var. <i>cicla</i>	Chard	126	<i>Daucus carota</i>	Carrot	120
<i>Brassica chinensis</i>	Cabbage, Chinese or Pakchoi.	117	<i>Dioscorea</i> spp.	Yam	195
<i>Brassica juncea</i>	Mustard greens	152	<i>Diospyros kaki</i>	Persimmon	81
<i>Brassica napobrassica</i> ..	Rutabaga	168	<i>Dolichos lablab</i>	Beans, hyacinth ...	108,205
<i>Brassica oleracea</i> var. <i>acephala</i> .	Collard	130	<i>Durio zibethinus</i>	Durian	47
<i>Brassica oleracea</i> var. <i>botrytis</i> .	Kale	142	<i>Eleocharis dulcis</i>	Matai	149
<i>Brassica oleracea</i> var. <i>capitata</i> .	Broccoli	113	<i>Eleocharis tuberosa</i> ...	.... do	149
<i>Brassica oleracea</i> var. <i>gemmifera</i> .	Cauliflower	122	<i>Eleusine coracana</i>	Ragimillet	12
<i>Brassica oleracea</i> var. <i>gongylodes</i> .	Cabbage, common ...	118	<i>Eriobotrya japonica</i> ...	Loquat	63
<i>Brassica pekinensis</i>	Brussels sprouts ..	114	<i>Eugenia uniflora</i>	Pitanga	85
<i>Brassica rapa</i>	Kohlrabi	143	<i>Euphoria longan</i>	Longan	61,62
<i>Cajanus cajan</i>	Cabbage, celery or Petsai.	116	<i>Fagopyrum esculentum</i> ..	Buckwheat	3,4
<i>Calocarpum sapota</i>	Turnip	187,188	<i>Ficus carica</i>	Fig	48
<i>Capsella bursa-pastoris</i> ..	Pigeonpeas	162,214	<i>Foeniculum vulgare</i>	Fennel, common	137
<i>Capsicum frutescens</i>	Sapote	92	<i>Fortunella</i> spp.	Kumquat	58
	Shepherdspurse	172	<i>Fragaria</i> spp.	Strawberry	94
	Pepper	161	<i>Garcinia mangostana</i> ...	Mangosteen	68
			<i>Gelidium</i> spp.	Seaweed, Agar	169
			<i>Ginkgo biloba</i>	Ginkgo seed	220
			<i>Glycine max</i>	Soybean	173-175,
			.... Do .....	.... do	197-203
			<i>Hibiscus esculentus</i> ...	Okra	153
			<i>Hordeum vulgare</i>	Barley	2

Index to Scientific Names of Plant Foods in Table 3--Continued

Scientific Name	Common Name	Item No.	Scientific Name	Common Name	Item No.
<i>Ipomoea batatas</i>	Sweetpotato	181	<i>Portulaca oleracea</i>	Purslane	165
<i>Ipomoea reptans</i>	Swamp cabbage	180	<i>Prunus amygdalus</i>	Almond	215
<i>Juglans regia</i>	Walnut, Persian or English.	227	<i>Prunus armeniaca</i>	Apricot	40
<i>Lectuca sativa</i>	Lettuce	146,147	<i>Prunus domestica</i>	Plum	87
<i>Lectuca serriola</i> .....	.... do	—	<i>Prunus persica</i>	Peach	78,79
<i>Legenaria leucantha</i>	Calabash	119	<i>Prunus spp.</i>	Cherry	46
<i>Laminaria spp.</i>	Seaweed, Kelp	170	<i>Psaliota campestris</i>	Mushroom	—
<i>Lens culinaris</i>	Lentils	209,210	<i>Psidium guajava</i>	Guava, common	53
<i>Lepidium sativum</i>	Garden cress	138	<i>Pueraria thunbergiana</i> ..	Kudzu	144
<i>Litchi chinensis</i>	Lychee	64,65	<i>Punica granatum</i>	Pomegranate	88
<i>Luffa acutangula</i>	Towelgourd	185	<i>Pyrus spp.</i>	Pear	80
<i>Luffa aegyptiaca</i>	Vegetablesponge ...	189	<i>Raphanus sativus</i>	Radish	166
<i>Lycium chinense</i>	Wolfberry, Chinese.	194	<i>Raphanus sativus</i> var. longipinnatus.	Radish, Chinese ...	167
<i>Lycopersicon esculentum</i> .	Tomato	184	<i>Rorippa nasturtium-aquaticum</i> .	Water cress	191
<i>Malus spp.</i>	Apple	39	<i>Saccharum officinarum</i> ...	Sugarcane	353,354
<i>Mammea americana</i>	Mamey or Mamee-apple.	66	<i>Sagittaria sagittifolia</i> .	Arrowhead	101
<i>Mangifera indica</i>	Mango	67	<i>Secale cereale</i>	Rye	21-24
<i>Manihot esculenta</i>	Cassava	5,121	<i>Sechium edule</i>	Chayote	127
<i>Maranta arundinacea</i>	Arrowroot	1,102	<i>Sesamum indicum</i>	Sesame seeds	225
<i>Metroxylon spp.</i>	Sagopalm	25	<i>Setaria italica</i>	Foxtail millet	9
<i>Momordica charartia</i>	Balsampear	105	<i>Solanum melongena</i>	Eggplant	136
<i>Musa nana</i>	Banana, dwarf	—	<i>Solanum tuberosum</i>	Potato	163
<i>Musa paradisiaca</i>	Plantain	86	<i>Sorghum vulgare</i>	Kaoliang	6
<i>Musa paradisiaca</i> var. sapiantum.	Banana, common	41	.... Do	Sorghum	26
<i>Nelumbium nelumbo</i>	Lotus root	148	<i>Spinacia oleracea</i>	Spinach	176
.... Do	Lotus seeds	221	<i>Syzygium jambos</i>	Roseapple	90
<i>Oryza sativa</i>	Rice	14-19	<i>Tamarindus indica</i>	Tamarind	96
.... Do	Rice, glutinous ...	20	<i>Taraxacum spp.</i>	Dandelion greens ..	135
<i>Pachyrhizus spp.</i>	Yambean tuber	196	<i>Tetragonia expansa</i>	Spinach, New Zealand	177
<i>Panicum miliaceum</i>	Proso-millet	11	<i>Trapa bispinosa</i>	Singharanut	226
<i>Passiflora spp.</i>	Granadilla	49	<i>Triticum aestivum</i>	Wheat	28-38
<i>Pastinaca sativa</i>	Parsnip	158	<i>Vicia faba</i>	Beans, broad	107,204
<i>Pennisetum glaucum</i>	Pearlmillet	10	<i>Vicia faba</i> var. equina..	Beans, horse bean..	204
<i>Petroselinum hortense</i> ..	Parsley	157	<i>Vigna sesquipedalis</i>	Beans, yard-long ..	133
<i>Phaseolus aureus</i>	Mung bean	150,211	<i>Vigna sinensis</i>	Cowpeas	208
<i>Phaseolus lunatus</i> var. macrocarpus.	Beans, lima	109	<i>Vigna spp.</i> .....	.... do	133
<i>Phaseolus vulgaris</i>	Beans, red kidney..	206	<i>Vitis spp.</i>	Grape	50,51
.... Do	Beans, snap	110	<i>Volvaria diplasia</i>	Mushroom	—
<i>Phyllostachys spp.</i>	Bamboo shoot	106	<i>Volvaria esculenta</i> .....	.... do	—
<i>Physalis spp.</i>	Groundcherry	52	<i>Volvaria volvacea</i> .....	.... do	—
<i>Pisum sativum</i>	Peas, garden	160,212	<i>Zea mays</i>	Maize	7,8
.... Do .....	.... do	213	.... Do	Corn, sweet	132
<i>Pisum sativum</i> var. macrocarpon.	Peas, edible-podded	159	<i>Zingiber officinale</i>	Ginger root	140
<i>Porphyra laciniata</i>	Seaweed, Laver	171	<i>Zizania aquatica</i>	Wildrice shoots ...	193
			<i>Zizyphus jujuba</i>	Jujube	56,57

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