

NUTRITIVE VALUE OF SOME FOODSTUFFS PROCESSED IN THE PHILIPPINES

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(Received for publication, April 1, 1964.)

A foodstuff, before reaching the consumer's table, undergoes several processing steps not only to make it edible but also to preserve it as well as to improve its quality in terms of flavor, color and texture. These steps, though necessary, are known to affect its nutritive value directly or indirectly, depending on the nature of the food, the specific nutrient, the method, the temperature and length of time of processing and storage, as well as other environmental factors.

A review⁽¹¹⁾ of literature on the effect of processing on the nutritive value of foods has shown that vitamins and proteins are the nutrients most severely affected. Holman⁽¹²⁾ thoroughly discusses the distribution of vitamins within the tissues of foodstuffs. Removal of tissues with relatively high or low vitamin content is reflected in the finished product. Moreover, any action which disrupts the cell walls liberates enzymes that help destroy the vitamins. The deleterious effect of roasting peanuts of 180°C on the biological value of its protein and the destruction of 25 per cent of both its riboflavin and pantothenic acid content have been reported by Buss and Goddard⁽⁴⁾ and Dunn and Goddard.⁽⁷⁾

Evans, et al.⁽⁸⁾ found that milk pasteurized by either the holder or the HTST (High Temperature-Short Time) process showed loss of thiamine. They also observed that the process of cheese manufacture caused no actual destruction of thiamine but progressive decrease was noted as the ripening period progressed. The vitamin losses in drying milk are very much the same as in pasteurization. Kon⁽²⁰⁾ reported 20 per cent loss of vitamin C, 10 per cent loss of thiamine and a slight deterioration in the biological value of the proteins in milk products upon drying.

Fatty fish are appreciably richer in vitamin A than lean fish but they are not valuable sources of this nutrient because of

the small amount present in the fish flesh. In general, processing appears to leave the vitamin A almost intact. Lunde⁽²¹⁾ reported that when fish was smoked whole there was no loss of vitamin A, but when smoked as fillets, there was a slight loss of this vitamin with no serious destructive effect on its riboflavin and niacin content.

Factors causing considerable thiamine losses during baking are the final temperature, the time of heating and the bulk of product being baked. Average losses of 20 per cent thiamine for bread, 33 and 23 per cent for cake with and without raising agents, respectively, and 28 per cent for biscuit have been reported by Coppock, et al.⁽⁵⁾ They concluded that thiamine destruction in baked products is mainly thermal and is affected by other factors only to a relatively small extent.

Prepared meats like Bologna sausage, frankfurters and Canadian bacon were found to contain about the same amounts of thiamine, riboflavin and nicotinic acid as fresh-muscle meats.^(3, 23, 26) However, considerable variation in the retention of these vitamins during cooking was obtained depending on the cooking method, size and kind of meat as well as cooking time. Dunker, et al.⁽⁶⁾ found no significant loss of biological value of the protein of ham after curing and smoking by different methods.

Intengan, et al.^(13, 14, 15, 16, 17) have studied the composition of Philippine foods, but most of their results are for raw food items. The nutritional value of some Filipino recipes has been reported by Bautista, et al.⁽²⁾ and Perez.⁽²⁵⁾ No other publications available on the nutritive value of locally processed foods is known.

This study was undertaken to collect data on the nutritive value of locally processed foods and some imported foods, which will augment the meager information given in the Food Composition Tables recommended for use in the Philippines.⁽⁹⁾ All the processed foods reported in that table have been included and were re-analyzed whenever less than three samples were previously examined. The processed foods chosen for this study were those that are usually eaten with little or no re-cooking needed and do not include any canned foods except *tausi*, coffee, chocolate, guava jelly, and powdered milk. The imported foods included are those frequently found in the Filipino diet.

EXPERIMENTAL PROCEDURE

Locally processed food samples were purchased from groceries, stores and/or public markets of Metropolitan Manila as well as from other parts of the Philippines. A sample of each food was obtained from at least three different places at different times and analyzed separately. The results obtained from the analysis of three or more samples were averaged.

The methods used for the preparation of stabilized samples and the analyses of fourteen nutrients; namely, moisture, fat, nitrogen, crude fiber, ash, calcium, phosphorus, iron, vitamin A, carotene, thiamine, riboflavin, niacin and ascorbic acid are essentially the same as those described by Intengan, et al. (13)

DESCRIPTION OF FOODS STUDIED

For the benefit of those who are not familiar with the foods mentioned in this study, the following is a general description of those foods whose preparation is seldom found in foreign cookbooks or which has been modified and adapted for use with local materials. No attempt is made to give detailed descriptions or standard recipes, since the foods were analyzed as purchased and as there was no means of checking their procedures.

CEREAL AND GRAIN PRODUCTS

SUMANG KAMOTENG KAHoy (Cassava cake).—Grated cassava tubers, grated coconut and sugar are mixed together and small portions of the mixture are rolled on rectangular pieces of banana leaves. The leaf is folded at both ends making a cylindrical roll which is about 7/8" in diam. and 6" in length. The rolls are tied in pairs with strips of dried leaf sheaths of abaca or banana. The *suman* is boiled in water for at least 2-1/2 hours.

CORN PRODUCTS—(1) Binatog.—This is boiled mature corn grains from which the seed coat has been removed. Mature corn grains are boiled with water and ordinary lime to loosen the seed coat. The seed coat is removed by pressing or rubbing against the bottom of a bamboo basket. After thorough washing and cleaning to remove the limy smell, the boiled grains are boiled again until soft. *Binatog* is eaten with grated coconut and salt or sugar.

(2) *Maha blangkang mais*.—This is prepared from a mixture of coconut milk, rice *galapong* (finely ground soaked rice), grated corn and sugar, which is cooked with constant stirring until thick. The cooked mixture is poured into molds and allowed to cool. It is served with *latik* and caramelized coconut meal. If yellow corn is used, a yellow *maha* is obtained.

(3) *Papkorn na maalat o matamis*.—Popcorn is prepared from a special variety of corn characterized by a hard corneous endosperm and small kernels which pop when heated in a closed container. Either salt or syrup is added to produce the salted or sweetened product.

BALAT NG LUMPIA (*lumpia wrapper*).—This is a white, thin, paperlike product made by steaming a batter of wheat flour. It is circular in shape, about 20 cm in diameter and is used for wrapping *lumpia*, a sauteed vegetable dish.

NOODLES—(1) *Bihon, tuyo*.—This is prepared by grinding previously soaked rice grains to a fine suspension in a millstone. After draining for 24 hours in linen bags, the rice dough is kneaded by hand or machine until homogeneous and plastic. The mass is then made into balls and pressed through a metal box provided with small round holes. The extruded filaments are dropped into a vessel of boiling water. The filaments are collected, arranged and spread on bamboo frames to dry under the sun. When dried, the product is ready for the market. It resembles macaroni except that it is white and smaller in diameter.

(2) *Macaroni*.—This is invariably manufactured from durum or common wheat flour. Egg proteins usually act as binder and impart the pleasing yellow color to the finished product. The samples used for analysis were produced locally.

(3) *Miki and misua*.—These products are also manufactured from wheat flour dough. For *miki* the dough is made saline with a 1- to 3-per cent salt solution. Alkali is added to make it golden yellow. The dough is flattened, cut into strips, boiled from 2 to 3 hours and dried under the sun. No alkali is added in the preparation of *misua*. The dough is stretched into fine long strings resembling vermicelli. These strings are dried under the sun.

(4) *Pideos (Vermicelli)*.—This is prepared like the *bihon* except that glutinous rice is used and artificial coloring is added.

(5) *Sotanghon*.—This is prepared from mung bean flour by passing the dough through a collander shift. The extruded filaments are dropped into boiling water and are immediately cooled in cold water, washed and dried under the sun. It is white and crinkly. After cooking, the opaque, filaments become translucent.

RICE PRODUCTS—(1) *Ampaw na bigas*.—This cereal product is prepared by baking puffed rice with thick syrup and is usually sold at bus depots and railroad stations aside from public markets in the Philippines. *Ampaw* is sold in rectangular pieces, $2\frac{1}{2}'' \times 1'' \times \frac{1}{2}''$ wrapped in cellophane or white paper.

(2) *Ampaw na pinipig*.—*Pinipig*, which is glutinous rice (*malagkit*) that has been roasted and pounded is used instead of puffed rice in its preparation. The samples used for analysis came from Laguna and Bulacan provinces.

(3) *Bibingka galapong o malagkit*.—This is prepared from either ordinary or glutinous (*malagkit*) rice that has been soaked in water and ground in a stone mill. A batter is made from the ground rice (*galapong*) with sugar, margarine, baking powder, egg and thick coconut milk. It is baked in circular clay pans in a native oven that is heated with charcoal or coconut husk at the bottom and on top. An electric or gas oven can also be used. Slices of native cheese are placed on top of the mixture as soon as it begins to set. It is served with freshly grated coconut and hot tea or *salabat* (sweetened ginger root infusion).

(4) *Biko*.—Glutinous rice (*malagkit*) is boiled with coconut milk until the liquid is almost evaporated. Sugar is added and the mixture is stirred continuously until thick. It is served with grated coconut. *Pirurutong* (black rice) is often used to impart color to the preparation.

(5) *Kalamay*.—This is prepared from powdered glutinous rice (*malagkit*), coconut milk, sugar and water, which are boiled together until the mixture is thick and sticky. It is then poured while hot into pans lined with banana leaves and served with toasted coconut meal.

(6) *Kutsinta*.—Rice flour is mixed with syrup (1 part sugar to 2 parts water) and lye solution prepared from an aqueous extract of firewood ashes. The mixture is then poured into small round molds and cooked by steaming for about 15 minutes. It is served with grated coconut.

(7) *Espasol*.—This is made from boiled *malagkit*, sugar, grated coconut, coconut milk and *anise* seeds which are cooked together until thick. Toasted rice flour is added and after thorough mixing it is passed through a meat grinder. Portions are shaped into rolls of about 2½" diam. and 6" length, rolled in toasted rice flour and cut into pieces of ½" thickness.

(8) *Palitaw*.—Glutinous rice (*malagkit*) is soaked and ground with a little water to form a stiff dough. Small balls of dough are flattened with the fingers into tonguelike shape and dropped in boiling water. When these float, they are removed, dropped in cold water and drained. *Palitaw* is served with grated coconut, sugar and toasted *liñga* (sesame-seeds). It is also known as *dila-dila*.

(9) *Pinipig*.—*Pinipig* is made by soaking freshly harvested glutinous palay in boiling water for 30 minutes. This is drained and roasted until the grains split and are thus partially freed from the hull. The soft grains are then pounded in a wooden mortar which gives to *pinipig* its flat appearance.

(10) *Puto bumbong*.—A stiff dough made from a mixture of glutinous rice and *pirurutong* is placed in small bamboo tubes and cooked by steaming in a native stove. It is served with grated coconut and refined or crude sugar (*pakaskas*).

(11) *Putong pula o puti*.—This is made from a thin batter of ground rice, salt, sugar and baking powder. The mixture is poured into molds and steamed until done. When brown sugar is used instead of white sugar, the product is brown in color. It is served with grated coconut. The samples used for analysis came from Polo, Bulacan Province.

(12) *Puto seko*.—This is made from ground rice flour and sugar, steamed, molded in various shapes and sizes and toasted in the oven. It is also prepared with grated coconut.

(13) *Sapin-sapin*.—This is prepared from a thick rice batter (*galapong*) with coconut milk, sugar, mashed ubi and powdered *anise*. It is cooked in three layers, one at a time and placed one over the other on a bamboo steamer lined with muslin cloth. The bottom layer is usually colored pink, the middle layer contains the *ubi*, while the top is white.

(14) *Suman sa ibos*.—Glutinous rice (*malagkit*) is soaked in water for 1 hour, then coconut milk and salt are added to it. The mixture is placed in wrappers made of young coconut leaves in the form of a cylindrical tube, 5½" in length and

1½" in diameter. The *suman* is boiled in water for one hour. It is served with sugar.

(15) *Suman sa lihiya*.—This is similar to *suman sa ibos* but contains lye extract instead of coconut milk. The lye extract is prepared by mixing firewood ashes with water and decanting the clear liquid that separates on top after standing. It is wrapped in green banana leaves which have been wilted, tied in pairs and boiled in water for 2 hours. It is served with grated coconut and sugar or *latik*.

(16) *Sumang maruwekos*.—This is prepared from ground glutinous rice (*malagkit*) which has been previously soaked in water, coconut milk and sugar and cooked together until thick. The mixture is wrapped in wilted banana leaves just like the *suman sa lihiya* and tied in pairs. The *suman* is finally steamed for 30 minutes.

(17) *Tamales*.—This is a preparation of ground rice, coconut milk, sugar, salt, pepper and chopped peanuts cooked together. One half of the mixture is colored red with annatto extract (*Bixa orellana*) and 1 tablespoon of this is placed in the center of a banana leaf followed by 1 tablespoon of the uncolored mixture. Slices of pork, chicken, ham and hard cooked egg are placed on top before wrapping in the form of a square. The *tamales* is tied and cooked in boiling water for half an hour.

(18) *Tikoy*.—This is a Chinese product and its preparation is a trade secret. It is similar to *kalamay* but more sticky and has to be fried before serving with sugar. A similar preparation is being made in Quezon Province from glutinous rice flour, sugar, coconut milk, and peanut butter.

SIOPAW NA BABOY O MUNGGO.—This is like a meat roll but cooked by steaming instead of baking and is prepared from wheat dough. The contents may be either sweetened mungo beans or stewed pork. It is prepared by the Chinese.

MAHA BLANKANG UBI.—This is similar to the *maha blangkang mais* but yam (*ubi*) is used instead of corn. It is violet colored.

BAKERY PRODUCTS—(1) *Apa (wafer)*.—This is prepared from a thin batter of flour, sugar and egg which is baked as thin circular sheets, and then rolled into cylinders. This is different from the wafer which is baked on a waffle mold with a cream filling.

(2) *Araro kukis*.—These cookies are prepared from arrow-root starch, butter, sugar, eggs and baking powder.

(3) *Bitso-bitso*.—This is prepared by the Chinese from a thick dough which is rolled, folded over and cut into strips. Two strips are twisted together and cooked by deep drying like doughnuts. It is rolled in sugar before serving.

(4) *Kamatsili*.—This is a cookielike preparation which is shaped like the *Kamatsili* [*Pithecolobium dulce* (Roxb.)] fruit, but is nearly straight and about 2 inches long.

(5) *Empanada (Meat pie)*.—A stiff dough is prepared and rolled out until paper-thin. Then it is rolled to about $\frac{1}{2}$ " thick and cut into 1" pieces. Each piece is then flattened out with a rolling pin and $1\frac{1}{2}$ teaspoon of meat or other kinds of filling is placed on the dough. The dough is folded over the filling and the edges pressed together after moistening with cold water. The *empanada* is cooked by deep frying and drained on paper before serving. Sometimes the dough covering the filling is made of thin strips which give a fluted appearance to the product. The meat filling is sauteed with ham, raisins, and other ingredients. A slice of hard cooked egg and pickle may be added to the cooked filling.

(6) *Ensaymada*.—This is similar to a sweet roll but is baked in the shape of a circular coil of various sizes. It is sprinkled with sugar after baking and a pat of butter or margarine is placed on top after cooling.

(7) *Gurgurya and pilipit*.—These are prepared from a stiff dough which is shaped into rods, folded and twisted together. They are cooked by deep frying and then glazed with sugar. The *gurgurya* is smaller, about 1" long and is seldom glazed with sugar, while the *pilipit* is about 4" long and is always glazed with sugar.

(8) *Hopya*.—This is a Chinese preparation that is very popular in the Philippines. It is made from dough which is stuffed with either sweetened mung bean or meat filling and baked. It is usually round or oval and the crust is made up of several thin layers.

(9) *Tinapay (Bread)*.—*Pan de bonete* is shaped like a muffin and its crust is hard and crisp. *Pan de sal* is oval in shape, about 3" long and $1\frac{1}{2}$ " thick. *Pan de limon* is similar to a hamburger bun but smaller and does not contain any egg.

(10) *Pan de coco* is similar to *pan de limon* but is stuffed with sweetened coconut before baking.

(11) *Pasensiya*.—This is a round cookie about 1" in diameter and $\frac{1}{4}$ " thick which is prepared from an ordinary cake batter but with less number of eggs.

(12) *Masa podrida*.—This is prepared from a dough made of grated coconut, sugar and flour mixed together and kneaded with egg yolk and sugar. The mixture is rolled out $\frac{1}{4}$ " thick and cut with a biscuit cutter. Each piece is brushed with egg yolk and sprinkled with sugar before baking.

FRUIT AND VEGETABLE PRODUCTS

ARINA NG KAMOTENG KAHYOY (*Cassava flour*).—Sliced cassava tuber (*Manihot esculenta*) is dried and ground in a mill to the desired fineness. The sample was obtained from the Bureau of Plant Industry, Manila.

SOYBEAN PRODUCTS—(1) *Taho and tokwa* (*Soybean cheese*).—Unpressed soybean curd is known as *taho* while the pressed curd is the *tokwa*. They are prepared from soybean milk extracted from water-soaked beans that have been ground in a stone mill. The milk is boiled and added to a gypsum solution to form the curd. For *taho* manufacture a small amount of the coagulating agent is used and the very soft but solid mass formed is allowed to settle down in a wooden container. For *tokwa* preparation, the coagulated mixture is strained through cheese cloth and the curd in the cheese cloth is pressed between 2 pieces of wooden boards to remove the remaining liquid. The compressed cakes are baked in a moderate oven until light brown. The inside of the cakes remain white. *Tokwa* is sold in cake form about $2\frac{1}{2}$ " square by $\frac{1}{2}$ " thick. *Taho* is almost tasteless and must be served with medium syrup.

(2) Soybean milk samples were purchased from a local manufacturer. Chocolate is added to the soybean milk to improve its flavor.

(3) *Miso* (*Soybean paste*) is prepared by pounding beans which have been boiled until sufficiently soft. It turns darker and becomes rancid after a few days.

(4) *Tahuri* is soybean curd which is prepared like *tokwa* and preserved in strong brine solution. It is sold in 8 cm cubes.

(5) *Tausi* (*Fermented salted bean*) is a fermented product prepared from black soybeans. It is brownish in color and

sold with the salty liquid in which the steamed beans were fermented.

(6) *Toyo* (*Soybean sauce*).—Boiled beans are dried in the sun, coated with flour and inoculated with the spores of *Aspergillus oryzae* mold. The container is covered and allowed to stand at room temperature in a dark room for a few days. When the mixture becomes hot and hardens it should be broken up to prevent spoiling. When the flour and bean culture mixture no longer becomes hot after breaking and heaping it, 10 per cent saline solution previously inoculated with Fleischmann yeast or *tuba* (fermented palm sap), is added and the enzyme fermentation continued in the sun for at least 4 months. Previously boiled brine is added before and during the harvest of the sauce or dark brown liquid. The sauce is boiled, filtered and processed. The residue may be used for *tausi* while in compact form or as *tahuri* when finally macerated.

MEAT, FISH, AND POULTRY PRODUCTS

MEAT PRODUCTS.—(1) *Kekiyam* (*Meat loaf*) is ground pork, mixed with egg, pepper, flour and soy sauce, rolled in leaf lard and cooked by steaming. It is sliced, sprinkled with flour and fried before serving.

(2) *Longganisang baboy at baka* (*Native sausage*).—This is prepared from lean beef and/or pork or their trimmings and cubed fat mixed with potassium nitrate, vinegar, wine, salt, sugar, and spices. The mixture is allowed to cure in the refrigerator for 5 days before stuffing in hog casings and linking. The product is perishable and must be kept under refrigeration.

(3) *Longganisang Makaw* (*Canton type sausage*).—This is a partially dried sausage whereby about 10 per cent of the original moisture has been evaporated. It is prepared from lean pork or pork trimmings and fat mixed with potassium nitrate, salt, sugar, rum, and red coloring. The mixture is placed in the refrigerator to cure for about 3 days before stuffing in hog casings and linking. The sausages are then dried until a hardened product is obtained.

(4) *Sitsarong baboy* (*Pig's crackling*).—This is made from the skin of pork. It is brittle, dry and without fat. The skin is boiled until soft and allowed to drip several hours before dipping it in hot lard. It is used as garnishing in

pancit luglog, as appetizer in cocktail parties, as an ingredient in stewed vegetables, and as a viand.

(5) *Tapa* is dried salted meat of any kind which has been cut into slices.

FISH AND POULTRY PRODUCTS

(1) *Bagoong* (Salted and fermented shrimp, fish and shellfish).—This is obtained from the fermentation of small salted fishes or shrimps packed in earthen pots or jars. Several kinds of *bagoong* were analyzed; namely, *bagoong alamang* (small shrimps); *bagoong hipon* (gobyfry); *bagoong isda* (anchovy); *bagoong padas* (siganid fry); and *bagoong talaba* (oyster). *Bagoong isda* came from Balayan, Batangas Province, and *bagoong hipon*, from Sta. Lucia, Ilocos Sur Province.

(2) *Daing* is dried salted fish of any kind and size. The fish is cut along the center of the dorsal side lengthwise, cleaned, salted and dried under the sun.

(3) *Fish balls*.—These are prepared from ground fish meat mixed with fish broth, milk, flour, *patis* and spices. The paste is made into balls about 1" in diameter and cooked either by steaming or drying. It is used as an ingredient in *pancit* and other Filipino dishes.

(4) *Patis* (Fish sauce).—This product is the liquid obtained from the fermentation of small salted fishes and shrimps during the preparation of *bagoong*. A high grade *patis* should contain 10 per cent protein. It is used for seasoning many Filipino dishes and as sauce for boiled fish, meat or chicken. The sample came from Malabon, Rizal Province.

(5) *Tuyo* is salted whole fish, preferably small ones ranging from 3" to 6" long, which has been dried under the sun without removing the internal organs. The *tuyo* of the following fish were analyzed: *ayungin*, *sapsap*, and *tunsoy*. The *ayunging tuyo* came from Cardona, Rizal Province.

(6) *Tinapa* (Smoked fish).—Large sardines 4 to 8" long are washed thoroughly and soaked in brine for a few minutes or hours, depending on the size of the fish. Then they are dried under the sun until firm prior to smoking. Smoke is produced by burning sawdust of *lauan* or other nonresinous wood in a charcoal fire under a tall pot having a small hole in the bottom and an open top. One or more trays of fish are placed over the pot with a tightly woven bamboo basket placed on top as cover. Smoking is done for 1 to 7 hours depending upon the smoke desired and the size of the fish. The fish

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should be turned several times during the smoking. The product will keep from 2 to 4 weeks without spoiling.

EGGS—(1) *Balut* is fertilized duck's egg that has been incubated from 18 to 20 days. A home-made incubator consists of a cylindrical bamboo basket about 50 cm in diameter and opened at both ends. These baskets are arranged in pairs inside a bamboo or wooden frame. The spaces in between are filled with rice hull to serve as insulation. A bag of heated hull is placed at the bottom of the basket. An abaca or *sinamay* bag containing the eggs is placed on top of the heated rice hull. The entire box is covered with 2 to 4 layers of cotton flannel or burlap sheets and the floor of the hatchery is covered with a layer of rice hull 2 to 4" deep. The temperature throughout the incubation period is maintained at 39° C by heating the rice hull every morning and afternoon in a large iron vat. The eggs are turned morning and afternoon when the bags of rice hull are removed to heat their contents. Testing for fertile eggs is done by candling on the 5th, 13th and 14th days of incubation. After 18 days the fertile eggs are boiled. The samples came from Pateros, Rizal Province.

(2) *Penoy* is incubated duck's egg in which the germ failed to develop further after 13 or 14 days' of incubation due to low vitality. The egg is removed from the incubator and boiled.

(3) *Itlog na maalat (Salted egg)*.—Duck's eggs are packed in a mixture of four parts sticky clay and 1 part salt and allowed to remain in this mixture from 10 to 14 days. After this period an egg is tested by boiling and if not salty enough the curing period is prolonged. The hard cooked eggs are painted with a red dye to identify them in the market.

(4) *Century egg*.—This is also prepared from duck's eggs. The eggs are covered with a mixture of tea infusion, pine wood, coal, charcoal ashes and lime. They are placed in an earthen jar lined with earth or rice husk and allowed to cure for 100 days or more. The product is odorous with a gelatinous brown egg albumen and a dark gray yolk. It is used as an appetizer for Chinese dinners.

MILK AND MILK PRODUCTS

(1) *Cottage cheese* is prepared by fermenting skim milk for 4 days to develop lactic acid for complete curdling of the milk. The curdled milk is boiled to about 50°C to recover the albumin

and for the separation of whey from the coagulated mass. A little salt is added to improve the flavor and preserve the cheese. There should be enough whey left in the curd after draining to render it neither too wet nor too dry. The sample was obtained from a local dairy plant.

(2) *Kesong puti* (Native cheese).—This is prepared from carabao's milk by coagulation with rennet enzyme or vinegar and heat. When the curds have set, refined salt is added to taste and after thorough mixing they are placed in molds and allowed to harden. The whey is drained off and the cheese is wrapped in banana leaves. The product is white, soft and tasty.

(3) *Polboron* is prepared from toasted flour mixed with sugar, powdered milk, butter or margarine and flavoring. The mixture is molded and wrapped in colored tissue paper.

SUGAR PRODUCTS

(1) *Banana chips or crackers*.—These are prepared from the *saba* variety. Thin slices of banana are partially dried, soaked in syrup and dried again until crisp to produce banana chips. Thicker slices are used for banana crackers. The crackers came from Iloilo City.

(2) *Matamis na rimas* (Breadfruit candy).—Breadfruit is boiled in water, peeled and sliced. It is soaked overnight in thin syrup and the syruping is continued for several days, gradually increasing the syrup concentration daily. The product is glazed, if desired before drying.

(3) *Matamis na bao* (Coco honey).—This is prepared from coconut milk mixed with brown sugar and *kalamansi* (*Citrus microcarpa* Bunge) juice. The mixture is cooked with constant stirring until it falls in a mass when dropped from a spoon. It is filled in sterilized jars while hot and covered tightly. The sample was obtained from Sariaya, Quezon Province.

(4) *Guava jelly* is prepared from mature but unripe guavas. The fruits are washed, blanched, sliced and boiled in a little water until soft. The mixture is placed in a bag and allowed to drip. Sugar and citric or tartaric acid are added and the mixture is boiled and skimmed until the jelling point is reached. The jelly is poured into sterilized containers while hot and after cooling, melted paraffin is poured on top of the jelly before sealing.

(5) *Karamelo* is made from refined sugar and a little water. The mixture is molded into 2" × 2" square slabs and dried. It is eaten like candy or used as a substitute for sugar in certain food preparations.

(6) *Lohuwa*.—This is manufactured by the Chinese from rice, peanuts or sesame seeds and its preparation is a trade secret. It is crisp, hollow inside and about 4" long and 1" wide.

(7) *Pastilyas de leche* (*Milk fudge*).—Fresh carabao milk is heated with continuous stirring over a low fire until $\frac{3}{4}$ of its original volume has evaporated. Then sugar and lemon rind are added and cooking is continued with constant stirring until a soft ball is formed. The paste is poured on a sugared board, cut into 2" × $\frac{1}{2}$ " pieces, rolled in sugar and wrapped in tissue paper. When yam (*ubi*) is added to the milk and sugar the product is yam fudge, (*ubido*, *ubidolse*).

(8) *Nata de coco*.—*Nata* is the thick mucilaginous film found on the surface of an acidified liquid containing sugar and other food constituents necessary for the growth of the nata-producing microorganism. Fresh coconut water is strained, acidified with glacial acetic acid and sugar added to make a 15 per cent sugar solution. The starter is added to the mash and the mixture is allowed to ferment for 10 to 14 days. The *nata* is harvested and processed by soaking, washing and cutting into desired size. Washing of cut *nata* is continued until the acid taste is no longer detected. Then the *nata* is cooked with sugar, packed in bottles and sterilized. *Nata* can also be prepared from coconut skim milk incorporated with coconut water.

(9) *Peanut crackers*.—This is prepared from selected shelled peanuts which have been coated with a thin batter of soybean flour, wheat flour, salt and egg white. The peanuts are arranged one by one on a baking pan, then toasted in the oven until brown.

(10) *Bibingkang gabi* (*Taro cake*).—This is prepared from ground boiled taro, mixed with sugar and coconut milk. The mixture is cooked with constant stirring until thick like paste. Then it is poured on clean wilted banana leaves. When cool, it is sliced into 2" × 2 $\frac{1}{4}$ " pieces and served with *latik*.

(11) *Turon*.—This is prepared from peanut or pilinut. The nuts are ground and mixed with butter, milk, sugar and egg yolk. The mixture is cooked over a low fire until the paste

is quite dry. The paste is poured on a board, cooled and cut into rectangular pieces.

(12) *Tsampoy na sampalok (Tamarind candy)*.—Tamarind fruits are peeled and mashed with a little salt and sugar. They are cooked with flour until thick. After cooking the mixture is made into balls containing at least one seed, rolled in sugar and packed in paper or cellophane bags. The sample came from Pasig, Rizal Province.

(13) *Kending kundol (Waxgourd candy)*.—Waxgourd fruit is peeled and sliced. It is soaked in calcium oxide (lime) solution overnight, rinsed and boiled gently with syrup. The slices are glazed before drying.

MISCELLANEOUS

(1) *Sarsang saging (Banana sauce)*.—This is prepared from *saba* banana, sugar, vinegar and spices cooked together. Food coloring is added to simulate the color of tomato sauce.

(2) *Gulaman*.—This may be prepared by sun drying and bleaching the thallus of the algæ, or by making a jelly of the seaweeds and allowing the water to freeze out. The residue is cut into thin strips and dried thoroughly. The red color is produced by incorporating a red dye in the agar.

(3) *Tuba (Fermented palm sap)*.—*Tuba* is fermented coconut sap which is obtained by tapping the flower spathe of the coconut tree and collecting the juice that oozes out. This is fermented for a few hours only. The sample came from Silang, Cavite Province.

RESULTS AND DISCUSSION

Two hundred and eighteen locally processed foods were analyzed in this study. The foods have been grouped into cereal and grain products; fruit and vegetable products; meat, fish and poultry products; milk and milk products; sugar products and miscellaneous. The results of the proximate, mineral and vitamin analyses of these foods are presented.

Table 1 shows the nutritive value of 96 cereal and grain products. Most of the foods in this group are bakery products and preparations from rice, corn and cassava which are commonly used as snack items or as desserts. The chief contribution of these products is food energy (calories). Protein values are generally below 5 per cent and those foods with more than 10 per cent protein are not eaten in sufficient quantities to appreciably increase the protein content of the

diet. The fat content of bakery products is usually above 10 per cent because of the shortening used in their preparation. Except for butter cookies, there are no excellent sources of calcium and phosphorus in this group; almost all goods are fair or poor sources of iron. The yellow corn products contain some vitamin A in the form of carotene. The use of enriched flour for baking makes some of the bakery products good sources of thiamine and niacin. However, thiamine destruction has been found to increase with increased exposure to heat⁽²⁷⁾ and there is greater loss of thiamine in bread than in rolls. Ascorbic acid is negligible in the foods of this group.

The results of the analysis of 17 fruit and vegetable products are given in Table 2. Peanuts, cashew and some soybean products like *tahuri*, *tausi*, *miso* and *tokwa* have high protein contents that may partially contribute to the dietary intake of this nutrient. These soybean products are also good sources of phosphorus while peanuts are excellent sources of phosphorus, thiamine and niacin. Only prunes and *toyo* are good sources of iron in this group. *Mansanitas* is a good source of ascorbic acid.

Table 3 gives the food value of 55 meat, fish and poultry products. The majority of the foods in this group are dried, salted and smoked fish which are very common items in the average Filipino diet. Their main contributions to the diet are protein, minerals and niacin. The results essentially substantiate the observation of Adriano and Guzman⁽¹⁾ on the high calcium and phosphorus content of local fish and fish products. The meat products and eggs likewise contribute to the protein intake but their minerals, except for phosphorus of eggs, are lower than those of fish products. Ham and *tapa* are excellent sources of thiamine.

The nutritive values of 10 milk and milk products are given in Table 4. These foods contribute protein, calcium and riboflavin, but are very expensive and beyond the reach of the low-income groups. The calcium and phosphorus contents of goat's milk are lower than those of cow's and carabao's milk, but its iron content is ten times higher. The fat of carabao's milk is very high, therefore it is not recommended for infant feeding. Native cheese is a better source of iron than cottage and kraft cheese. Chocolait and choco-malt are inferior to powdered cow's milk in protein, minerals, (except iron) and vitamins. Ascorbic acid is not present in the foods of this group.

Table 5 shows the proximate, mineral and vitamin contents of 27 sugar products which are mainly used for snacks or dessert. As in the cereal and grain products the calorie content of these foods is their main contribution to the diet. Products containing peanuts have high protein, fat, phosphorus and thiamine contents, and if eaten in great quantities they may serve as good sources of these nutrients.

Thirteen other food items are given in Table 6. They have no outstanding food values and are mainly used for seasoning and as beverages. The analyses of dried cocoa and coffee powder and dried tea leaves are reported in this study; therefore their nutritive values for protein, fat (cocoa) and minerals are not significantly high when prepared as beverages. *Gulamán* contains 488 mg per cent calcium, but this is also insignificant because of the quantity that is usually eaten.

SUMMARY

The proximate, mineral and vitamin contents of 218 locally processed foods are presented. These foods included 96 cereal and grain products, 17 fruit and vegetable products, 55 meat fish and poultry products, 10 milk and milk products, 27 sugar products, and 13 miscellaneous products.

Peanut and soybean products, meat, fish and poultry products, milk and milk products are among the processed foods which can be considered as good or excellent sources of protein, minerals and vitamins.

ACKNOWLEDGMENT

The authors wish to extend their sincere appreciation to Dr. Conrado R. Pascual, Research Director and Dr. Carmen Ll. Intengan, Assistant Director, Food and Nutrition Research Center for this continuous guidance and inspiration; to Dr. Jose Villa Panganiban, Director of the Institute of National Language, for going over the Filipino and English names of processed foods reported in this study; to Mr. Angustin F. Umali, Ichthyologist of the National Museum, for checking the scientific names of the fish products; to the staff of the Nutrition Research Laboratory, Food and Nutrition Research Center, for their help in the analysis of some of the foods; and to the members of the Food and Nutrition Research Center Technical Committee for editing this paper.

Acknowledgment is also made to the staff of the Food Research Laboratory who in one way or another have helped in the preparation of this paper.

REFERENCES

1. ADRIANO, F. T., and M. S. GUZMAN. The phosphorus and calcium content of some Philippine food products. *Phil. Agric.* 20 (1932) 43.
2. BAUTISTA, A. P., V. Q. ALABASTRO, and M. CAEDO. The acceptability and nutritional value of some Filipino recipes. *Phil. Jour. Home Econ.* 10 (1950) 14.
3. BEUK, J. F., J. F. FRIED, and E. E. RICE. Nutritive values of sausage and other table ready meat as affected by processing. *Food Res.* 15 (1950) 302-307.
4. BUSS, L. W., and V. R. GODDARD. Effect of heat upon the nutritive values of peanut. I. Protein quality. *Food Res.* 13 (1948) 506.
5. COPPOCK, J. B., B. R. CARPENTER, and R. A. KNIGHT. Cereal product fortification: The B-vitamins with special references to the thiamine losses in baked products. *Jour. Sci. Food Agric.* 7 (1956) 457-464.
6. DUNKER, C. F., M. BERMAN, G. G. SNIDER, and H. S. TUBIASH. Quality and nutritive properties of different types of commercially cured hams. III. Vitamin content, biological value of the protein and bacteriology. *Food Tech.* 7 (1953) 288-291.
7. DUNN, K. R., and V. R. GODDARD. Effect of heat upon the nutritive values of peanuts. II. Riboflavin and pantothenic acid contents. *Food Res.* 13 (1948) 512-517.
8. EVANS, E. V., O. R. IRVINE, and L. R. BRYANT. The retention of nutrients in cheese making. IV. Thiamine in cheddar cheese made from raw and pasteurized milk. *Jour. Nutr.* 32 (1946) 227-237.
9. Food composition tables—Proximate, minerals and vitamins. Recommended for use in the Philippines. Institute of Nutrition Handbook I, Revised 1957, Manila.
10. A Handbook of Philippine Agriculture. College of Agriculture, Univ. of the Phil. (1939) 803 pp.
11. HARRIS, R. S., and H. VON LOESECKE, editors. Nutritional Evaluation of Food Processing. John Wiley and Sons, Inc., New York (1960) xviii + 612 pp.
12. HOLMAN, W. I. Distribution of vitamins in fruits and vegetables. *Nutr. Abst. Rev.* 26 (1956) 277.
13. INTENGAN, C. LL., L. G. ALEJO, I. CONCEPCION, C. YAPTINCHAY, V. L. POBRE, R. D. SALUD, and J. MANALO. Composition of Philippine foods. I. *Philip. Jour. Sci.* 82 (1953) 227-252.
14. INTENGAN, C. LL., I. CONCEPCION, R. D. SALUD, J. MANALO, I. DEL ROSARIO, R. GOMEZ, V. ARZAGA, and L. G. ALEJO. Composition of Philippine foods. II. *Philip. Jour. Sci.* 83 (1954) 187-216.
15. INTENGAN, C. LL., L. G. ALEJO, V. A. CORPUS, R. D. SALUD, I. DEL ROSARIO, R. GOMEZ, J. HENSON, and I. CONCEPCION. Composition of Philippine foods. III. *Philip. Jour. Sci.* 84 (1955) 263-273.
16. INTENGAN, C. LL., I. CONCEPCION, L. G. ALEJO, V. A. CORPUS, R. D. SALUD, I. DEL ROSARIO, R. GOMEZ, and J. HENSON. Composition of Philippine foods. IV. *Philip. Jour. Sci.* 84 (1955) 343-363.
17. INTENGAN, C. LL., L. G. ALEJO, I. CONCEPCION, V. A. CORPUS, R. D. SALUD, I. DEL ROSARIO, R. GOMEZ, and J. HENSON. Composition of Philippine foods. V. *Philip. Jour. Sci.* 85 (1956) 203-213.

18. JACOBS, M. B., editor. *The Chemistry and Technology of Food and Food Products*. 2nd ed. Interscience Publishers, Inc., New York 2 (1951) xxvi + 1769 pp.
19. *Kitchen Tested Recipes*. 3rd. ed. Food and Nutrition Research Center, National Media Prod. Center (1963).
20. KON, S. K. The chemical composition and nutritive value of milk and milk products. *Chem. Ind.* 62 (1943) 478-481.
21. LUNDE, FISCHWAREN u. Feinkost Industr., 1937, pts. 8/9 cited by Lovern, J. A. The nation's food. VI. Fish as food. 3. The vitamin and mineral content of fish. *Chem. Ind.* 62 (1943) 328-330.
22. MENDOZA, J. M. *Philippine Foods, Their Processing and Manufacture*. Manila, Phil. (1961) 421 pp.
23. MCINTIRE, J. M., B. S. SCHWEIGERT, E. J. HERBERT, and C. A. ELVEHJEM. Vitamin content of variety meats. *Jour. Nutr.* 28 (1944) 35-40.
24. PEREZ, E. D. *Recipes of the Philippines*. 2nd ed. Capitol Publ. House, Inc., Manila, Phil. (1954) 120 pp.
25. PEREZ, P. *Everyday Foods in the Philippines*. Banawe Publ. Co., Inc. (1953) 286 pp.
26. SCHWEIGRT, B. S., B. A. BENNETT, M. MARQUETTE, H. E. SCHEID, and B. H. MCBRIDE. Thiamine, riboflavin and niacin content of processed meats. *Food Res.* 17 (1952) 56-59.
27. ZAEHRINGEE, M. V., and C. J. PERSONIUS. Thiamine retention in bread and rolls baked to different degrees of brownness. *Cereal Chem.* 26 (1949) 384-392.

TABLE 1.—Cereal and grain products.

| Item | Local name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | | |
|------|---|--|---|-----------|-----------|-----|-----|----------------|-------------|----------|--------------|-------|------------|-----------|-------------|---------|----------------|-------|
| | | | Calo-ries | Mois-ture | Pro-te-in | Fat | Ash | Car-bohy-drate | Crude fiber | Cal-cium | Phos-pho-rus | Iron | Vita-min A | Thia-mine | Ribo-flavin | Nia-cin | Ascor-bic acid | |
| | | | gm | gm | gm | gm | gm | gm | gm | gm | mg | mg | mg | IU | mg | mg | mg | mg |
| 1 | Ampaw na bigas ----- | Sweetened puffed rice | 385 | 5.6 | 4.5 | 2.1 | 0.7 | 87.1 | 0.5 | 26 | 80 | 2.5 | ----- | 0.01 | 0.14 | 1.6 | ----- | ----- |
| 2 | Ampaw na pinipig ----- | Sweetened puffed rice flakes | 392 | 3.3 | 3.1 | 1.6 | 0.7 | 91.3 | 0.7 | 23 | 127 | 7.1 | ----- | traces | 0.04 | 2.0 | ----- | ----- |
| 3 | Balat ng lumpiya ----- | Lumpia wrapper | 316 | 20.2 | 10.6 | 0.5 | 1.5 | 67.2 | ----- | 41 | 90 | 5.0 | ----- | 0.23 | 0.06 | 2.8 | ----- | ----- |
| 4 | Bibingkang galapong ----- | Rice cake | 234 | 41.5 | 3.6 | 0.9 | 1.1 | 52.9 | ----- | 96 | 185 | 5.3 | ----- | 0.12 | 0.05 | 0.6 | ----- | ----- |
| 5 | Bibingkang galapong na may keso't kinudkod na niyog ----- | Rice cake with cheese and grated coconut | 223 | 45.6 | 2.3 | 2.6 | 1.8 | 47.2 | 1.3 | 71 | 73 | 5.1 | ----- | 0.09 | 0.06 | 0.6 | ----- | ----- |
| 6 | Bibingkang malagkit ----- | Glutinous rice cake | 257 | 36.8 | 2.8 | 1.1 | 0.4 | 58.9 | 0.5 | 13 | 59 | 1.5 | ----- | 0.03 | 0.01 | 1.1 | ----- | ----- |
| 7 | Bihon ----- | Rice noodles | 360 | 12.9 | 4.7 | 0.1 | 0.2 | 82.1 | 0.2 | 6 | 35 | 1.8 | ----- | 0 | 0.01 | 0.1 | ----- | ----- |
| 8 | Bihong luto ----- | Cooked rice noodles | 99 | 76.0 | 1.3 | 0 | 0.1 | 22.6 | 0 | 4 | 10 | 0.6 | ----- | 0 | 0 | 0 | ----- | ----- |
| 9 | Biko ----- | Glutinous rice preparation | 252 | 37.9 | 2.2 | 0.9 | 0.3 | 58.7 | 0.7 | 12 | 35 | 1.3 | ----- | 0.03 | 0.01 | 0.6 | ----- | ----- |
| 10 | Bikng malagkit na may kinudkod na niyog ----- | Glutinous rice preparation with grated coconut | 246 | 40.0 | 3.3 | 1.6 | 0.4 | 54.7 | 1.7 | 14 | 53 | 2.4 | ----- | 0.02 | 0.02 | 0.6 | ----- | ----- |
| 11 | Bikng may pirurutong ----- | Glutinous rice preparation with black rice | 227 | 43.6 | 2.6 | 0.4 | 0.2 | 53.2 | 1.7 | 14 | 33 | 1.5 | ----- | 0.02 | 0.04 | 0.5 | ----- | ----- |
| 12 | Binatog ----- | Hominy | 111 | 73.8 | 3.3 | 2.6 | 0.4 | 19.9 | 0.6 | 17 | 85 | 1.0 | 250 | 0.05 | 0.03 | 0.4 | ----- | 1 |
| 13 | Kalamay na malagkit na may latik ----- | Glutinous rice preparation with coconut syrup | 208 | 48.2 | 2.7 | 0.4 | 0.3 | 48.4 | 1.0 | 10 | 32 | 2.6 | ----- | 0.01 | 0.01 | 0.3 | ----- | ----- |
| 14 | Kutsinta ----- | Rice preparation | 168 | 58.6 | 1.4 | 0.9 | 0.5 | 38.6 | ----- | 11 | 19 | 1.6 | ----- | trace | 0.01 | 0.2 | ----- | ----- |
| 15 | Kutsintang may niyog ----- | Rice preparation with grated coconut | 158 | 64.0 | 1.6 | 3.2 | 0.5 | 30.7 | ----- | 9 | 41 | 4.6 | ----- | 0.01 | 0.02 | 0.3 | ----- | ----- |
| 16 | Espasol ----- | Glutinous rice product | 312 | 25.8 | 4.0 | 3.6 | 0.8 | 65.8 | 5.6 | 19 | 114 | 3.2 | ----- | 0.07 | 0.04 | 1.1 | ----- | ----- |
| 17 | Makaroni ----- | Macaroni | 361 | 11.4 | 14.3 | 0.3 | 0.6 | 73.4 | 0.2 | 30 | 113 | 3.1 | ----- | 0.57 | 0.25 | 4.4 | ----- | ----- |
| 18 | Maha blangkang mais ----- | White corn flour preparation | 149 | 64.0 | 1.3 | 1.1 | 0.2 | 33.4 | 0.7 | 6 | 21 | 1.7 | ----- | 0.01 | 0.01 | 0.2 | ----- | ----- |
| 19 | Maha blangkang may kinudkod na niyog ----- | White corn flour preparation with grated coconut | 157 | 54.8 | 1.0 | 1.4 | 0.2 | 42.6 | 1.3 | 15 | 33 | 1.2 | ----- | 0.01 | 0.01 | 0.1 | ----- | ----- |
| 20 | Maha blangkang may ubi ----- | White corn flour preparation with yam | 209 | 48.5 | 1.1 | 1.2 | 0.7 | 48.5 | 0.7 | 19 | 36 | ----- | ----- | 0.01 | 0.3 | ----- | ----- | ----- |

| | | | | | | | | | | | | | | | | | |
|----|---|---|-----|------|------|------|-----|------|-------|----|-----|-----|-------|--------|------|-----|-------|
| 21 | Maha blankang mais | Yellow corn preparation | 123 | 69.8 | 1.1 | 1.6 | 0.2 | 27.3 | 1.4 | 32 | 30 | 1.2 | 123 | 0.01 | 0.04 | 0.1 | ----- |
| 22 | Maha blankang mais may kinudkod na niyog | Yellow corn preparation with grated coconut | 149 | 63.8 | 1.8 | 1.0 | 0.2 | 33.2 | 0.9 | 17 | 29 | 1.9 | 198 | 0.03 | 0.03 | 0.3 | ----- |
| 23 | Maha blankang ubi | Yam preparation | 187 | 53.5 | 1.2 | 0.8 | 0.7 | 43.8 | 0.6 | 24 | 51 | 3.1 | ----- | 0.04 | 0.03 | 0.3 | ----- |
| 24 | Maha blankang ubing may kinudkod na niyog | Yam preparation with grated coconut | 191 | 53.0 | 1.7 | 1.2 | 0.7 | 43.4 | 1.0 | 18 | 47 | 2.4 | ----- | 0.05 | 0.02 | 0.3 | ----- |
| 25 | Miki | Wheat noodles | 337 | 28.6 | 7.9 | 11.8 | 1.7 | 50.0 | ----- | 49 | 47 | 2.8 | ----- | 0.10 | 0.04 | 1.6 | 0 |
| 26 | Miking luto | Cooked wheat noodles | 122 | 75.9 | 3.2 | 5.4 | 0.4 | 15.1 | ----- | 21 | 21 | 0.5 | ----- | 0.03 | 0.04 | 0.5 | ----- |
| 27 | Misuwa | Wheat noodles | 350 | 11.3 | 12.1 | 0.1 | 3.7 | 72.8 | ----- | 55 | 74 | 2.1 | ----- | 0.20 | 0.03 | 3.2 | 0 |
| 28 | Misuwang luto | Cooked wheat noodles | 84 | 78.2 | 3.3 | 0.1 | 0.9 | 17.5 | ----- | 29 | 23 | 1.0 | ----- | 0.08 | 0.02 | 0.8 | ----- |
| 29 | Palitaw | Glutinous rice preparation | 208 | 51.1 | 2.6 | 2.8 | 0.3 | 43.2 | ----- | 18 | 45 | 3.2 | ----- | 0.04 | 0.02 | 0.7 | ----- |
| 30 | Palitaw na may niyog at asukal | Glutinous rice preparation w/grated coconut and sugar | 211 | 52.6 | 2.6 | 4.5 | 0.3 | 40.0 | ----- | 17 | 44 | 3.3 | ----- | 0.04 | 0.02 | 0.7 | ----- |
| 31 | Pideos | Vermicelli | 366 | 10.6 | 10.2 | 0.3 | 1.0 | 77.9 | 0.1 | 19 | 70 | 2.1 | ----- | 0.30 | 0.12 | 2.7 | ----- |
| 32 | Pinipig | Glutinous rice flakes | 349 | 15.3 | 5.0 | 1.0 | 1.4 | 77.3 | 0.9 | 17 | 224 | 2.0 | 20 | 0.24 | 0.05 | 4.3 | ----- |
| 33 | Papkong maalat, binusang mais na maalat | Salted popcorn | 471 | 3.8 | 6.7 | 18.6 | 1.7 | 69.2 | 1.1 | 33 | 174 | 0.3 | ----- | 0.01 | 0.05 | 1.9 | ----- |
| 34 | Papkong matamis | Sweet popcorn | 443 | 2.3 | 4.0 | 11.0 | 0.8 | 81.9 | 1.4 | 27 | 113 | 2.4 | ----- | 0.03 | 0.05 | 0.9 | ----- |
| 35 | Puto bumbong | Rice preparation | 251 | 38.5 | 3.5 | 1.3 | 0.3 | 56.4 | ----- | 13 | 44 | 2.3 | ----- | 0.03 | 0.01 | 0.5 | ----- |
| 36 | Puto pula | Rice preparation with red coloring | 206 | 48.1 | 2.0 | 0.1 | 0.5 | 49.3 | 0.2 | 5 | 23 | 2.9 | ----- | traces | 0.01 | 0.1 | ----- |
| 37 | Puto puti | Rice preparation without coloring | 216 | 45.8 | 2.8 | 0.2 | 0.4 | 50.8 | ----- | 6 | 35 | 2.7 | ----- | 0.01 | 0.01 | 0.4 | ----- |
| 38 | Puto sekong bilog | Toasted rice bread preparation | 388 | 4.8 | 6.0 | 1.8 | 0.4 | 87.0 | 1.8 | 15 | 56 | 2.2 | ----- | 0.06 | 0.02 | 0.5 | ----- |
| 39 | Puto sekong habang may niyog | Toasted rice bread preparation with coconut | 402 | 5.8 | 4.4 | 5.5 | 0.5 | 83.8 | 2.9 | 23 | 60 | 3.1 | ----- | 0.02 | 0.02 | 0.6 | ----- |
| 40 | Sapin-sapin | Glutinous rice preparation | 129 | 68.1 | 1.1 | 0.4 | 0.1 | 30.3 | ----- | 9 | 16 | 1.4 | ----- | 0.01 | 0.01 | 0.2 | ----- |
| 41 | Siopaw na baboy | Pork siopao | 295 | 40.2 | 9.0 | 12.3 | 1.5 | 37.0 | ----- | 40 | 97 | 3.7 | ----- | 0.17 | 0.13 | 2.1 | ----- |
| 42 | Siopaw na munggo | Mongo siopao | 279 | 33.6 | 6.7 | 2.9 | 0.4 | 56.4 | 2.9 | 28 | 68 | 3.4 | ----- | 0.14 | 0.11 | 1.6 | ----- |
| 43 | Suman sa ibos | Glutinous rice cake wrapped in blades nepa leaf | 171 | 57.5 | 3.1 | 0.7 | 0.7 | 38.0 | 0.4 | 15 | 26 | 1.2 | ----- | 0.01 | 0.01 | 0.3 | ----- |
| 44 | Suman sa lihiya | Glutinous rice preparation wrapped in banana leaf | 191 | 52.3 | 3.2 | 0.4 | 0.5 | 43.6 | 1.0 | 9 | 32 | 1.3 | ----- | traces | 0.02 | 0.5 | ----- |
| 45 | Sumang kamoteng kahoy | Cassava cakes | 210 | 48.5 | 0.5 | 1.4 | 0.7 | 48.9 | 0.6 | 20 | 35 | 2.4 | ----- | 0.03 | 0.02 | 0.5 | ----- |
| 46 | Sumang maruwecos | Glutinous rice product with grated coconut | 211 | 49.8 | 2.6 | 2.4 | 0.4 | 44.8 | 1.9 | 15 | 60 | 2.1 | ----- | 0.03 | 0.03 | 0.6 | ----- |

TABLE 1.—Cereal and grain products—Continued.

| Item | Local name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | |
|------|-----------------------------------|---------------------------------|---|-----------|-----------|------|-----|-----------------|-------------|----------|--------------|------|------------|-----------|-------------|---------|----------------|
| | | | Calo-ries | Mois-ture | Pro-te-in | Fat | Ash | Car-bony-drates | Crude fi-be | Cal-cium | Phos-pho-rus | Iron | Vita-min A | Thia-mine | Ribo-flavin | Nia-cin | Ascor-bic acid |
| | | | gm | gm | gm | gm | gm | gm | gm | mg | mg | mg | IU | mg | mg | mg | mg |
| 47 | Sotanghon | Rice noodles | 361 | 13.0 | 3.5 | 0.4 | 0.3 | 82.8 | ----- | 26 | 34 | 1.2 | ----- | 0.01 | 0.01 | 0.1 | ----- |
| 48 | Sotanghong luto | Cooked rice noodles | 83 | 80.1 | 0.1 | 0.3 | 0 | 19.5 | ----- | 20 | 3 | 1.3 | ----- | 0 | 0 | 0 | ----- |
| 49 | Tamalis | Rice flour prepara-tion | 101 | 75.2 | 1.3 | 0.9 | 0.8 | 21.8 | 0.5 | 25 | 38 | 2.0 | 15 | 0.01 | 0.02 | 0.4 | ----- |
| 50 | Tikoy | Glutinous rice cake | 266 | 33.7 | 2.5 | 0.3 | 0.1 | 63.4 | 1.0 | 21 | 17 | 2.2 | ----- | 0.02 | 0.02 | 0.4 | 2 |
| 51 | Tikoy na may mani | Glutinous rice cake with peanut | 247 | 40.1 | 6.4 | 1.3 | 0.3 | 51.4 | 1.0 | 18 | 53 | 4.3 | ----- | 0.05 | 0.03 | 1.2 | ----- |
| 52 | APA TINAPAY, KEYK AT IBA PA | Wafer | 388 | 3.3 | 5.4 | 0.5 | 0.4 | 90.4 | ----- | 33 | 52 | 2.0 | ----- | 0.11 | 0.09 | 0.9 | ----- |
| 53 | Bitso-bitso | Chinese bakery prod-uct | 372 | 22.6 | 7.4 | 13.6 | 1.4 | 55.0 | ----- | 39 | 79 | 3.7 | ----- | 0.10 | 0.10 | 0.9 | ----- |
| 54 | Biskotso | Toasted bread | 413 | 5.4 | 9.3 | 7.8 | 1.2 | 76.3 | ----- | 44 | 92 | 3.1 | ----- | 0.17 | 0.14 | 3.3 | ----- |
| 55 | Biskuwit na "Gem" | Gem biscuit | 423 | 5.8 | 11.0 | 9.8 | 1.1 | 72.8 | ----- | 61 | 109 | 3.6 | ----- | 0.10 | 0.31 | 2.4 | ----- |
| 56 | Biskuwit na Jacobina espesyal | "Jacobina especial" biscuit | 449 | 3.3 | 7.0 | 13.6 | 1.4 | 74.7 | ----- | 60 | 89 | 3.9 | ----- | 0.09 | 0.07 | 2.5 | ----- |
| 57 | Brohas | Lady fingers | 389 | 10.5 | 8.6 | 6.7 | 0.7 | 73.5 | ----- | 66 | 136 | 1.5 | ----- | 0.18 | 0.16 | 1.4 | ----- |
| 58 | Kamatsili (tinapay) | Bakery product | 435 | 3.8 | 7.8 | 10.9 | 1.1 | 76.4 | ----- | 40 | 81 | 3.9 | ----- | 0.14 | 0.12 | 2.2 | ----- |
| 59 | Keyk, prutas | Fruit cake | 365 | 26.0 | 5.0 | 14.6 | 1.0 | 53.4 | ----- | 59 | 123 | 3.6 | ----- | 0.14 | 0.06 | 1.0 | ----- |
| 60 | Keyk | Hot cake | 269 | 40.8 | 8.4 | 7.7 | 1.6 | 41.5 | ----- | 233 | 156 | 4.2 | ----- | 0.15 | 0.25 | 1.3 | ----- |
| 61 | Keyk | Sponge cake | 306 | 29.0 | 8.2 | 5.3 | 1.2 | 56.3 | ----- | 162 | 156 | 3.7 | ----- | 0.12 | 0.26 | 1.2 | ----- |
| 62 | Keyk, sikulate | Chocolate cake | 389 | 19.3 | 5.6 | 14.2 | 1.3 | 59.6 | ----- | 63 | 102 | 3.0 | ----- | 0.21 | 0.05 | 1.0 | ----- |
| 63 | Kukis | Cookies | 445 | 2.2 | 5.7 | 11.5 | 1.0 | 79.6 | ----- | 25 | 96 | 3.3 | ----- | 0.33 | 0.27 | 4.1 | ----- |
| 64 | Kukis araro | Arrow-root cookies | 416 | 5.8 | 1.1 | 3.4 | 0.7 | 84.0 | ----- | 27 | 83 | 3.5 | ----- | 0.02 | 0.03 | 0.3 | ----- |
| 65 | Kukis na may manti-kilya | Butter cookies | 506 | 1.0 | 8.3 | 23.1 | 1.5 | 66.1 | ----- | 121 | 213 | 2.3 | ----- | 0.14 | 0.29 | 1.6 | ----- |
| 66 | Kukis na may pili | Mixed nut cookies | 532 | 1.5 | 6.6 | 26.3 | 1.0 | 62.6 | ----- | 122 | 111 | 2.4 | ----- | 0.16 | 0.27 | 0.6 | ----- |
| 67 | Krackers, biscuit | Crackers | 481 | 2.7 | 7.5 | 19.4 | 1.4 | 69.0 | ----- | 36 | 54 | 2.8 | ----- | 0.16 | 0.10 | 3.6 | ----- |
| 68 | Krackers na maalat | Salted cracker | 440 | 3.2 | 10.2 | 12.3 | 2.3 | 72.0 | ----- | 29 | 94 | 5.1 | ----- | 0.14 | 0.29 | 4.9 | ----- |
| 69 | Donat | Doughnut | 391 | 20.9 | 7.6 | 15.6 | 0.9 | 55.0 | ----- | 51 | 67 | 2.3 | ----- | 0.19 | 0.09 | 2.0 | ----- |
| 70 | Empanada | Meat pie | 460 | 19.9 | 9.2 | 23.7 | 1.1 | 41.1 | ----- | 36 | 92 | 5.1 | ----- | 0.36 | 0.15 | 3.1 | ----- |
| 71 | Ensaymada | Sweet roll | 335 | 21.9 | 8.4 | 4.9 | 0.5 | 64.3 | ----- | 24 | 63 | 3.1 | ----- | 0.16 | 0.14 | 2.6 | ----- |
| 72 | Calveys de patatas | Bakery product | 423 | 3.4 | 15.0 | 8.0 | 0.8 | 72.8 | ----- | 55 | 149 | 4.3 | ----- | 0.16 | 0.15 | 2.4 | ----- |
| 73 | Gurgurva | Bakery product | 525 | 3.7 | 6.7 | 23.1 | 0.3 | 61.2 | ----- | 18 | 50 | 4.2 | ----- | 0.14 | 0.06 | 2.1 | ----- |
| 74 | Hopyang baboy | Stuffed bakery prod-uct | 414 | 12.5 | 5.0 | 13.1 | 0.3 | 69.1 | 3.4 | 32 | 54 | 2.4 | ----- | 0.11 | 0.08 | 2.0 | ----- |
| 75 | Hopyang munggo | Stuffed bakery prod-uct | 383 | 13.5 | 6.5 | 12.0 | 0.7 | 62.3 | 1.7 | 25 | 94 | 6.7 | ----- | 0.12 | 0.11 | 1.2 | ----- |

| | | | | | | | | | | | | | | | | | |
|----|----------------------------|------------------------|-----|------|------|------|-----|------|-----|----|-----|-----|--|------|------|-----|---|
| 76 | Mamon | Plain cake | 388 | 17.5 | 5.4 | 12.1 | 0.7 | 64.3 | | 83 | 87 | 1.7 | | 0.10 | 0.08 | 1.2 | |
| 77 | Mamongt ostado | Toasted cake | 414 | 3.9 | 10.4 | 6.7 | 0.9 | 73.1 | | 49 | 189 | 3.4 | | 0.15 | 0.29 | 1.3 | |
| 78 | Masapudrida | Bakery product | 384 | 4.6 | 4.8 | 0.8 | 0.4 | 89.4 | | 27 | 48 | 1.5 | | 0.13 | 0.08 | 2.1 | |
| 79 | Ogoy, ogoy | Bakery product | 442 | 3.8 | 8.3 | 12.4 | 1.2 | 74.3 | | 33 | 129 | 2.3 | | 0.20 | 0.10 | 3.1 | 0 |
| 80 | Pan amerikano | American loaf | 383 | 22.9 | 9.7 | 5.6 | 0.9 | 60.9 | | 77 | 95 | 3.9 | | 0.20 | 0.16 | 3.3 | |
| 81 | Pan de bonete | Bread | 323 | 28.6 | 12.3 | 4.5 | 1.2 | 53.4 | | 40 | 76 | 3.1 | | 0.21 | 0.22 | 2 | |
| 82 | Pan de ecco | Bread | 350 | 20.3 | 9.2 | 6.7 | 0.7 | 63.1 | 0 | 30 | 76 | 2.0 | | 0.21 | 0.07 | 2 | |
| 83 | Pan de limon | Bread | 321 | 24.0 | 10.6 | 4.0 | 0.3 | 60.6 | | 25 | 84 | 3.6 | | 0.18 | 0.09 | 3.1 | |
| 84 | Pan de sal | Bread | 370 | 24.6 | 10.1 | 4.5 | 1.0 | 59.8 | | 24 | 75 | 3.0 | | 0.22 | 0.15 | 3.0 | |
| 85 | Pasensiya | Bakery product | 397 | 4.6 | 6.9 | 3.4 | 0.5 | 84.6 | | 39 | 82 | 2.3 | | 0.16 | 0.19 | 1.5 | |
| 86 | Piliipit | Bakery product | 463 | 3.2 | 6.7 | 16.3 | 0.3 | 73.5 | | 21 | 44 | 3.1 | | 0.11 | 0.07 | 2.0 | |
| 87 | Pitisu | Cream puff | 292 | 35.7 | 5.4 | 7.5 | 0.6 | 50.8 | | 60 | 77 | 1.6 | | 0.10 | 0.09 | 0.8 | |
| 88 | Pivanono | Jelly rolls | 319 | 23.3 | 7.3 | 2.9 | 0.6 | 65.9 | | 44 | 84 | 3.8 | | 0.17 | 0.11 | 1.7 | |
| 89 | Pulboron | Bakery product | 497 | 4.3 | 5.2 | 23.2 | 0.5 | 66.3 | | 23 | 59 | 1.4 | | 0.20 | 0.60 | 1.9 | |
| 90 | Rolls | Rolls | 322 | 24.3 | 10.2 | 4.4 | 0.7 | 60.4 | | 27 | 68 | 3.9 | | 0.19 | 0.08 | 3.1 | |
| 91 | Rolls, cinnamon | Cinnamon rolls | 419 | 16.3 | 9.1 | 17.7 | 1.0 | 55.9 | | 55 | 89 | 2.6 | | 0.13 | 0.13 | 1.9 | |
| 92 | Rolls, cream filled | Cream-filled rolls | 366 | 27.9 | 9.2 | 16.3 | 1.0 | 45.6 | | 63 | 163 | 2.7 | | 0.06 | 0.25 | 0.7 | |
| 93 | Rolls, marshmallow | Marshmallow roll | 339 | 20.9 | 6.5 | 4.9 | 0.6 | 67.1 | | 46 | 124 | 2.3 | | 0.11 | 0.21 | 0.7 | |
| 94 | Roll na may pinya | Pineapple-filled rolls | 255 | 39.1 | 3.5 | 2.5 | 0.4 | 54.5 | 0.7 | 35 | 45 | 1.2 | | 0.09 | 0.09 | 0.5 | 1 |
| 95 | Tinapay para sa diyabetiko | Diabetic loaf | 313 | 21.7 | 12.1 | 0.9 | 1.2 | 64.1 | | 43 | 88 | 2.1 | | 0.29 | 0.21 | 2.3 | |
| 96 | Wafer, apa | Wafer | 505 | 2.5 | 4.6 | 23.2 | 0.4 | 69.4 | | 36 | 55 | 1.9 | | 0.02 | 0.10 | 1.7 | |

TABLE 2.—Fruit and vegetable products.

| Item | Local name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | | |
|------|--|---------------------------------|---|-----------|-----------|------|------|----------------|-------------|----------|--------------|------|------------|-----------|-------------|---------|----------------|----|
| | | | Calo-ries | Mois-ture | Pro-te-in | Fat | Ash | Car-bohy-drate | Crude fiber | Cal-cium | Phos-pho-rus | Iron | Vita-min A | Thia-mine | Ribo-flavin | Nia-cin | Ascor-bic acid | |
| | | | gm | gm | gm | gm | gm | gm | gm | gm | mg | mg | mg | IU | mg | mg | mg | mg |
| 1 | Arina ng kamoteng kahoy | Cassava flour | 363 | 9.1 | 1.1 | 0.5 | 1.1 | 88.2 | 2.2 | 84 | 37 | 1.0 | | 0.04 | 0.01 | 0.6 | | |
| 2 | Binusang kastanyas | Roasted chestnut | 256 | 36.3 | 5.0 | 1.2 | 1.1 | 56.4 | 1.9 | 29 | 30 | 1.3 | | 0.19 | 0.18 | 1.4 | | |
| 3 | Binusang kasuy | Roasted cashew | 603 | 6.2 | 19.1 | 47.4 | 2.3 | 25.0 | 0.7 | 37 | 441 | 3.3 | | 0.48 | 0.23 | 1.5 | | |
| 4 | Binusang maning walang balat | Roasted peanut without skin | 564 | 6.3 | 30.6 | 49.4 | 2.7 | 11.0 | 1.9 | 68 | 400 | 2.3 | 0 | 0.20 | 0.12 | 15.0 | | 6 |
| 5 | Binusang maning may balat | Roasted peanut with skin | 563 | 9.2 | 27.6 | 51.6 | 3.0 | 8.6 | 2.2 | 41 | 355 | 2.0 | 0 | 0.53 | 0.19 | 15.2 | | 13 |
| 6 | Nilagang mani | Boiled peanut | 360 | 40.2 | 13.5 | 31.2 | 2.3 | 12.3 | 2.4 | 42 | 177 | 1.4 | 0 | 0.44 | 0.12 | 5.8 | | 5 |
| 7 | Mansanitas | | 383 | 16.9 | 1.1 | 0.5 | 0.6 | 80.9 | 3.1 | 56 | 25 | 1.5 | | 0.03 | 0.05 | 0.3 | | 44 |
| 8 | Miso | Soybean paste | 144 | 66.2 | 13.0 | 3.5 | 2.2 | 15.1 | 4.9 | 107 | 112 | 2.8 | 12 | 0.09 | 0.06 | 0.4 | | 1 |
| 9 | Papas na walang buto | Seedless raisin | 340 | 14.6 | 3.5 | 1.1 | 1.9 | 73.9 | 1.7 | 76 | 125 | 3.8 | | 0.14 | 0.14 | 0.4 | | 8 |
| 10 | Pruns | Prunes | 273 | 29.0 | 2.5 | 0.7 | 2.3 | 65.5 | 1.8 | 67 | 89 | 5.3 | | 0.04 | 0.09 | 1.4 | | 8 |
| 11 | Soybean milk gata ng balatong | Soybean milk | 31 | 87.6 | 2.7 | 0.9 | 0.4 | 8.4 | | 36 | 33 | 0.5 | 7 | 0.18 | 0.08 | 1.5 | | |
| 12 | Soybean milk na may tsokolate, gata ng balatong na may tsokolate | Soybean milk chocolate flavored | 37 | 81.0 | 2.2 | 0.3 | 0.4 | 16.1 | | 44 | 44 | 0.4 | 5 | 0.13 | 0.10 | 1.5 | | |
| 13 | Tahong walang pulot | Geerling's cheese without syrup | 26 | 92.7 | 2.9 | 1.4 | 0.6 | 2.4 | | 121 | 46 | 0.7 | | 0.04 | 0.03 | 0.1 | | |
| 14 | Tahuri | Fermented soybean curd | 102 | 61.4 | 12.5 | 6.5 | 17.1 | 2.5 | | 86 | 93 | 9.2 | | 0.02 | 0.13 | 0.4 | | |
| 15 | Tausi | Fermented salted bean | 117 | 57.1 | 11.4 | 6.7 | 12.2 | 12.6 | 2.1 | 123 | 131 | 3.9 | 50 | 0.02 | 0.29 | 1.7 | | 4 |
| 16 | Tokwa | Soybean cheese | 104 | 78.0 | 12.9 | 6.8 | 1.1 | 1.2 | | 153 | 119 | 1.7 | | 0.05 | 0.05 | 0.2 | | |
| 17 | Toyo | Soy sauce | 47 | 59.6 | 2.9 | 0.7 | 18.4 | 18.4 | | 57 | 54 | 6.7 | | | 0.30 | 0.4 | | |

TABLE 3.—Meat, fish and poultry products.

| Item | Local name | Scientific name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | | |
|------|-----------------------------|---------------------------------|---|---|-----------|-----------|------|------|----------------|-------------|----------|--------------|-------|------------|-----------|-------------|---------|-----------------|----|
| | | | | Calo-ries | Mois-ture | Pro-te-in | Fat | Ash | Car-bohy-drate | Crude fiber | Cal-cium | Phos-pho-rus | Iron | Vita-min A | Thia-mine | Ribo-flavin | Nia-cin | As-cor-bic acid | |
| | | | | | gm | gm | gm | gm | gm | gm | gm | mg | mg | mg | IU | mg | mg | mg | mg |
| 1 | Daing na alakaak | <i>Pseudoscaena anea</i> | Dried plain croaker | 223 | 37.2 | 39.3 | 6.1 | 17.1 | | | | 235 | 218 | 2.0 | | 0.01 | 0.08 | 4.3 | |
| 2 | Tuyong alamang | <i>Leander</i> sp. | Dried small surimp | 299 | 21.6 | 59.4 | 3.6 | 12.2 | 3.2 | | | 2,306 | 625 | 21.4 | | 0.06 | 0.19 | 5.5 | |
| 3 | Daing na alumahan | <i>Rastrelliger chrysozonus</i> | Dried stripped mackerel | 230 | 39.5 | 42.9 | 5.2 | 14.2 | | | | 183 | 351 | 2.9 | | 0.01 | 0.07 | 17.9 | |
| 4 | Tuyong ayungin | <i>Therapon plumbeus</i> | Dried silver perch | 355 | 17.4 | 54.6 | 12.5 | 19.5 | | | | 5,317 | 1,356 | 20.2 | | 0.07 | 0.39 | 4.2 | |
| 5 | Daing na bakalaw | <i>Gadus</i> sp. | Dried cod | 260 | 27.8 | 51.8 | 1.2 | 12.4 | 6.8 | | | 371 | 339 | 3.0 | | 0.05 | 0.16 | 4.1 | |
| 6 | Daing na bakoko | <i>Sparus berde</i> | Dried pomasid | 206 | 42.3 | 34.3 | 6.2 | 15.7 | 1.0 | | | 187 | 280 | 1.9 | | 0.01 | 0.03 | 9.4 | |
| 7 | Bagoong na alamang | <i>Acetes indicus</i> | Salted and fermented small shrimp | 73 | 63.3 | 14.9 | 1.0 | 20.6 | 0.2 | | | 469 | 228 | 5.4 | | 0.01 | 0.10 | 1.6 | |
| 8 | Bagoong na alamang (bastos) | <i>Acetes indicus</i> | —do— | 60 | 64.1 | 12.0 | 0.8 | 22.7 | 0.4 | | | 689 | 397 | 8.9 | | 0.01 | 0.14 | 1.6 | |
| 9 | Bagoong na hipon | <i>Gobies</i> sp.(Gobiidae) | Salted and fermented goby fry | 83 | 66.4 | 12.5 | 1.9 | 16.1 | 3.1 | | | 403 | 341 | 1.4 | | 0.03 | 0.18 | 1.5 | |
| 10 | Bagoong na isda | <i>Stolephorus</i> spp. | Salted and fermented long-jawed anchovy | 70 | 64.3 | 14.3 | 1.0 | 20.6 | | | | 535 | 313 | 10.9 | | traces | 0.13 | 3.8 | |
| 11 | Bagoong na padas | Teuthididae | Salted and fermented siganid fry | 81 | 60.0 | 10.6 | 1.7 | 22.8 | 4.9 | | | 504 | 435 | 16.6 | | 0.01 | 0.21 | 3.7 | |
| 12 | Bagoong na talaba | <i>Ostrea</i> sp. | Salted and fermented oyster | 43 | 85.2 | 3.3 | 2.5 | 7.6 | 1.4 | | | 139 | 23 | 4.2 | | traces | 0.09 | 0.4 | |
| 13 | Tinapang bangos | <i>Chanos chanos</i> | Smoked milk-fish | 183 | 63.3 | 27.5 | 6.6 | 2.2 | 1.5 | | | 80 | 195 | 1.1 | | 0.03 | 0.03 | 7.4 | |
| 14 | Daing na bisugo | <i>Nemipterus taenipterus</i> | Dried ribbon finned hemipterid | 187 | 40.6 | 34.6 | 2.9 | 18.7 | 3.2 | | | 245 | 254 | 0.7 | | 0.02 | 0.01 | 6.5 | |

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TABLE 3.—Meat, fish and poultry products—Continued.

| Item | Local name | Scientific name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | | | |
|------|-----------------------------|---------------------------------|--|---|-----------|-----------|------|------|----------------|-------------|----------|--------------|------|------------|-----------|-------------|---------|-----------------|-------|----|
| | | | | Calo-ries | Mois-ture | Pro-te-in | Fat | Ash | Car-bohy-drate | Crude fiber | Cal-cium | Phos-pho-rus | Iron | Vita-min A | Thia-mine | Ribo-flavin | Nia-cin | As-corb-ic acid | | |
| | | | | | gm | gm | gm | gm | gm | gm | gm | gm | mg | gm | gm | IU | mg | mg | mg | mg |
| 15 | Daing na kabasi | <i>Anodontostoma machacunda</i> | Dried and salted bas-tard shad basling | 164 | 43.3 | 23.7 | 5.5 | 19.3 | 3.2 | ----- | 492 | 433 | 2.8 | ----- | 0.01 | 0.14 | 3.3 | ----- | ----- | |
| 16 | Tinapang kabasi | <i>Anodontostoma machacunda</i> | Smoked bas-tard shad basling | 140 | 66.7 | 23.0 | 2.1 | 2.8 | 0.4 | ----- | 302 | 219 | 0.8 | ----- | 0.03 | 0.06 | 4.1 | ----- | ----- | |
| 17 | Daing na kandulf | <i>Arius thalassilepis</i> | Dried Manila sea catfish | 219 | 39.8 | 45.4 | 2.8 | 15.0 | ----- | ----- | 147 | 324 | 4.2 | ----- | 0.03 | 0.06 | 2.4 | ----- | ----- | |
| 18 | Kek yam | ----- | ----- | 129 | 63.3 | 4.2 | 2.1 | 2.0 | 23.4 | ----- | 60 | 31 | 1.4 | ----- | 0.03 | 0.03 | 0.3 | ----- | ----- | |
| 19 | Kropek | ----- | Kropek | 501 | 4.7 | 3.0 | 26.5 | 3.2 | 62.6 | ----- | 52 | 46 | 3.3 | ----- | 0.06 | 0.02 | 0.8 | ----- | ----- | |
| 20 | Daing na dalagang bukid | <i>Caesio chrysonomus</i> | Dried golden caesio | 248 | 33.4 | 44.6 | 4.9 | 8.3 | 3.2 | ----- | 122 | 236 | 1.0 | ----- | 0.13 | 0.03 | 5.4 | ----- | ----- | |
| 21 | Dilis na binilad (pinatuyo) | <i>Stolephorus commersoni</i> | Dried long-jawed anchovy | 331 | 16.7 | 63.7 | 4.2 | 13.3 | ----- | ----- | 2,331 | 1,439 | 23.4 | ----- | 0.01 | 0.23 | 7.5 | ----- | ----- | |
| 22 | Bola-bolang isda | ----- | Fish balls | 121 | 63.4 | 8.6 | 0.5 | 1.9 | 20.6 | ----- | 47 | 81 | 0.9 | ----- | 0.02 | 0.02 | 0.8 | ----- | ----- | |
| 23 | Maliit na frankfurter | ----- | Small frankfurter | 243 | 59.5 | 17.0 | 18.5 | 3.0 | 2.0 | ----- | 33 | 134 | 2.6 | ----- | 0.07 | 0.20 | 2.6 | ----- | ----- | |
| 24 | Daing na galung-gong | <i>Decapterus macrostoma</i> | Dried scar fish | 221 | 37.6 | 43.3 | 3.9 | 14.8 | 0.4 | ----- | 629 | 534 | 3.6 | ----- | 0.02 | 0.09 | 12.3 | ----- | ----- | |
| 25 | Ginamcs | <i>Stolephorus spp.</i> | Salted and fermented fish | 137 | 49.0 | 26.7 | 2.5 | 21.6 | ----- | ----- | 820 | 758 | 8.3 | ----- | 0 | 0.27 | 5.0 | ----- | ----- | |
| 26 | Hamon | <i>Sus serafa</i> | Pork ham | 370 | 46.1 | 20.0 | 31.5 | 2.4 | ----- | ----- | 37 | 61 | 2.0 | ----- | 0.51 | 0.33 | 2.9 | ----- | ----- | |
| 27 | Tinapang hasa-hasa | <i>Rastrelliger brachysomus</i> | Smoked short-bodied mackerel | 146 | 61.9 | 30.0 | 1.7 | 5.8 | 0.6 | ----- | 52 | 239 | 1.2 | ----- | 0.02 | 0.09 | 9.3 | ----- | ----- | |
| 28 | Hibi | Palaemonidae | Salted dried shrimp | 254 | 29.6 | 52.9 | 1.8 | 12.9 | 2.8 | ----- | 1,043 | 512 | 5.5 | ----- | 0.02 | 0.05 | 3.3 | ----- | ----- | |
| 29 | Hatdog | ----- | Hot dog | 234 | 61.1 | 12.7 | 8.3 | 3.3 | 4.6 | ----- | 76 | 108 | 3.5 | ----- | 0.04 | 0.18 | 2.1 | ----- | ----- | |
| 30 | Longganisa | <i>Sus serafa</i> | Sausage | 596 | 24.9 | 8.3 | 60.0 | 3.3 | 3.5 | ----- | 25 | 61 | 1.2 | ----- | 0.33 | 0.14 | 2.2 | ----- | ----- | |
| 31 | Longganisang baboy at baka | <i>Sus serafa</i> Linn. var. | Mixed sausage (pork and beef) | 452 | 37.6 | 14.5 | 42.3 | 3.3 | 2.3 | ----- | 28 | 61 | 1.1 | ----- | 0.10 | 0.21 | 1.1 | ----- | ----- | |

| | | | | | | | | | | | | | | | | | | |
|-----|-----------------------|---------------------------------|---------------------------|-----|------|------|------|------|-------|-------|-----|-----|-------|-------|--------|------|-------|-------|
| 32. | Longganisang ma-kaw | <i>Sus serofa</i> Linn. var. | Chinese sausage | 768 | 3.6 | 14.9 | 77.5 | 2.5 | 1.5 | ----- | 28 | 29 | 1.6 | ----- | 0.03 | 0.17 | 0.6 | ----- |
| 33. | Surisong bilbaw | <i>Sus serofa</i> Linn. var. | Canned sausage | 831 | 3.6 | 3.7 | 90.0 | 1.7 | 0.9 | ----- | 27 | 14 | 0.9 | ----- | 0.05 | 0.05 | 0.4 | ----- |
| 34. | Daing na lapu-lapu | <i>Epinephelus corallicola</i> | Dried spotted grouper | 238 | 40.7 | 38.9 | 2.0 | 5.3 | 13.1 | ----- | 178 | 203 | 1.1 | ----- | 0.01 | 0.01 | 2.6 | ----- |
| 35. | Daing na matangkabaka | <i>Caranx crumenophthalmus</i> | Dried big-eyed sead | 182 | 41.7 | 37.8 | 1.5 | 17.4 | 1.6 | ----- | 332 | 217 | 5.1 | ----- | 0.02 | 0.05 | 13.5 | ----- |
| 36. | Tinapang matangkabaka | <i>Caranx crumenophthalmus</i> | Smoked big-eyed sead | 199 | 56.7 | 35.5 | 5.3 | 3.1 | ----- | 101 | 186 | 1.5 | ----- | 0.01 | 0.08 | 8.7 | ----- | |
| 37. | Patis | <i>Anas domestica</i> | Fish sauce | 59 | 63.6 | 9.9 | 0.1 | 22.6 | 3.8 | ----- | 37 | 36 | 2.8 | ----- | traces | 0.08 | 4.4 | ----- |
| 38. | Balut | <i>Anas domestica</i> | Fertilized duck's egg | 181 | 72.3 | 12.6 | 13.9 | 1.1 | 0.1 | ----- | 116 | 175 | 1.6 | ----- | 0.11 | 0.27 | 0.9 | 3 |
| 39. | Century egg | <i>Anas domestica</i> | Century egg | 219 | 59.0 | 13.6 | 12.4 | 2.0 | 13.0 | ----- | 5 | 135 | 6.3 | ----- | 0.05 | 0.22 | 0.1 | ----- |
| 40. | Itlog na maalat | <i>Anas domestica</i> | Salted duck's egg | 195 | 66.5 | 13.6 | 13.3 | 2.2 | 4.4 | ----- | 120 | 157 | 1.8 | ----- | 0.28 | 0.47 | 0.1 | ----- |
| 41. | Penoy | <i>Anas domestica</i> | Hard boiled infertile egg | 202 | 67.5 | 13.6 | 14.4 | 1.0 | 3.5 | ----- | 98 | 190 | 1.4 | ----- | 0.22 | 0.41 | 0.1 | ----- |
| 42. | Tuyong pusit | <i>Loligo pealii</i> | Dried squid | 286 | 30.6 | 57.4 | 4.5 | 5.5 | ----- | 49 | 600 | 3.2 | ----- | 0.02 | 0.07 | 9.0 | ----- | |
| 43. | Daing na salaysalay | <i>Caranx didaba</i> | Dried crevalle | 320 | 32.2 | 43.4 | 12.6 | 3.7 | ----- | 207 | 366 | 1.4 | ----- | 0.03 | 0.11 | 11.3 | ----- | |
| 44. | Daing na samaral | <i>Teuthis jesus</i> | Dried Javan squid | 188 | 42.7 | 38.2 | 1.8 | 14.9 | 2.4 | ----- | 213 | 288 | 1.2 | ----- | 0.05 | 0.08 | 5.6 | ----- |
| 45. | Tuyong sapsap | <i>Leiognathus equinus</i> | Dried common blipmouth | 230 | 36.8 | 43.4 | 4.9 | 15.0 | ----- | 203 | 290 | 1.3 | ----- | 0.01 | 0.02 | 3.4 | ----- | |
| 46. | Sitsarong baboy | <i>Sus serofa</i> | Pig's crackling | 603 | 1.5 | 54.5 | 42.1 | 0.42 | 1.5 | ----- | 42 | 52 | 2.8 | ----- | 0.03 | 0.04 | 1.1 | ----- |
| 47. | Tuyong talaba | <i>Ostrea</i> sp. | Dried oyster | 370 | 13.1 | 46.0 | 7.9 | 8.1 | 24.9 | ----- | 319 | 524 | 33.1 | ----- | 0.09 | 0.03 | 4.2 | ----- |
| 48. | Daing na talakitok | <i>Caranx sexfasciatus</i> | Dried banded caravalla | 254 | 34.5 | 50.4 | 4.2 | 10.9 | ----- | 134 | 277 | 1.0 | ----- | 0.11 | 0.02 | 6.8 | ----- | |
| 49. | Daing na tailong | <i>Mugil melanopterus</i> | Dried black finned mullet | 184 | 43.5 | 32.0 | 5.3 | 16.0 | 3.2 | ----- | 313 | 195 | 2.5 | ----- | traces | 0.10 | 2.5 | ----- |
| 50. | Daing na tamban | <i>Sardinella longiceps</i> | Dried Indian sardine | 179 | 43.1 | 37.4 | 1.1 | 16.0 | 2.4 | ----- | 283 | 315 | 3.7 | ----- | 0.01 | 0.11 | 14.5 | ----- |
| 51. | Tinapang tamban | <i>Sardinella longiceps</i> | Smoked Indian sardine | 174 | 58.5 | 33.2 | 3.6 | 5.1 | ----- | 203 | 175 | 0.8 | ----- | 0.01 | 0.09 | 5.0 | ----- | |
| 52. | Daing na tangginggi | <i>Cybbium commersoni</i> | Dried Spanish mackerel | 205 | 40.4 | 43.1 | 2.3 | 14.4 | ----- | 86 | 329 | 1.5 | ----- | 0.02 | 0.02 | 12.0 | ----- | |
| 53. | Tapa | <i>Sus serofa</i> | Dried pork | 293 | 52.8 | 17.9 | 14.2 | 4.3 | 2.5 | ----- | 52 | 96 | 2.5 | ----- | 0.51 | 0.33 | 2.9 | ----- |
| 54. | Tuyong tunsoy | <i>Sardinella fimbriata</i> | Dried fimbriated herring | 197 | 42.7 | 38.0 | 2.4 | 13.8 | 3.1 | ----- | 200 | 366 | 2.6 | ----- | 0.01 | 0.25 | 7.1 | ----- |
| 55. | Tuyong turay | <i>Sardinella sirm</i> | Dried spotted sardine | 179 | 43.1 | 37.4 | 1.1 | 16.0 | 2.4 | ----- | 283 | 315 | 3.7 | ----- | 0.01 | 0.11 | 14.5 | ----- |

TABLE 4.—Milk and milk products.

| Item | Local name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | |
|------|---------------------------------|------------------------|---|---------------|--------------|------|------|------------------------|----------------|--------------|----------------------|--------|-------------------|---------------|-----------------|-------------|-----------------------|
| | | | Calo- ries | Mois- ture | Pro- tein | Fat | Ash | Car- bohy- drate | Crude fiber | Cal- cium | Phos- pho- rus | Iron | Vit- amin A | Thia- mine | Ribo- flavin | Nia- cin | Ascor- bic acid |
| | | | gm | gm | gm | gm | gm | gm | gm | mg | mg | mg | IU | mg | mg | mg | mg |
| 1. | Chocolait..... | Chocolait..... | 66 | 83.0 | 2.9 | 0.2 | 0.6 | 13.3 | ----- | 134 | 76 | 0.4 | ----- | 0.02 | 0.06 | 0.1 | ----- |
| 2. | Choco-malt..... | Milk chocolate..... | 408 | 0.9 | 10.2 | 6.2 | 2.5 | 80.2 | ----- | 337 | 335 | 2.2 | ----- | 0.14 | 0.41 | 2.1 | ----- |
| 3. | Kesong gawa sa bahay..... | Cottage cheese..... | 92 | 77.0 | 15.4 | 0.9 | 1.9 | 4.9 | ----- | 89 | 142 | 1.6 | ----- | 0.07 | 0.81 | 0.7 | ----- |
| 4. | Kesong kraft..... | Kraft cheese..... | 326 | 38.5 | 22.8 | 20.3 | 5.3 | 13.1 | ----- | 777 | 338 | 1.5 | ----- | 0.01 | 0.26 | 0.1 | ----- |
| 5. | Kesong puti..... | Native cheese..... | 285 | 51.0 | 12.3 | 26.5 | 10.2 | ----- | ----- | 238 | 130 | 4.6 | ----- | 0.02 | 0.11 | 0.2 | ----- |
| 6. | Gatas ng baka..... | Cow's milk..... | 61 | 88.3 | 3.2 | 3.5 | 0.7 | 4.3 | ----- | 143 | 60 | 0.2 | ----- | 0.03 | 0.12 | 0.1 | ----- |
| 7. | Gatas na pulbos ng baka..... | Cow's milk powder..... | 486 | 5.5 | 26.0 | 26.7 | 5.6 | 36.2 | ----- | 727 | 480 | traces | (1,400) | 0.23 | 1.70 | 0.3 | ----- |
| 8. | Gatas ng kalabaw..... | Carabao's milk..... | 160 | 73.8 | 6.3 | 12.0 | 0.8 | 7.1 | ----- | 216 | 101 | 0.2 | ----- | 0.04 | 0.18 | 0.1 | ----- |
| 9. | Gatas ng kambing..... | Goat's milk..... | 64 | 85.9 | 4.3 | 2.3 | 0.9 | 6.6 | ----- | 93 | 78 | 2.7 | ----- | 0.06 | 0.29 | 0.1 | ----- |
| 10. | Pulboron..... | Pulvoron..... | 453 | 2.7 | 6.8 | 15.4 | 0.5 | 73.6 | 0.4 | 68 | 93 | 2.2 | ----- | 0.21 | 0.17 | 2.0 | ----- |

TABLE 5.—*Sugar products.*

| Item | Local name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | |
|------|--|----------------------------|---|-----------|----------|------|--------|----------------|-------------|----------|-------------|------|------------|-----------|-------------|---------|----------------|
| | | | Calo-ries | Mois-ture | Pro-tein | Fat | Ash | Car-bohy-drate | Crude fiber | Calc-ium | Phos-phorus | Iron | Vita-min A | Thia-mine | Ribo-flavin | Nia-cin | Ascor-bic acid |
| | | | | gm | gm | gm | gm | gm | gm | mg | mg | A | IU | mg | mg | mg | mg |
| 1 | Manipis na piraso ng matamis na saging | Banana chips | 503 | 3.6 | 2.9 | 24.9 | 1.8 | 66.8 | 0.9 | 53 | 69 | 1.4 | 514 | 0.05 | 0.06 | 0.7 | |
| 2 | Banana crackers | Banana crackers | 513 | 4.2 | 2.1 | 27.7 | 1.0 | 65.0 | 0.7 | 38 | 55 | 2.5 | 190 | 0.05 | 0.07 | 0.6 | |
| 3 | Peanut crackers | Peanut crackers | 541 | 1.6 | 23.0 | 31.2 | 2.1 | 42.1 | 9.8 | 53 | 243 | 3.7 | | 0.19 | 0.10 | 8.6 | |
| 4 | Bibingkang gabi | Taro cake | 184 | 53.0 | 1.0 | 0.2 | 1.3 | 44.5 | 1.1 | 52 | 50 | 2.2 | | 0.04 | 0.02 | 0.6 | |
| 5 | Halayang bayabas | Canned guava jelly | 346 | 14.2 | 0 | 0.6 | 0.04 | 35.2 | | 4 | 4 | 0.9 | | traces | 0.01 | 0.2 | 2 |
| 6 | Karamelo | Caramelo | 400 | 0.4 | 0 | 0.3 | 0.1 | 99.2 | | 3 | 2 | 0.3 | | traces | 0.01 | 0.1 | |
| 7 | Kending kundol | Wax gourd candy | 327 | 18.3 | 0.2 | 0.1 | 0.2 | 31.2 | 1.1 | 50 | 7 | 1.2 | | traces | 0.01 | 0.1 | |
| 8 | Lohuwa sa bigas | Puffed rice | 415 | 6.6 | 3.4 | 8.4 | 0.2 | 31.4 | | 10 | 28 | 3.0 | | 0.02 | 0.02 | 0.4 | |
| 9 | Lohuwa sa linga | Puffed rice with sesame | 503 | 4.3 | 10.7 | 25.2 | 1.4 | 58.4 | | 34 | 330 | 2.0 | | 0.27 | 0.04 | 2.3 | |
| 10 | Lohuwa sa mani | Puffed rice with peanuts | 500 | 5.7 | 16.9 | 25.6 | 1.2 | 50.6 | | 48 | 211 | 4.4 | | 0.12 | 0.06 | 5.2 | |
| 11 | Matamis na linga | Sweet sesame | 496 | 2.4 | 19.1 | 26.7 | 1.1 | 50.7 | 1.1 | 47 | 161 | 1.6 | | 0.12 | 0.03 | 4.5 | |
| 12 | Matamis na maning buo | Whole peanut brittle | 597 | 2.2 | 15.4 | 39.0 | 2.0 | 49.5 | 3.0 | 65 | 180 | 1.8 | | 0.29 | 0.07 | 8.5 | |
| 13 | Matamis na maning durcog | Ground peanut brittle | 512 | 2.3 | 18.5 | 28.5 | 1.3 | 49.4 | 1.7 | 48 | 197 | 1.9 | | 0.14 | 0.06 | 6.2 | |
| 14 | Matamis na maning may linga | Peanut brittle with sesame | 523 | 2.7 | 12.2 | 27.9 | 1.4 | 55.8 | 1.5 | 54 | 178 | 1.3 | | 0.20 | 0.05 | 5.0 | |
| 15 | Matamis na maning may panutsa | Peanut candy | 433 | 8.4 | 10.6 | 14.6 | 1.6 | 64.8 | 1.3 | 32 | 157 | 2.3 | | 0.12 | 0.10 | 4.5 | |
| 16 | Turong matamis na mani | Peanut candy | 535 | 2.3 | 20.3 | 29.9 | 1.4 | 46.1 | 6.4 | 43 | 234 | 2.7 | | 0.11 | 0.09 | 6.7 | |
| 17 | Matamis na bao | Coco honey | 380 | 6.9 | 0.9 | 1.8 | 0.4 | 90.0 | | 7 | 27 | 0.6 | | 0.01 | 0.03 | 0.1 | |
| 18 | Nata de coco | Nata de coco | 142 | 64.7 | 0 | 0.2 | traces | 35.1 | | 12 | 1 | 0.5 | | traces | 0.01 | traces | |
| 19 | Nata de pinya | Nata de pinya | 181 | 55.1 | 0 | 0.2 | traces | 44.7 | | 10 | 4 | 0.7 | | traces | 0.01 | traces | 2 |
| 20 | Pastilyas na gatas | Milk fudge | 370 | 7.4 | 9.9 | 1.4 | 1.8 | 79.5 | | 370 | 224 | 0.6 | | 0.08 | 0.38 | 0.3 | |
| 21 | Pastilyas na ubi | Yam fudge | 344 | 13.8 | 10.2 | 1.8 | 2.4 | 71.8 | | 140 | 174 | 3.0 | | 0.07 | 0.11 | 0.3 | |
| 22 | Pastilyas na langka | Jackfruit fudge | 358 | 8.9 | 8.9 | 0.3 | 2.0 | 79.9 | 0.2 | 350 | 250 | 1.8 | 14 | 0.07 | 0.35 | 0.2 | 4 |
| 23 | Matamis na pili | Candied pilinut | 595 | 1.0 | 7.5 | 41.2 | 1.3 | 48.6 | 4.9 | 91 | 321 | 3.7 | | 0.19 | 0.04 | 0.1 | 5 |
| 24 | Turong pili | Candied pilinut | 539 | 1.7 | 5.7 | 30.1 | 1.7 | 61.2 | 23.2 | 58 | 277 | 5.7 | | 0.15 | 0.06 | 0.2 | 7 |
| 25 | Matamis na rimas | Breadfruit candy | 341 | 15.1 | 0.6 | 0.5 | 0.4 | 33.4 | 1.3 | 90 | 10 | 1.0 | | traces | 0.02 | 0.3 | |
| 26 | Tsampong na sampalok | Candied tamarind | 336 | 2.5 | 0.2 | 0.5 | 1.6 | 95.2 | 0.5 | 36 | 11 | 2.4 | | 0.05 | 0.02 | 0.2 | 2 |
| 27 | Ubido (ubidoise) | Yam fudge | 346 | 8.7 | 6.7 | 1.6 | 1.8 | 31.2 | | 78 | 65 | 2.6 | | 0.07 | 0.15 | 0.3 | |

TABLE 6.—Miscellaneous products.

| Item | Local name | English name | Representative values for 100 gm edible portion | | | | | | | | | | | | | | | |
|------|----------------------------------|---------------------------------|---|-----------|----------|------|------|----------------|-------------|----------|--------------|------|------------|-----------|-------------|---------|----------------|----|
| | | | Calo-ries | Mois-ture | Pro-tein | Fat | A. h | Car-bohy-urate | Crude-fiber | Cal-cium | Phos-pho-rus | Iron | Vita-mjn A | Thia-mine | Ribo-flavin | Nia-cin | Ascor-bic acid | |
| | | | | gm | gm | gm | gm | gm | gm | gm | mg | mg | mg | IU | mg | mg | mg | mg |
| 1 | Sarsang saging..... | Banana sauce..... | 221 | 42.1 | 0.7 | 0.2 | 3.0 | 54.0 | 0.5 | 33 | 14 | 1.6 | 20 | 0.02 | 0.02 | 0.3 | 2 | |
| 2 | Binusang kakaw..... | Roasted cocoa beans..... | 374 | 0.5 | 11.6 | 34.1 | 3.4 | 50.4 | 27.8 | 235 | 446 | 2.9 | ----- | 0.03 | 0.13 | 1.3 | ----- | |
| 3 | Kapeng pulbos..... | Soluble coffee..... | 356 | 2.7 | 17.8 | 1.3 | 9.9 | 63.3 | ----- | 296 | 368 | 5.9 | ----- | traces | 0.22 | 41.6 | ----- | |
| 4 | Sarsang kamatis..... | Tomato sauce..... | 44 | 37.2 | 1.2 | 0.3 | 2.2 | 9.1 | 1.5 | 26 | 31 | 1.3 | 874 | 0.07 | 0.03 | 1.3 | 8 | |
| 5 | Katsup na kamatis..... | Tomato catsup..... | 134 | 63.6 | 1.9 | 0.2 | 3.1 | 31.2 | 0.3 | 30 | 29 | 1.2 | 753 | 0.08 | 0.04 | 1.7 | 11 | |
| 6 | Gulamang pula..... | Red Ceylon moss..... | 311 | 17.9 | 2.6 | 0.4 | 4.7 | 74.4 | ----- | 438 | 23 | 27.0 | ----- | 0.02 | 0.02 | 0.1 | ----- | |
| 7 | Likyam..... | Likiam..... | 246 | 32.2 | 1.9 | 1.6 | 8.2 | 56.1 | 1.6 | 90 | 66 | 2.2 | 180 | 0.03 | 0.05 | 0.6 | 0 | |
| 8 | Nido..... | Bird's nest..... | 281 | 24.8 | 37.5 | 0.3 | 5.3 | 32.1 | ----- | 435 | 18 | 3.3 | ----- | traces | 0.02 | 0.2 | ----- | |
| 9 | Inangkat na pulbos ng kakaw..... | Imported powdered cocoa..... | 281 | 3.1 | 20.0 | 21.1 | 4.8 | 50.9 | ----- | 112 | 592 | 6.6 | ----- | 0.02 | 0.02 | 2.2 | ----- | |
| 10 | Katutubong pulbos ng kakaw..... | Local cocoa..... | 272 | 2.7 | 21.7 | 19.8 | 5.9 | 49.9 | ----- | 133 | 647 | 16.7 | ----- | 0.07 | 0.20 | 2.1 | ----- | |
| 11 | Sepas na manok..... | Cooked chicken noodle soup..... | 25 | 93.3 | 1.6 | 0.4 | 1.0 | 3.7 | ----- | 36 | 5 | 0.6 | ----- | 0.14 | 0.30 | 0.2 | traces | |
| 12 | Tsa..... | Tea..... | 357 | 7.4 | 21.7 | 1.0 | 4.6 | 65.3 | 11.2 | 656 | 258 | 18.4 | 2097 | 0.01 | 0.70 | 6.8 | ----- | |
| 13 | Tuba..... | Fermented palm sap..... | 47 | 88.1 | 0.2 | 0.2 | 0.3 | 11.2 | ----- | 32 | 13 | 0.5 | ----- | 0.01 | 0.03 | 0.5 | 6 | |