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CONVERSION FACTORS AND WEIGHTS AND MEASURES FOR AGRICULTURAL COMMODITIES
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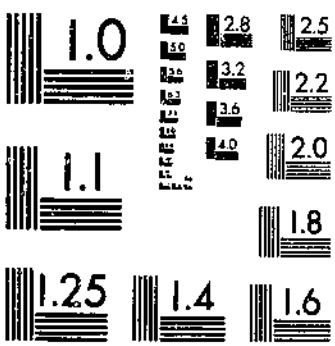
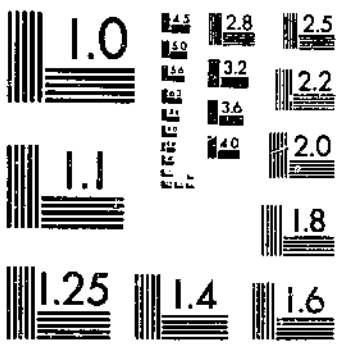


MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

STATISTICAL BULLETIN NO. 362

CONVERSION FACTORS and WEIGHTS AND MEASURES

for Agricultural Commodities and Their Products

U.S. DEPARTMENT OF AGRICULTURE/ECONOMIC RESEARCH SERVICE

INDEX TO TABLES

CONVERSION FACTORS AND WEIGHTS AND MEASURES FOR AGRICULTURAL COMMODITIES AND THEIR PRODUCTS 1/

The tables in this report were compiled to provide a manual of uniform conversion factors for use in statistical, research, and service programs of the Department. A reasonably complete set of all-purpose factors is presented. However, for a particular commodity, the data may not be entirely adequate for all uses.

The data are intended to represent overall averages except where indicated. However, in some instances the averages are only approximations. All conversion factors included are based on the most recent and reliable information available and are intended to reflect current conditions and practices. Factors for many commodities change from year to year; therefore, caution should be exercised when using these data to compile or revise historical series.

The number of significant figures shown for many factors does not necessarily indicate the degree of precision. Some of the factors are in common use and carry more significant digits than might be justified when considering the accuracy of the data from which they were derived.

Data in this report were compiled by a Task Force on Conversion Factors and Weights and Measures. The Task Force was directed by a Steering Committee of which William S. Hoofnagle was chairman. Mr. Hoofnagle succeeded Robert E. Olson in September 1964. Henry T. Badger was executive secretary. Eleven commodity subcommittees provided information for this report--10 from within the Department and one from Fish and Wildlife Service, Department of the Interior.

The following agencies within the Department of Agriculture participated in the preparation of this report: Consumer and Marketing Service, Agricultural Research Service, Agricultural Stabilization and Conservation Service, Economic Research Service, Foreign Agricultural Service, and Statistical Reporting Service.

1/ This publication is a revision of Conversion Factors and Weights and Measures for Agricultural Commodities and Their Products, published by the U. S. Department of Agriculture in May 1952.

Table 1.--Whole milk equivalents and milk solids factors

Commodity	Milk solids content 1/			Amounts of product from 100 pounds of whole milk 2/	Factors for obtaining whole milk equivalent in terms of: 3/	
	Fat solids	Nonfat solids	Total milk solids		Fat solids 4/	Nonfat solids 5/
	1	2	3	4	5	6
	Pct.	Pct.	Pct.	Lb.	Lb.	Lb.
Whole milk from farm-wholesale	3.7	8.62	12.32	100	1.000	1.000
Milk from plant - retail	3.5	8.64	12.14	99.76	.946	1.002
Fresh milk concentrate - 3 to 1	10.5	25.92	36.42	33.26	2.838	3.007
Flavored drink	2.0	8.77	10.77	98.30	.541	1.017
Chocolate flavored drink	2.1	8.4	10.5	---	.568	.974
Chocolate flavored milk	3.2	8.5	11.7	---	.865	.986
Skim milk - regular	.1	8.94	9.04	96.42	.027	1.037
- modified	.1	10.0	10.1	---	.027	1.160
- modified	2.0	10.0	12.0	---	.541	1.160
Cultured buttermilk - (from modified skim milk)	1.0	11.0	12.0	---	.270	1.276
Half and half - regular	12.4	7.84	20.24	30.0	3.351	.909
- modified	11.5	9.0	20.5	---	3.108	1.044
Cream - sour (modified)	18.5	8.5	27.0	---	5.000	.986
- coffee	18.0	7.34	25.34	20.56	4.865	.852
- table	20.0	7.17	27.17	18.50	5.405	.832
- light whipping	30.0	6.26	36.26	12.33	8.108	.726
- heavy whipping	36.0	5.73	41.73	10.28	9.730	.665
- sweetened	40.0	5.37	45.37	9.25	10.811	.623
- dry	50.0	49.2	99.2	7.4	13.514	5.708
- plastic	80.0	1.1	81.1	4.62	21.622	.128
Butter - domestic	80.3	1.0	81.3	4.61	21.702	.116
- export	82.5	1.5	84.0	4.48	22.297	.174
- export	83.5	1.5	85.0	4.43	22.568	.174
Butteroil and anhydrous milk fat	99.8	0.1	99.9	---	26.973	.012
Buttermilk	.5	8.8	9.3	97.95	.135	1.021
Dry buttermilk	5.3	91.9	97.2	9.38	1.433	10.661
Condensed or evaporated buttermilk	1.5	26.4	27.9	---	.405	3.063
Condensed milk - sweetened	8.5	19.5	28.0	---	2.297	2.262
- unsweetened	7.9	18.0	25.9	---	2.135	2.088
Condensed skim milk - sweetened or unsweetened	0.2	29.8	30.0	---	.054	3.457
Evaporated milk	7.9	18.0	25.9	46.84	2.135	2.088
Dry whole milk	26.5	71.0	97.5	12.14	7.162	8.237
Nonfat dry milk - regular	0.8	96.2	97.0	8.96	.216	11.160
- instant	0.7	95.3	96.0	9.05	.189	11.056
Dry malted milk	8.0	18.9	26.9	---	2.162	2.192
Casein	0.3	92.5	92.8	---	.081	10.731
Cheddar cheese - natural - minimum legal comp.	30.5	30.5	61.0	---	8.243	3.538
- natural - commercial comp.	32.2	30.8	63.0	11.49	8.703	3.573
- pasteurized process cheese	30.0	30.0	60.0	---	8.108	3.480
- pasteurized process cheese food	23.0	33.0	56.0	---	6.216	3.828
- pasteurized process cheese spread	20.0	20.0	40.0	---	5.405	2.320

Continued --

Table 1.--Whole milk equivalents and milk solids factors--Continued

Commodity	Milk solids content 1/			Amounts of product from 100 pounds of whole milk 2/	Factors for obtaining whole milk equivalent in terms of: 3/	
	Fat solids	Nonfat solids	Total milk solids		Fat solids 4/	Nonfat solids 5/
	1	2	3	4	5	6
	Pct.	Pct.	Pct.	Lb.	Lb.	Lb.
Swiss cheese - natural - minimum legal comp.	25.4	33.6	59.0	---	6.865	3.898
- natural - commercial comp.	28.0	33.0	61.0	13.21	7.568	3.828
- pasteurized process cheese	26.9	33.1	60.0	---	7.270	3.840
Italian types, soft	24.8	30.2	55.0	---	6.703	3.503
- hard grating	23.5	43.5	67.0	---	6.351	5.046
Blue mold, domestic type - natural	30.5	29.5	60.0	12.13	8.243	3.422
Cream cheese - natural	37.0	12.0	49.0	---	10.000	1.392
Cottage cheese curd	0.3	20.7	21.0	41.64	.081	2.401
Creamed cottage cheese	4.2	17.5	21.7	---	1.135	2.030
Whey - unseparated (from mfg. of cheddar cheese)	0.4	6.6	7.0	---	.108	.766
Dry whey - from separated cheddar whey	1.2	94.3	95.5	---	.324	10.940
Lactose - from separated cheese whey (98% lactose)	---	99.75	99.75	---	---	11.572
Ice cream	10.0	11.0	21.0	---	2.703	1.276
	12.0	10.0	22.0	---	3.243	1.160
	14.0	9.0	23.0	---	3.784	1.044
	16.0	8.0	24.0	---	4.324	.928
Ice milk	2.0	14.0	16.0	---	.541	1.624
	4.0	12.0	16.0	---	1.081	1.392
	6.0	11.0	17.0	---	1.622	1.276
Fruit sherbet	2.0	2.0	4.0	---	.541	.232

1/ Based on Federal Food & Drug Standards of Identity & U.S. Average Factory Production Data.

2/ Based on the total utilization of the fat or solids-not-fat from 100 pounds of milk. No fat or solids-not-fat were added; therefore, parts of the total of either the fat or solids-not-fat were unusable.

3/ For computing whole milk equivalents from milk of composition other than that of the single test (3.7 fat and 8.62 solids-not-fat) shown, use the following: (1) Fat in the product ÷ fat in the milk = whole milk equivalent in terms of fat as in colume 5. Example--To compute the whole milk equivalent at 4.0 percent fat of 18 percent cream: .18 ÷ .04 = 4.50. (2) (1 - fat in the product) ÷ (1 - fat in the milk) x nonfat solids in the milk = nonfat solids in the product. Example--For 18% cream: (1 - .18) ÷ (1 - .04) x .09 = .077 or 7.7 percent nonfat solids in the cream. The first part of the formula (1 - .18) ÷ (1 - .04) provides the whole milk equivalent in terms of nonfat solids as in column 6. (3) To determine nonfat solids equivalents for mellorine type frozen desserts use the factors for ice cream mixes of equivalent fat percentages.

4/ Computed from column 1 on basis of whole milk containing 3.7% fat.

5/ Computed from column 2 on basis of whole milk containing 8.62% solids-not-fat.

Table 2.--Skim milk, buttermilk, and whey equivalents

Commodity	Conversion to --	Factors
Skim milk cheese	Fluid skim milk	16.0
Cottage, pot, and bakers' cheese	do.	6.25
Nonfat dry milk	do.	11.0
Dry casein	do.	35.7
Condensed and evaporated skim milk (sweetened or unsweetened)	do.	3.0
Concentrated skim milk (for animal feed)	do.	3.0
Dry buttermilk	Fluid buttermilk	11.0
Condensed or evaporated buttermilk	do.	3.0
Dry whey	Fluid whey	13.5
Dry lactose	do.	25.0

Table 3.--Net weight of standard units

Commodity	Unit	Pounds per unit 40° F.	Pounds per unit 50° F.	Pounds per unit 68° F.
Whole milk - 3.7 fat -- 8.62 S.N.F.	Gallon	8.62	8.60	8.58
Milk, standardized - 3.5 fat -- 8.64 S.N.F.	do.	8.62	8.61	8.58
Skim milk (regular)	do.	8.64	8.63	8.61
Skim milk (modified)	do.	8.68	8.67	8.65
Cultured buttermilk	do.	8.66	8.66	8.62
Half and half (regular)	do.	8.56	8.54	8.50
Chocolate flavored milk	do.	8.81	8.80	8.78
Chocolate flavored drink	do.	8.81	8.80	8.78
Cream 18%	do.	8.52	8.50	8.45
20%	do.	8.51	8.49	8.43
36%	do.	8.41	8.37	8.29
40%	do.	8.38	8.35	8.25
Evaporated milk 1/	48/14½ oz. (cans)	43.50	--	--
Condensed milk (sweetened)	48/14 oz. (cans)	42.00	--	--
Condensed milk (sweetened)	48/15 oz. (cans)	45.00	--	--
Ice cream - 10-12% fat	Gallon	--	--	4.50
- 12% mix (liquid)	do.	--	--	9.00
Ice milk - 4% fat	do.	--	--	4.50
- 4% mix (liquid)	do.	--	--	9.00
Fruit sherbet	do.	--	--	6.00

1/ Weights of other can sizes; evaporated milk, 6 ounce, 6.75 pound.

Weight per gallon of liquid ice cream mix and similar products at 68° F. can be obtained by use of the following formula:

$$\text{Specific gravity} = \frac{100}{\frac{\%\text{Fat}}{0.93} + \frac{\%\text{Sugar} + \%\text{Nonfat milk solids}}{1.58} + \%\text{Water}}$$

Specific gravity x 8.34 = Weight of 1 gallon of product.

MEAT AND MEAT PRODUCTS

Conversion factors for meats and meat products are used to calculate the dressed weight equivalent of bone-in cuts, boneless meat, and of cooked, prepared, or canned meat items. The fundamental basis for meat conversion factors is the relation between the amount of usable meat in each cut or carcass and the amount of waste in bone, fat, tendons, ligaments, and inedible trimmings. Factors for converting boneless beef into dressed weight equivalent were developed from data on the yield of boneless meat from various grades of carcasses. The cutting was under commercial boning practices.

Dressed meat equivalent (carcass weight) for beef, veal, lamb and mutton, and pork is defined as follows:

Beef: Weight of the dressed carcass with kidney and suet in.

Veal: Weight of dressed carcass with hide off and kidney and suet in.

Lamb and mutton: Weight of dressed carcass with kidney and suet in.

Pork: "Shipper style" is the weight of the dressed carcass with the head on and the kidneys and leaf fat in. "Packer style" is the weight of the dressed carcass with head off and kidney and leaf fat out. Average composition of these two types of carcasses and of the live weight is estimated as follows:

	Live weight Percent	Shipper-style carcass Percent	Packer-style carcass Percent	Pork, excluding lard Percent
Bone	11	14	14	12
Skin	5	6	6	5
Flesh	43	56	58	83
Fat rendered	18	24	22	---
Edible offal	6	---	---	---
Inedible and waste	17	---	---	---
Total	100	100	100	100

Conversion factors for all canned meats and sausages are based upon the weight of boneless, and in the case of pork, skinless meat in each unit of finished product. It should be noted that formulas for commercial canned meats may vary materially from the factors herein stated, depending upon relative prices and availabilities of different types of meat and edible offal items and upon the different processing methods used. Generally, cured and smoked sausage products contain 88% meat and/or edible offals. Products with cereal or other extenders in the product name contain 85 1/2% meat and/or edible offals. The amount and kind of meat and edible offals varies from product to product and because of price relationships of raw materials at time of manufacture. Liver products such as liver sausage, liver spreads, etc., usually contain 30% liver. Most dry sausages can be converted to a meat equivalent by using a factor of 1.25.

Table 4.--Average live weight and dressing yields of cattle, calves, sheep and lambs, and hogs commercially slaughtered, 1954-63 and 1963

Specie	Live weight		Dressing yields	
	Average 1954-63	1963	Average 1954-63	1963
	Pounds	Pounds	Percent	Percent
Cattle	983	1,024	56.1	57.5
Calves	219	220	55.7	56.4
Sheep and lambs	97	98	48.2	48.9
Hogs	236	238	1/76.1	1/76.3
Hogs, excluding lard 2/	---	---	57.9	59.8

1/ Dressing yield for shipper-style pork carcass. To obtain packer-style pork carcass, subtract 7.0.

2/ Pork excluding lard is computed by deducting the weight of fats rendered into lard or pork fat from the shipper-style carcass. Shipper-style carcass is computed by adding 7% to packer-style carcass, the 7% to include 4.5% head, 2.25% leaf fat, and 0.25% kidney, or the items normally on the shipper-style carcass.

Table 5.--Beef: Yield of wholesale cuts from the carcass and yield of boneless meat from wholesale cuts

Carcass and wholesale cuts	Yield of bone-in wholesale cuts		Yield of boneless meat from wholesale cuts 1/	
	Prime, Choice, and Good	Canner and Cutter	Prime, Choice, and Good	Canner and Cutter
	Percent	Percent	Percent	Percent
Carcass, whole	100.0	100.0	66.0	73.0
Forequarter	51.5	52.0	69.0	72.5
Rib	9.5	8.5	65.0	71.0
Chuck, square cut	26.5	28.5	73.5	76.0
Plate	8.5	7.5	63.5	74.0
Brisket	4.0	4.0	58.5	64.0
Foreshank	3.0	3.5	58.0	53.5
Hindquarter	48.5	48.0	63.0	73.0
Rump	5.5	6.0	63.0	65.5
Round, rump and shank off	14.0	16.0	79.5	87.0
Shank	3.0	3.5	46.0	44.5
Sirloin	9.0	10.0	72.5	76.0
Short loin	7.0	6.5	70.5	71.0
Flank	6.0	4.5	49.0	75.0
Kidney knob	4.0	1.5	---	---

1/ All cuts trimmed of fat exceeding that amount normally left on retail cuts (1/4" to 1/2").

Table 6.--Beef, cured, corned, pickled, dried or dehydrated: Relation between procurement and carcass weights

Product	Factors for determining equivalent carcass weight
Boneless beef:	
Cured, corned, or pickled: 1/	
Brisket, or corned beef unspecified	1.08
Plate, or family beef	1.31
Dried or chipped beef, sliced or unsliced	2.08
Dehydrated beef	3.00

1/ Based on 20% gain in pickling brisket from fresh weight, and 10% gain in pickling plate.

Table 7.--Beef: Conversion factors for determining equivalent carcass weight of boneless wholesale cuts and for converting boneless wholesale cuts to equivalent bone-in cuts of various U.S. grades

Carcass and wholesale cuts	Factors for converting boneless wholesale cuts to equivalent carcass weight		Factors for converting boneless wholesale cuts to equivalent bone-in cuts	
	Prime, Choice, and Good	Canner and Cutter	Prime, Choice, and Good	Canner and Cutter
Carcass, whole	1.52	1.37	1.52	1.37
Forequarter	1.60	1.36	1.45	1.38
Rib	1.49	1.33	1.55	1.41
Chuck, square cut	1.69	1.42	1.37	1.32
Plate	1.46	1.38	1.58	1.36
Brisket	1.35	1.21	1.71	1.56
Foreshank	1.34	1.00	1.73	1.88
Hindquarter	1.44	1.37	1.60	1.37
Rump	1.44	1.23	1.60	1.52
Round, rump and shank off	1.84	1.63	1.26	1.15
Shank	1.06	.84	2.17	2.25
Sirloin	1.67	1.42	1.38	1.32
Short loin	1.63	1.33	1.42	1.41
Flank	1.12	1.41	2.05	1.33

Table 8.--Veal and calf: Yield of wholesale cuts from the carcass and yield of boneless meat from wholesale cuts

Carcass and wholesale cuts	Yield of bone-in cuts		Yield of boneless meat from wholesale cuts 1/	
	Choice and Good	Standard, Utility, and Cull	Choice and Good	Standard, Utility, and Cull
	Percent	Percent	Percent	Percent
Carcass, whole	100.0	100.0	68.5	69.5
Foresaddle	48.6	49.7	70.4	69.3
Chuck	26.1	27.6	73.5	72.8
Breast	14.3	14.3	62.8	62.6
Hotel rack, 7 rib	8.2	7.8	73.8	69.3
Hindsaddle	51.4	50.3	66.6	70.1
Leg, includes sirloin	36.4	38.8	72.8	73.5
Loin	7.0	6.4	73.3	69.8
Flank	4.8	3.4	53.4	68.5
Kidney knob	3.2	1.7	---	---

1/ All cuts trimmed of fat exceeding that amount normally left on retail cuts (¼" to ½").

Table 9.--Veal and calf: Conversion factors for determining equivalent carcass weight of bone-in cuts and for converting boneless meat to the equivalent bone-in cuts of various U.S. grades

Carcass and wholesale cuts	Factors for converting bone-in cuts to equivalent carcass weight		Factors for converting boneless wholesale cuts to equivalent bone-in cuts	
	Choice and Good	Standard, Utility, and Cull	Choice and Good	Standard, Utility, and Cull
Carcass, whole	1.00	1.00	1.46	1.44
Foresaddle	1.03	.99	1.42	1.45
Chuck	1.07	1.04	1.36	1.38
Breast	.92	.89	1.59	1.62
Hotel rack, 7 rib	1.08	.99	1.35	1.45
Hindsaddle	.97	1.00	1.51	1.44
Leg, includes sirloin	1.06	1.05	1.38	1.37
Loin	1.07	.99	1.36	1.45
Flank	.78	.97	1.87	1.48

Table 10.--Pork: Yield of boneless meat from carcass and wholesale cuts of pork, and conversion factors for determining weight of pork excluding lard

Carcass and wholesale cuts	Approximate percent of--		Percent of: boneless skinless meat, fresh	Factors for determining equivalent weight of pork excluding lard 1/			
	Live weight	Pork, excluding lard		Fresh or frozen	Cured	Smoked	Ready-to-eat
Total pork excluding lard 2/ 3/	57.9	100.0	83.0	1.00	---	---	---
Packer-dressed carcass	69.1	---	---	.82	---	---	---
Shipper-dressed carcass	76.1	---	---	.74	---	---	---
Boneless skinless meat, all-cuts	---	---	---	1.20	---	---	---
Hams: 4/							
Skinned, bone in	13.2	22.8	85.0	1.02	.94	1.02	1.15
Skinless, boneless	---	---	100.0	1.20	1.10	1.20	1.35
Shoulders: 5/							
Skinned, bone in	---	---	86.9	1.04	.98	1.06	---
Skinless, boneless	---	---	100.0	1.20	1.13	1.22	---
Picnics: 4/							
Skinned, bone in	6.1	10.5	81.9	.98	.90	.98	1.10
Skinless, boneless	---	---	100.0	1.20	1.10	1.20	1.35
Butts, skinless:							
Bone in (Boston)	4.8	8.3	93.3	1.12	1.08	1.17	1.31
Boneless	---	---	100.0	1.20	1.15	1.25	6/1.40
Loins:							
Bone in	10.0	17.3	78.3	.94	.88	1.04	---
Semiboneless	---	---	87.0	1.04	.98	1.16	---
Boneless	---	---	100.0	1.20	1.13	1.33	---
Bellies:							
Bacon, slab, skin on	11.5	19.9	91.8	1.10	1.10	1.22	---
Bacon, sliced, skin off	---	---	100.0	1.20	1.20	1.33	---
Jowls (bacon squares)	1.8	3.1	88.0	1.06	1.06	1.12	---
Spareribs	1.5	2.6	58.0	.70	.67	.73	---
Feet, front 7/	1.0	1.7	10.0	.12	.10	---	---
Tails	.1	.2	20.0	.24	.23	---	---
Neckbones	1.0	1.7	37.4	.45	.43	.45	---
Trimmings, lean	2.7	4.7	87.2	1.05	---	---	---
Fat backs and plates, not rendered 8/	2.9	5.0	88.3	1.06	1.04	1.12	---
Head, snout, and cheek meat	.7	1.2	87.2	1.05	---	---	---
Snouts, ears, and lips	.6	1.0	10.0	.12	.12	---	---
Other cuts or items:							
Canadian-style bacon	---	---	100.0	1.20	1.15	1.41	---
Tenderloins	---	---	100.0	1.20	1.15	1.41	---
Briskets 9/	---	---	91.8	1.10	1.10	1.22	---
Hocks and knuckles	---	---	25.0	.30	.29	.30	---
Salt pork	---	---	90.0	1.08	1.08	---	---
Pork, dehydrated	---	---	---	---	2.18	---	---

1/ Edible offal items are excluded when converting to weight of pork excluding lard. These include brains, casings, heart, kidneys, liver, stomach or tripe, sweetbreads and tongue.

2/ Pork excluding lard is computed by deducting the weight of fats rendered into lard or pork fat from the shipper-style carcass. Shipper-style carcass is computed by adding 7% to packer-style carcass, the 7% to include 4.5% head, 2.25% leaf fat, and 0.25% kidney, or the items normally on the shipper-style carcass.

3/ 1954-63 average yield for federally inspected slaughter.

4/ Skinned hams or picnics have about 50% of the skin removed. Skinless cuts have all of the skin removed.

5/ Shoulder is picnic, butt, and plate, before cutting.

6/ This factor may also be used for Capicola butts.

7/ Because of gambrel damage hind feet usually go to tankage.

8/ Fat backs and plates amount to approximately 9% of live weight. During the 3-year period 1947-49, however, only 2.9% were sold as such and the balance rendered into lard. The amount rendered and hence, the percentage of pork excluding lard represented by these items, will vary from month to month, and year to year, depending on the price of lard and fat back or salt pork.

9/ Brisket is shoulder end of belly.

Table 11.--Lamb: Yield of boneless meat from carcass and wholesale cuts of various U. S. grades, and conversion factors for determining carcass weight equivalent of boneless meat and bone-in cuts

Wholesale cuts	Percent of carcass weight	Percent of boneless meat 1/		Factors for determining equivalent carcass weight 3/
		Average above Cull 2/	Cull	
Boneless meat, all cuts:				
Average above Cull	---	---	---	1.39
Cull	---	---	---	1.60
Bone-in cuts:				
Carcass, whole 4/	100.0	72.0	62.5	1.00
Foresaddle, whole	50.0	67.9	58.5	.94
Breast, including shank	14.0	67.0	57.7	.93
Chuck	25.0	73.2	63.0	1.02
Hotel rack	11.0	72.7	62.6	1.01
Hindsaddle, whole	50.0	76.1	65.5	1.06
Leg	33.0	78.8	67.9	1.10
Loin, including flank and kidney	17.0	81.1	69.8	1.13

1/ Commercial boning practice.
2/ U.S. grades for lamb are Prime, Choice, Good, Utility, and Cull.
3/ Edible offal items are excluded when converting to carcass weight. These include brains, casings, heart, liver, stomach or tripe, and tongue.
4/ Pluck out.

Table 12.--Edible offal: Relation between procurement and product weights

Product	Factors for converting to equivalent weight of edible offal 1/
Fresh or frozen: (all species)	
Brains	1.00
Cheek meat 2/	1.00
Head meat 2/	1.00
Heart	1.00
Kidneys 3/	1.00
Liver	1.00
Stomach or tripe	1.00
Sweetbreads	1.00
Tail 2/	1.00
Tongue	1.00
Cured:	
Corned tongue	.90
Smoked tongue	1.00
Canned:	
Liver pate	.80
Liver spread	.30
Meat food product, potted or deviled	1.00
Tongue	1.00

1/ Edible offal is defined as all edible parts from cattle, calves, hogs and sheep that are not included in the carcass weight, or pork excluding lard as carried in reported meat production by the U.S. Department of Agriculture.

2/ Not applicable to pork. The head and tail are on the pork shipper-style carcass from which pork excluding lard is computed, hence, pork cheek and head meat and tail are not classified as edible offal.

3/ Kidneys are usually left in beef, veal, lamb, and mutton carcasses, but they are classified as edible offal.

Table 13.--Canned meats - products canned by commercial methods: Raw meat content, and factors for determining carcass weight equivalent

Canned meat products	Pounds of boneless raw meat per 100 pounds of product		Factors for obtaining equivalent carcass weight of --1/	
	Beef	Pork	Beef	Pork, excluding lard
Beans, baked with pork	---	1	---	0.05
Beans with bacon	---	13	---	.16
Beans or lima beans with ham	---	12	---	.14
Beef and gravy	72	---	0.99	---
Beef, corned 2/	143	---	1.96	---
Beef, dried, sliced	153	---	2.10	---
Beef, parboiled and steam-roasted 2/	143	---	1.96	---
Beef stew and vegetables 3/	25	---	.34	---
Beef tamales in sauce	20	---	.27	---
Chili con carne with beans 4/	25	---	.34	---
Chili con carne without beans 4/	40	---	.55	---
Chow mein or chop suey vegetables:				
With beef	12	---	.16	---
With pork	---	12	---	.14
Ham:				
Canned whole ham, boneless, skinless and defatted	---	114	---	1.37
Deviled ham	---	98	---	1.18
Ham spread	---	50	---	.60
Pressed ham	---	98	---	1.18
Spiced ham	---	98	---	1.18
Hash:				
Beef	50	---	.68	---
Corned beef 2/	50	---	.68	---
Pickled pigs feet:				
Boneless	---	100	---	1.20
Semiboneless	---	25	---	.30
Pork and gravy	---	72	---	.99
Pork luncheon meat	---	98	---	1.18
Pork sausage	---	100	---	1.20

1/ Beef factors are based on average yield of 73% from Canner and Cutter grades; pork factors on a yield of 83% boneless, skinless pork from weight of pork excluding lard.

2/ Excludes 5% of meat ingredient, which may be beef head, cheek, or heart meat.

3/ Raw-meat content is applicable to lamb or other meat stews.

4/ Excludes 25% of meat ingredient which may be beef head, cheek, or heart meat.

Table 14.--Commercial imports: Factors for obtaining carcass weight equivalents

Classification	Commodity number 1/	Factors
Beef:		
Fresh or chilled	106.1020	1.00
Frozen	106.1040	1.00
Boneless beef	106.1060	1.37
Beef or veal	107.4000	1.18
Cured or pickled	107.4500	1.18
Canned beef	107.5000	1.40
Canned sausage	107.2000	1.20
Other sausage	107.2520	1.20
Beef and veal, prepared or preserved, except sausage	107.5500) 107.6020) 107.6040)	1.10
Veal:		
Fresh, chilled, frozen	106.1080	1.00
Pork:		
Fresh or chilled	106.4020	1.00
Frozen	106.4040	1.00
Hams and shoulders, not boned, not cooked	107.3020	1.10
Bacon, not cooked	107.3040	1.10
Canned hams and shoulders	107.3520	1.35
Canned bacon	107.3540	1.20
Other canned pork	107.3560	1.18
Fresh sausage	107.1000	1.05
Other sausage	107.1500	1.20
Other pork, prepared and preserved	107.3060	1.10
Lamb:		
Fresh, chilled, or frozen	106.3000	1.00
Mutton:		
Fresh, chilled, or frozen	106.2020	2/2.00
Goat:		
Fresh, chilled, or frozen	106.2040	2/2.00
Mixed sausage:	107.2540	
Beef		.64
Pork		.54

1/ Commodity numbers are from import schedule "A", U.S. Department of Commerce.
2/ Most imports are boneless.

Table 15.--Commercial exports: Factors for obtaining carcass weight equivalents

Classification	Commodity number 1/	Factors			
		Beef	Veal	Lamb and mutton	Pork
Beef and veal:					
Fresh or frozen beef	011.1010	1.00	---	---	---
Fresh or frozen veal	011.1020	---	1.00	---	---
Dried, salted, smoked beef	012.9010	1.18	---	---	---
Pork:					
Salted, dried, or smoked:					
Hams and shoulders	012.1010	---	---	---	1.10
Bacon	012.1020	---	---	---	1.16
Other	012.1030	---	---	---	1.00
Fresh or frozen:					
Carcasses	011.3010	---	---	---	.82
Hams and shoulders	011.3020	---	---	---	1.10
Other	011.3030	---	---	---	1.00
Canned	012.1040	---	---	---	1.18
Sausage:					
Canned	013.4010	.66	---	---	.54
Not canned	013.4020	.66	---	---	.54
Lamb and mutton	011.2000	---	---	1.00	---
Other canned meats	012.9020	1.00	---	---	---
Canned meats n.e.c.	013.8030	.40	.10	.10	.40
Canned meat specialties	013.8020	.10	---	.10	.10
Prepared meat except canned n.e.c.	013.8050	.20	---	---	.20

1/ Commodity numbers are from export schedule "B," U.S. Department of Commerce.

Table 16.--Average live weight and ready-to-cook yield by kind and class, 1961 - 1963 1/

Kind of poultry	Average live weight				Yield, live to ready-to-cook 2/			
	1961	1962	1963	1961-63 weighted average	1961	1962	1963	1961-63 weighted average
	Pounds	Pounds	Pounds	Pounds	Pct.	Pct.	Pct.	Pct.
Chickens								
Young	3.4	3.4	3.5	3.4	72.4	72.3	72.4	72.4
Mature	4.9	4.8	4.8	4.8	68.8	68.3	67.7	68.3
All	3.5	3.5	3.6	3.5	72.0	72.0	72.0	72.0
Turkeys								
Fryer-roaster	8.7	8.7	8.7	8.7	77.5	77.7	77.4	77.5
Young	18.8	19.4	19.6	19.3	79.6	79.7	80.0	79.8
Old	19.0	19.0	19.4	19.1	80.7	79.1	79.4	79.8
All	17.0	17.4	17.7	17.4	79.4	79.5	79.7	79.6
Ducks	6.3	6.4	6.4	6.3	70.3	70.6	70.9	70.6
Geese	10.8	10.8	11.9	11.2	76.7	75.8	72.1	74.7

1/ Based on total poultry slaughtered under Federal inspection.

2/ Yield of ready-to-cook weight, including neck and giblets as a percentage of total live weight inspected.

Table 17.--Broilers: Weight of parts in relation to carcass weight 1/

Broiler parts	Unit	Weight of ready-to-cook broiler carcass in ounces 2/				
		26	30	34	38	42
Wings:						
Calculated average	Ounces	1.9	2.1	2.4	2.7	2.9
Range for 95% of parts	do.	1.6-2.1	1.9-2.4	2.1-2.7	2.4-2.9	2.7-3.2
Calculated percentage of carcass weight	Percent	6-8	6-8	6-8	6-8	6-8
Drumsticks:						
Calculated average	Ounces	2.1	2.5	2.8	3.1	3.5
Range for 95% of parts	do.	1.8-2.5	2.1-2.8	2.4-3.2	2.8-3.5	3.1-3.8
Calculated percentage of carcass weight	Percent	7-10	7-9	7-9	7-9	7-9
Thighs:						
Calculated average	Ounces	2.8	3.2	3.6	4.1	4.5
Range for 95% of parts	do.	2.2-3.3	2.7-3.7	3.1-4.2	3.5-4.6	4.0-5.1
Calculated percentage of carcass weight	Percent	9-13	9-12	9-12	9-12	9-12
Backs:						
Calculated average	Ounces	3.6	4.1	4.6	5.2	5.7
Range for 95% of parts	do.	2.8-4.4	3.3-4.9	3.8-5.4	4.4-6.0	4.9-6.5
Calculated percentage of carcass weight	Percent	11-17	11-16	11-16	12-16	12-16
Breasts:						
Calculated average	Ounces	8.4	9.7	10.9	12.2	13.5
Range for 95% of parts	do.	7.2-9.6	8.4-10.9	9.7-12.2	11.0-13.4	12.2-14.7
Calculated percentage of carcass weight	Percent	28-37	28-36	29-36	29-35	29-35
Total weight of all parts 3/	Ounces	25.6	29.4	33.1	37.2	41.0

1/ Table based on equations in table 3, page 28 of Marketing Research Report No. 604, Relations for Weight and Sizes of Broiler Parts to Carcass Weights, U.S. Dept. Agr., in cooperation with the University of Georgia.

2/ Ice-packed carcass, weighed after giblets and neck were removed and free water was allowed to drain from carcass for about 1 minute.

3/ Total of all parts adds to less than carcass weight due to loss from evaporation and weepage (dripping). Weight loss for all carcass in the above-mentioned study was 2.27%.

Table 18.--Factors relating to shell eggs

U. S. weight classes, consumer grades	Minimum net weight per			Minimum quantity of product approximating the amount in one dozen eggs					
	Case (30 doz.)	Dozen		Liquid or frozen			Dried		
				Whole	Yolk	Albumen	Whole	Yolk	Albumen
	Pounds	Ounces	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
Shell eggs:									
Jumbo	56.0	30	1.88	1.64	0.71	0.93	0.42	0.32	0.12
Extra large	50.5	27	1.69	1.48	.64	.84	.38	.29	.11
Large	45.0	24	1.50	1.32	.57	.75	.34	.26	.10
Medium	39.5	21	1.31	1.16	.50	.66	.30	.23	.09
Small	34.0	18	1.12	1.00	.43	.57	.26	.20	.08
Peewee	28.0	15	.94	.80	.35	.47	.21	.16	.06
Average weight sold at retail	1/47.0	25	1/1.57	1.38	.60	.78	.35	.27	.10

1/ The approximate weight of eggs sold at retail is 1.57 pounds per dozen.

Table 19.--Estimated conversion factors for yields of liquid eggs and dried eggs and the moisture content of dried eggs, by types of product, 1961 1/

Egg products	Liquid yield from 30 dozen shell eggs	Yield from 1 dozen shell eggs		Requirements for 1 pound of dried egg products		Yield of dried egg product from		Approximate moisture content of dried egg product 2/
		Liquid egg	Dried egg	Liquid egg	Shell eggs	100 pounds of liquid egg	30 dozen shell eggs	
	Pounds	Pounds	Pounds	Pounds	Dozens	Pounds	Pounds	Percent
Whole eggs	39.50	1.317	0.343	3.84	2.92	26.04	10.29	2 - 3
Albumen (flake)	22.55	.752	.099	7.58	10.10	13.19	2.97	12 - 14
Albumen (spray)	22.55	.752	.096	7.84	10.42	12.76	2.88	5 - 8
Yolk	16.95	.565	.257	2.20	3.89	45.45	7.70	3.5 - 5

1/ The conversion factors were taken from table 16, page 36, The Egg Products Industry of the United States, Kansas Agricultural Experiment Station Bulletin 466, N. Cent. Reg. Res. Pub. No. 154.

2/ Conversion factors were based on an average of the moisture content shown. It is recognized that moisture content may have ranged as high as 5% in some packs of dried whole egg.

Table 20.--Factors relating to specified weights of fish and shellfish 1/

Specification	Factors for converting to --			
	Round weight 2/	Reported weight 3/	Dressed weight 4/	Edible weight 5/
Fish, fresh and frozen:				
Not packaged, domestically produced:				
Round weight	1.000	1.000	0.700	0.450
Dressed weight	1.429	---	1.000	0.643
Edible weight	2.222	---	1.556	1.000
Packaged, domestically produced:				
Round weight	1.000	0.338	---	0.338
Packaged weight	2.959	1.000	---	1.000
Imports, reported weight	1.948	1.000	1.364	0.877
Shellfish, fresh and frozen:				
Not packaged: (shrimp, oysters, crab, lobster, etc.)				
Reported weight	---	1.000	---	0.450
Edible weight	---	2.222	---	1.000
Packaged: (including fresh shucked oysters, clams, shrimp, etc.)	---	1.000	---	1.000
Fish, cured, all types: (includes smoked, pickled, salted and dried fish):				
Reported weight (i.e., cured weight)	1.500	1.000	---	0.750
Edible weight	2.000	1.333	---	1.000

1/ Factors are for specified groups and are not applicable to individual species.
2/ Weight of the fish as removed from the water.
3/ Production as reported to the Fish and Wildlife Service; imports as reported by the Bureau of the Census.
4/ Weight of fin fish after removal of entrails, head, tail, and fins.
5/ Weight of the edible portion of the fish or shellfish.

SHELLFISH

Table 21.--Net weight per gallon of specified shellfish

Product	Pounds per gallon
Clams	8.75
Oysters	8.75
Scallops	8.75

CANNED FISH

Table 22.--Net weight per standard case of specified canned fish and shellfish

Product	Pounds per case
Alewives	45
Anchovies	31.25
Mackerel	45
Salmon	48
Sardines:	
Maine	23.4
Pacific	45
Shad	45
Tuna and tuna-like fish:	
Solid	21
Chunks	19.5
Flakes and grated	18
Crab meat, natural	19.5
Shrimp, wet pack 1/	15
Clam products:	
Whole and minced 1/	15
Juices, chowders, broth, etc.	30
Oysters, natural 1/	14
All other	48

1/ "Cut out" or "drained" weights of can contents are given for shrimp, whole or minced clams, and oysters. Net can contents are given for other products.

Table 23.--Oil-bearing materials: Factors relating to yield of oil and meal per unit crushed 1/

Oil-bearing material	Unit	Factors for obtaining--					
		Crude oil yield		Loss in refining crude oil		Cake or meal yield	
		Pounds	Percent	Pounds	Percent	Pounds	Percent
Babassu kernels	Ton	1,260	63.00	75.6	6.0	---	---
Castor beans 2/	Ton	930	46.50	3/	3/	1,000	50.00
Copra (coconut oil)	Ton	1,280	64.00	84.9	6.63	704	35.20
Corn germ 4/	Ton	750	37.50	56.3	7.50	1,075	53.70
Cottonseed	Ton	337	16.85	22.2	6.58	930	46.50
Flaxseed (linseed) 5/6/	Bu. (56 lb.)	20.2	36.07	NA	NA	37.20	66.43
Mustard seed	Ton	460	23.00	3/	3/	---	---
Olives	Ton	300	15.00	3/	3/	---	---
Palm kernels	Ton	940	47.00	63.0	6.7	---	---
Peanuts 6/,							
Farmers' stock	Ton	574	28.70	28.4	4.94	853	42.66
Shelled peanuts 7/	Ton	806	40.29	39.8	4.94	1,197	59.84
Rapeseed	Ton	700	35.00	NA	NA	NA	NA
Safflower seed	Ton	640	32.00	3/	3/	1,300	65.00
Sesame seed	Bu. (56 lb.)	26.3	47.00	3/	3/	---	---
Soybeans 6/	Bu. (60 lb.)	10.92	18.20	.40	3.70	47.14	78.57
Sunflower seed	Ton	700	35.00	NA	NA	NA	NA
Tung nuts (fruit basis) 8/	Ton	337	16.85	3/	3/	---	---

1/ Based on 1959-63 crop-year averages for soybeans, cottonseed, flaxseed, peanuts, copra (coconut oil) and tung nuts.

2/ Castor oil is reported also as dehydrated. To convert crude to dehydrated, multiply by 0.88; to convert dehydrated to crude, multiply by 1.136.

3/ Not customarily reported as refined oil.

4/ Includes both wet and dry processing. The wet process accounts for about 90% of the total crush. A bushel of corn degermed by the wet process yields about 1.8 pounds of oil, as compared to an oil yield of less than half as much by the dry process.

5/ Total outturn per bushel of flaxseed processed may exceed 56 pounds since some mills add flaxseed screenings to the meal.

6/ See separate tables on flaxseed, peanuts, and soybeans for additional factors.

7/ Straight run peanuts included shelled No. 1 and 2 grade and oil stock. Estimated oil content of peanuts exported averages about 43.5%. Some additional shells are added to residue to produce cake and meal.

8/ 15% moisture.

Table 24.--Average yields of selected oilseeds per harvested acre 1/

Oil-bearing material	Yield per acre			
	Bushels of product 2/	Pounds of product	Pounds of crude oil produced	Pounds of cake or meal produced
Castor beans	3/	1,300	605	650
Cottonseed	4/	800	135	370
Flaxseed	9.3	520	188	345
Peanuts (farmers' stock)	5/	1,260	362	538
Soybeans	24.2	1,450	264	1,140

1/ Yields of oilseeds are 5-year, 1959-63, averages. Yields of oil and cake or meal are based on the 5-year average yields of oilseeds converted to oil and cake or meal equivalents on the basis of the 5-year, 1959-63, crop-year average percentage outturns, as follows:

Oil outturn:
Castor beans, 46.5% (estimated); cottonseed, 16.8%; flaxseed (linseed oil), 36.1%; peanuts, 28.7%; soybeans, 18.2%.

Cake or meal outturn:
Castor beans, 50.0% (estimated); cottonseed, 46.5%; linseed, 66.4%; peanuts, 42.7%; soybeans, 78.6%.

2/ Bushel weights: Flaxseed, 56 pounds; soybeans, 60 pounds.
3/ Castor beans usually are reported in short tons. Yield per acre is 0.650 short tons. Almost all U.S. average is now irrigated, consequently current yields are about 1,500 pounds per acre.
4/ Cottonseed usually is reported in short tons. Yield per acre is 0.400 short tons.
5/ Peanuts frequently are reported in short tons. Yield per acre is 0.630 short tons.

Table 25.--Factors for obtaining fat content of food products 1/

Product	Factors
Edible fats and oils:	
Butter	0.805
Cooking and salad oils	1.00
Lard	1.00
Margarine	.805
Oleo stock and oleo stearin	1.00
Shortening	1.00
Other foods:	
Cereal, pre-mixed (military)	.10
Custard or pudding powder	.05
Mayonnaise	.71
Peanuts, salted 2/	.02
Peanut butter	.50
Potato chips and shoestring potatoes	.35
Salad dressing	.40
Baking mixes:	
Bread or doughnut mix	.05
Cake mix	.12
Gingerbread mix	.09
Baked goods:	
Biscuits	.08
Bread	.02
Cake	.13
Cookies	.12
Crackers	.10
Doughnuts	.22
Pies	.10
Pudding, plum or fruit	.07

1/ Butter content of products is covered in Dairy Products section.
2/ Approximate amount of fat added during the roasting process. The unroasted peanut contains from 45 to 50% fat.

Table 26.--Miscellaneous factors for oils and oilseed products

Product	Factors for obtaining--			
	Refined oil from crude oil	Equivalent crude oil from refined oil	Pounds from gallons	Gallons from pounds
Cooking and salad oils	---	---	7.4	0.135
French dressing	---	---	8.7	.115
Mayonnaise	---	---	8.0	.125
Oil and vinegar dressing	---	---	8.4	.119
Salad dressing	---	---	8.7	.115
Sandwich spread	---	---	8.7	.115
Babassu oil	0.93	1.08	7.5	.133
Castor oil	1/	1/	8.0	.125
Coconut oil	.93	1.08	7.5	.133
Corn oil	.93	1.08	7.7	.130
Cottonseed oil	.93	1.08	7.7	.130
Fish oil (menhaden)	1/	1/	7.7	.130
Grain screenings	1/	1/	7.7	.130
Linseed oil	1/	1/	7.7	.130
Murumuru oil	1/	1/	7.5	.133
Mustardseed oil	1/	1/	7.7	.130
Oiticica oil	1/	1/	7.8	.128
Olive oil	1/	1/	7.6	.132
Ouricury oil	1/	1/	7.5	.133
Palm oil	.93	1.08	7.7	.130
Palm kernel oil	.93	1.08	7.5	.133
Peanut oil	.95	1.05	7.7	.130
Perilla oil	1/	1/	7.7	.130
Rapeseed oil	1/	1/	7.7	.130
Safflower oil	1/	1/	7.7	.130
Sesame seed oil	1/	1/	7.7	.130
Soybean oil	.96	1.04	7.7	.130
Sunflower seed oil	1/	1/	7.7	.130
Tucum oil	1/	1/	7.5	.133
Tung oil	1/	1/	7.8	.128

1/ Not customarily reported as refined oil.

Additional factors:

A tank car usually contains about 60,000 pounds or 8,000 gallons of oil.

A standard size oil-drum contains 55 gallons of oil.

Table 27.--Miscellaneous factors for peanuts and peanut products

For obtaining--	Factors
Peanuts, unshelled: 1/	
Cleaned unshelled stock from farmers' stock 2/	0.95
Equivalent farmers' stock from cleaned unshelled stock	1.05
Peanuts, shelled: 1/	
Equivalent farmers' stock from total shelled peanuts	1.41
Total shelled peanuts from farmers' stock	.71
Shelled oil-stock peanuts from farmers' stock (oil stock pickouts)	.055
Shelled edible peanuts from farmers' stock	.655
Equivalent farmers' stock from shelled edible peanuts 3/	1.53
Peanut butter:	
Peanut butter from farmers' stock peanuts	.622
Equivalent farmers' stock peanuts from peanut butter	1.61
Peanut butter from shelled edible peanuts 4/	.95
Equivalent shelled edible peanuts from peanut butter	1.05
Pounds of peanut butter from short tons of farmers' stock	1,244
Equilavent short tons of farmers' stock from pounds of peanut butter	.00080
Oil, oilcake, and meal: 1/	
Yield per short ton of farmers' stock: 5/	
Pounds of crude peanut oil	574
Pounds of peanut cake or meal	853
Estimated product outturn per short ton of shelled peanuts crushed:	
Pounds of crude peanut oil	806
Pounds of peanut cake and meal 6/	1,197

1/ Based on 1958-1962 crop averages.
2/ Farmers' stock peanuts are uncleaned, unshelled peanuts, as they are harvested.
3/ Includes shelled oil stock peanuts.
4/ Including additives.
5/ Yields from farmers' stock are provided for statistical convenience. In actual practice, only the shelled peanuts are crushed for oil. Some of the shells are then added to the residue to produce the cake and meal.
6/ Some additional shells are added to the residue to produce cake and meal.

SOYBEAN PRODUCTS

Table 28.--Factors relating to yields of specified soybean products

Product	Factors for obtaining--				
	Pounds of product from pound of soybeans	Equivalent pounds of soybeans from pound of product	Pounds of product from bushel of soybeans	Equivalent bushels of soybeans from pound of product	Pounds of product from short ton of soybeans
Soybean oil, crude 1/	.182	5.49	10.92	.092	364
Soybean oil, refined 1/	.175	5.70	10.52	.095	350
Soybean cake or meal 1/	.786	1.27	47.14	.0212	1,572
Flour, flakes or grits					
Full fat	.833	1.20	50.0	.02	1,666
Low fat	.592	1.69	35.5	.028	1,184
Defatted (industrial)	.558	1.79	33.5	.03	1,116

1/ 1959-63 crop-year average.

FLAXSEED PRODUCTS

Table 29.--Factors relating to yields of specified products

Product	Factors for obtaining--				
	Pounds of product from pound of flaxseed	Equivalent pounds of flaxseed from pound of product	Pounds of product from bushel of flaxseed	Equivalent bushels of flaxseed from pound of product	Pounds of product from short ton of flaxseed
Linseed oil, crude 1/	.361	2.77	20.2	.0495	722
Linseed oil, refined	.334	2.99	18.7	.0535	668
Linseed cake or meal 1/	.664	1.51	37.2	.0270	1,328

1/ 1959-63 crop-year average.

Table 30.--Yields of oil cake and meal from various oil-bearing materials

Type of cake or meal	Factors for obtaining pounds of cake or meal		
	From pounds of oil-bearing material	From bushels of oil-bearing material 1/	From short tons of oil-bearing material
Animal feeds:			
Copra	0.352	---	704
Cottonseed	.465	---	930
Flexseed (linseed) 2/	.664	37.2	1,328
Peanuts (farmers' stock)	.4266	---	853
Soybeans	.786	47.1	1,572
Not used for animal feeds:			
Castor beans	.50	23.0	1,000

1/ Based on bushel weights as follows:

Flaxseed	56 pounds
Soybeans	60 pounds
Castor beans	46 pounds

2/ Includes some material from screenings.

Table 31.--Factors relating to dry edible beans and products 1/

Product	Factors for obtaining--	
	Dry beans from product	Product from dry beans
All dry beans 2/	1.0	1.0
Canned baked beans	.31	3.23
Canned lima beans	.389	2.57
Canned navy beans	.317	3.15
Canned kidney beans	.376	2.66
Canned dry beans, unspecified	.361	2.77
Canned bean soup	.192	5.21
Canned soup, unspecified 3/	.0192	52.1
Canned meat and beans	.167	5.99
Canned meat and vegetable stew	.08	12.50
Dehydrated baked beans	1.13	.885
Dehydrated bean soup	1.10	.909
Dehydrated vegetable stew mix	.17	5.88
Dried bean flour	1.25	.80

1/ Based on raw bean moisture content of 17%.
2/ Including blackeye (or dry blackeyed peas), pinto, chick peas (or garbanzos), lima (large and baby), pea (navy), pink, red kidney, small red (Mexican) and yelloweye.
3/ Estimated to contain 10% bean soup.

Table 32.--Factors relating to dry edible peas and products 1/

Product	Factors for obtaining--	
	Dry peas from product	Product from dry peas
All dry whole peas 2/	1.0	1.0
All dry split peas	1.22	.82
Canned pea soup	.186	5.38
Canned soups, unspecified 3/	.0372	26.9
Soup concentrate Dry soup powder Dehydrated soup, unspecified 4/ Soya mix	.625	1.6
Dehydrated vegetable stew mix	.17	5.88
Dehydrated green pea soup	1.049	.953
Dehydrated yellow pea soup	1.096	.912
Dehydrated pea soup, unspecified	1.072	.933
Dried pea flour	1.25	.8

1/ Based on raw pea moisture content of 14.5%.
2/ Including green and yellow whole peas, Alaskas, etc.; also lentils.
3/ Estimated to contain 20% pea soup.
4/ Estimated to contain 50% pea flour.

Table 33.--Factors relating to whole grain and processed wheat

Commodity	Unit	Factors for converting-- Units of wheat to pounds of commodity	Factors for converting-- Units of commodity to bushels of wheat
Wheat, whole grain	Pound	1.0	0.01667
	Bushel	60.0	1.0
	Short ton	2,000.0	33.33
	Metric ton	2,204.622	36.744
	Long ton	2,240.0	37.33
White flour	Pound	.730	.0228
	100-lb. sack	73.00	2.283
	Bushel	43.80	---
	Short ton	1,460.0	45.66
	Metric ton	1,609.4	50.33
	Long ton	1,635.2	51.14
Semolina or farina 1/	Pound	.730	.0228
	100-lb. sack	73.00	2.283
	Bushel	43.80	---
	Short ton	1,460.0	45.66
	Metric ton	1,609.4	50.33
	Long ton	1,635.2	51.14
Whole wheat flour or cracked wheat	Pound	.980	.01701
	100-lb. sack	98.0	1.700
	Bushel	58.8	---
	Short ton	1,960.0	34.01
	Metric ton	2,160.5	37.49
	Long ton	2,195.2	38.09
Wheat meal or whole wheat meal	Pound	.990	.01684
	100-lb. sack	99.0	1.684
	Bushel	59.4	---
	Short ton	1,980.0	33.67
	Metric ton	2,182.6	37.12
	Long ton	2,217.6	37.71

1/ The 73% extraction rate for semolina and farina comprise approximately 58% semolina or farina and 15% flour.

Table 34.--Factors relating to wheat and white flour content of specified products 1/

Product	Factors for converting--			
	Bushels of wheat to pounds of product	Pounds of product to bushels of wheat	Pounds of white flour to pounds of product	Pounds of product to pounds of white flour
Baked goods: 2/				
Bread:				
Brown bread	109.5	.0091	2.50	.40
Cracked wheat bread, 18% cracked wheat	81.5	.0123	1.86	.54
Hearth bread and hard rolls	66.1	.0150	1.51	.66
Raisin bread	112.6	.0089	2.57	.39
Rye bread, 20% rye flour	76.6	.0130	1.75	.57
White pan bread	69.2	.0144	1.58	.63
Whole wheat bread, 100% whole wheat flour	93.3	.0107	---	---
Cake: medium rich formula				
Angel food cake	261.1	.0039	5.96	.17
Chocolate cake	190.1	.0053	4.34	.23
Fruit cake	446.8	.0023	10.2	.10
Pound cake, yellow and rich	184.0	.0055	4.2	.24
White and yellow cake	171.3	.0059	3.91	.26
Cookies:				
Cookie bars (military)	112.1	.0089	2.56	.39
Cookie sandwich	99.4	.0100	2.27	.44
Fig bars	168.6	.0059	3.85	.26
Wafers, vanilla or butter and other cookies	109.5	.0091	2.50	.40
Crackers:				
Crackers (military)	48.2	.0207	1.10	.91
Soda crackers, saltines, oysterettes	43.8	.0228	1.00	1.00
Graham crackers, 14% whole wheat flour	79.7	.0125	1.82	.55
Pretzels or pilot bread	45.1	.0221	1.03	.97
Doughnuts:				
Doughnuts, cake	106.8	.0093	2.44	.41
Doughnuts, yeast-raised	83.2	.0121	1.9	.53
Rolls, soft	70.1	.0141	1.60	.62
Sweet baked foods, yeast leavened	106.4	.0093	2.43	.41
Flour mixes:				
Bread mix	49.9	.0201	1.14	.88
Cake mix	109.5	.0091	2.50	.40
Doughnut or waffle mix	66.6	.0150	1.52	.66
Pancake mix	97.2	.0101	2.22	.45
Macaroni and noodle products:				
Macaroni or spaghetti	42.0	.0237	3/.96	1.04
Noodles, 5.5% egg or egg yolk solids	44.7	.0222	1.02	.98
Spaghetti, canned	109.5	.0091	2.50	.40

Continued--

Table 34.--Factors relating to wheat and white flour content of specified products 1/--Continued

Product	Factors for converting--			
	Bushels of wheat to pounds of product	Pounds of product to bushels of wheat	Pounds of wheat to pounds of product	Pounds of product to pounds of wheat
Wheat cereals:				
Wheat cereals, ready-to-serve:				
40% bran flakes	29	.0345	.49	2.04
Malted cereal, granules	53	.0190	.88	1.14
Malted wheat flakes	55	.0183	.91	1.10
Puffed wheat	51	.0196	.85	1.18
Shredded wheat 1/	55	.0182	1/.92	1.09
Sugar-coated wheat cereal	103	.0097	1.72	.58
Premixed cereal 4/	240	.0042	4.00	.25
Precooked infant-type cereal	120	.0083	2.00	.50
Wheat flakes	65	.0154	1.08	.93
Wheat cereals, uncooked and quick-cooking:				
Bulgur	52	.0192	.87	1.15
Rolled wheat	56	.0180	.93	1.08
Whole wheat meal	59	.0169	.98	1.02

1/ All factors are based on 60 pounds of wheat per bushel except that for shredded wheat cereal which is based on 54 pounds per bushel.
2/ Baked and finished weight.
3/ About 4% moisture loss below flour's normal moisture content.
4/ Premixed cereal is ready to eat.

Table 35.--Factors relating to corn content of specified products 1/

Product	Factors for converting--			
	Bushels of corn to pounds of product	Pounds of product to bushels of corn	Pounds of corn to pounds of product	Pounds of product to pounds of corn
Corn, shelled 2/	56.0	0.0179	1.00	1.00
Corn cones or maize cones	54.9	.0182	.98	1.02
Corn meal, degermed	31.6	.0316	.564	1.77
Corn meal, nondegermed, regular	50.0	.0200	.893	1.12
Corn flour	33.0	.0303	.589	1.70
Corn grits or hominy grits	29.0	.0345	.518	1.93
Hominy, canned	145.0	.0069	2.589	.39
Hominy, dry	27.3	.0366	.488	2.05
Cornstarch, 10% moisture 3/	34.4	.0291	.614	1.63
Cornstarch, pearl, 12% moisture or laundry starch 3/	35.2	.0284	.629	1.59
Corn sugar:				
Dextrose, hydrate, 8% moisture	30.0	.0333	.536	1.87
Dextrose, anhydrous, moisture free 4/	27.5	.0364	.491	2.04
Corn sirup, 43° Baume, 19.73% moisture, 42% dextrose equivalent 3/	37.6	.0266	.672	1.49
Corn flakes or corn cereal	21.5	.0465	.384	2.60
Corn-soya cereal 5/	33.6	.0297	.60	1.66
Precooked infant-type cereal	500.0	.0020	8.929	.11
Premixed cereal	101.8	.0098	1.818	.55
Pancake mix	330.0	.0030	5.882	.17
Pudding powder, 33% cornstarch	103.8	.0096	1.854	.54
Chocolate pudding powder, 18% cornstarch	186.6	.0054	3.333	.30
Corn oil:				
Refined	1.6	.625	.0286	35.0
Crude	1.8	.556	.0321	31.1
Corn feeds: Gluten feed, gluten meal, and corn oil meal or cake 6/	14.9	.0671	.266	3.76
Hominy feed	20.0	.050	.357	2.80

1/ All factors are based on 56 pounds of shelled corn per bushel.
2/ Five bushels of shelled corn = 1 bbl.; 10 bushels of ear corn = 1 bbl.; 70 lb. of ear corn = 1 bushel of shelled corn.
3/ From 17% moisture corn.
4/ Based on continued reprocessing of uncrystallized dextrose liquors.
5/ Corn-soya cereal contains approximately 34% soya flour.
6/ Conversion factors cover all corn feeds combined. Data are not available to show separate components of corn feeds, though gluten feed is generally about 55-60% of total corn feeds, gluten meal around 40% and corn oil meal only about 2%.

Table 36.--Factors relating to oat content of specified products

Product	Factors for converting--			
	Bushels of oats to pounds of product	Pounds of product to bushels of oats	Pounds of oats to pounds of product	Pounds of product to pounds of oats
32 lb./bu.				
Oats, unprocessed	32.0	0.03125	1.0	1.0
Oat flour	20.3	.04926	.634	1.577
Rolled oats or oatmeal:				
Quick cooking or regular	18.5	.05405	.579	1.730
Ready-to-eat cereal	20.5	.04878	.641	1.560
Precooked infant-type cereal	100.1	.010	3.128	.320
38 lb./bu. 1/				
Oats, unprocessed	38.0	.02632	1.0	1.0
Oat flour	24.1	.04149	.634	1.577
Rolled oats or oatmeal:				
Quick cooking or regular	22.0	.04545	.579	1.730
Ready-to-eat cereal	24.3	.04115	.641	1.560
Precooked infant-type cereal	118.9	.0084	3.128	.320

1/ This bushel weight represents the bulk of the oats processed for human food.

BARLEY AND BARLEY PRODUCTS

Table 37.--Factors relating to barley and malt content of specified products

Product	Factors for converting--				
	Bushels of barley to pounds of product	Pounds of product to bushels of barley	Pounds of barley to pounds of product	Pounds of product to pounds of barley	Pounds of product to pounds of malt
Barley, unprocessed	48.0	0.02083	1.0	1.0	0.708
Barley flour	21.8	.04587	.454	2.203	---
Pearl barley	26.4	.03788	.550	1.818	---
Malt	34.0	.02941	.708	1.412	1.0
Malt sirups and malt extract	27.2	.03676	.567	1.765	1.25
Malted cereal granules	160.0	.00625	3.333	.300	.212

1 bushel barley weighing 48 lb. yields 1 bushel malt weighing 34 pounds.

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Table 38.--Factors relating to rye content of specified products

Product	Factors for converting--			
	Bushels of rye to pounds of product	Pounds of product to bushels of rye	Pounds of rye to pounds of product	Pounds of product to pounds of rye
Rye, unprocessed or rolled	56.0	0.0179	1.0	1.0
Rye flour	44.8	.0223	.80	1.250
Rye bread, 20% rye flour	224.0	.0045	4.00	.250
Pancake mix, 5% rye flour	903.2	.0011	16.13	.062

1 bushel of rye yields 1 bushel rye malt.
1 bushel rye malt weighs 40 pounds.

BUCKWHEAT AND BUCKWHEAT PRODUCTS

Table 39.--Factors relating to buckwheat content of specified products

Product	Factors for converting--			
	Bushels of buckwheat to pounds of product	Pounds of product to bushels of buckwheat	Pounds of buckwheat to pounds of product	Pounds of product to pounds of buckwheat
Buckwheat, unprocessed	48.0	0.0208	1.0	1.0
Buckwheat flour	28.8	.0347	.60	1.67
Buckwheat cereals	22.3	.0448	.46	2.15
Buckwheat pancake mix, 42% buckwheat flour	68.6	.0146	1.43	.70

Table 40.--Factors relating to rice content of specified products 1/

Product	Factors for converting--			
	Cwt. of rough rice to pounds of product	Pounds of product to cwt. of rough rice	Pounds of milled rice to pounds of product	Pounds of product to pounds of milled rice
Rice--Rough	100.0	0.01000	1.5038	0.6650
Brown	82.0	.01220	1.2330	.8110
Milled 2/	66.5	.01504	1.0000	1.0000
Brewers	3.0	.33333	.0451	22.1667
Bran	10.9	.09174	..1639	6.1009
Polish	1.6	.62500	.0241	41.5625
Rice grits	69.5	.01439	1.0451	.9568
Rice flour	64.2	.01558	.9654	..0358
Rice starch	49.1	.02037	.7383	1.3544
Precooked rice	63.9	.01565	.9609	1.0407
Dehydrated precooked rice	60.5	.01653	.9098	1.0992
Rice cereals, ready-to-serve:				
Puffed rice	66.5	.01504	1.0000	1.0000
Rice flakes	61.2	.01634	.9203	1.0866

1/ Rice conversion factors vary substantially depending on the type and variety of rice milled. These data are based on national averages over a period of time and are not a perfect measure of any crop's milling yield.

2/ Excluding brewers' rice.

Note: Miscellaneous factors relating to rice:

1 bushel rough rice equals 45 pounds

1 cwt. rough rice equals:
100 pounds
2.22 bushels

1 barrel rough rice equals:
162 pounds
3.6 bushels

Table 41.--Factors relating to grain sorghum content of specified products

Product	Factors for converting--			
	Cwt. of grain sorghum to pounds of product	Pounds of product to Cwt. of grain sorghum	Pounds of grain sorghum to pounds of product	Pounds of product to pounds of grain sorghum
Grain sorghum, unprocessed	100.0	0.01	1.00	1.00
Grain sorghum starch, 10% moisture 1/	61.7	0.0162	0.617	1.62
Grain sorghum starch, pearl or laundry starch, 12% moisture 1/	63.1	0.0158	0.631	1.58
Dextrose, crystalline 2/	54.4	0.0184	0.544	1.84
Grain sorghum feeds, gluten feed, gluten meal, and grain sorghum oil meal or cake, 12% moisture	35.0	0.0286	0.35	2.86

1/ Starch calculated at 89.5% recovery.
2/ Assumes complete conversion of starch to dextrose.

SUGAR, BEET AND CANE

Table 42.--Factors relating to raw sugar content of specified sugar products

Product	Unit	Sugar, raw value, from specified units of product 1/	
		Pounds	Short tons
Sugar, granulated and confectioners	Pound	1.07	0.000535
	100-lb. bag	107.00	.0535
	Long ton	2,396.80	1.1984
Lump sugar	Pound	1.07	.000535
Brown sugar	Pound	.963	.000482
Powdered sugar 2/	Pound	1.038	.000519
Invert sugar	Pound	.856	.000428
Invert sirup:			
Medium invert	Pound	.79	.000395
High invert	Pound	.74	.000370
Sucrose sirup	Pound	.69	.000345

1/ Raw value of any quantity of sugars is equivalent to raw sugar testing 96° by the polariscope as defined in the Sugar Act of 1948, as amended.
2/ Powdered sugar on the average contains 3 percent corn starch.

Many products contain not only beet or cane sugar but also other sweeteners, such as corn sirup, dextrose (corn sugar), honey, or molasses. The conversion factors herein refer to typical beet or cane sugar content. In view of substitutability, products may contain a smaller or larger proportion of beet or cane sugar than those indicated. Other sweeteners are particularly important in the manufacture of candy. Beet and cane sugar represent only two-thirds of all sweeteners used by the confectionery industry in recent years. For further reference see Competitive Relationships Between Sugar and Corn Sweeteners, by Phillip E. Jones and F. G. Thomason, U.S. Department of Agriculture, June 1951. The relationships shown in that study are still applicable.

Table 43.--Factors relating to beet and cane sugar content of specified products

Product	Unit	Factors for obtaining equivalent--	
		Pounds refined from units of product	Short tons raw value from units of product 1/
Confections: 2/			
Candy:			
Uncoated candies:			
Caramels	Pound	0.30	0.000160
Creams, candy corn, crystallized creams, etc	Pound	.70	.000375
Grained mint types, so-called pure sugar	Pound	.95	.000508
Fudges	Pound	.55	.000294
Hard candies such as fruit drops, Christmas candies, etc	Pound	.60	.000321
Jellies, soft, sugar sanded	Pound	.45	.000241
Jellies, Jube jel	Pound	.35	.000187
Lozenges, sugar wafers and pressed tablets	Pound	.90	.000482
Marshmallows	Pound	.50	.000268
Marshmallows, grain, circus peanuts, etc	Pound	.70	.000375
Nougats	Pound	.40	.000214
Taffy, English type	Pound	.30	.000160
Taffy, wrapped	Pound	.35	.000187
Sugar-panned candies:			
Jelly beans and related products	Pound	.60	.000321
Panned caramels	Pound	.60	.000321
Panned chocolate centers	Pound	.65	.000348
Panned creams	Pound	.70	.000375
Panned fudges	Pound	.75	.000401
Panned hard candies such as cinnamon drops	Pound	.70	.000375
Panned marshmallows	Pound	.80	.000428
Panned peanut and nut meats	Pound	.50	.000268

--Continued

See footnotes at end of table.

Table 43.--Factors relating to beet and cane sugar content of specified products--Continued

Product	Unit	Factors for obtaining equivalent--	
		Pounds refined from units of product	Short tons raw value from units of product 1/
Confections--Continued:			
Candy--Continued:			
Chocolate coated candies:			
Brittles, nut or peanut	Pound	.60	.000321
Caramels	Pound	.40	.000214
Creams assorted	Pound	.60	.000321
Fruits such as cordial cherries	Pound	.60	.000321
Fudges	Pound	.52	.000278
Jellies	Pound	.45	.000241
Marshmallows	Pound	.55	.000294
Nougats	Pound	.45	.000241
Peanuts and nut meats	Pound	.40	.000214
Bars, uncoated:			
Nougats, taffy, caramels, jelly, etc	Pound	.40	.000214
Peanut brittle	Pound	.30	.000160
Solid chocolate, stars, etc.:			
Bittersweet chocolate	Pound	.40	.000214
Milk chocolate	Pound	.55	.000294
Sweet chocolate	Pound	.50	.000268
Sweetened, enriched military	Pound	.50	.000268
Coated bars--chocolate or confectioners coatings:			
Caramel-nougat	Pound	.45	.000241
Coconut	Pound	.40	.000214
Creamed	Pound	.65	.000348
Fudge	Pound	.52	.000278
Marshmallows	Pound	.52	.000278
Nougats	Pound	.48	.000257
Peanut brittle	Pound	.50	.000268
Peanut or nut roll bar	Pound	.35	.000187
Novelty chocolate bars:			
Almond chocolate	Pound	.40	.000214
Cereal chocolate	Pound	.40	.000214
Peanut chocolate	Pound	.40	.000214
Miscellaneous candy:			
Chocolate	Pound	.38	.000203
Nonchocolate	Pound	.52	.000278
Unspecified	Pound	.45	.000241
Chewing gum	Pound	.56	.000300

--Continued

See footnotes at end of table.

Table 43.--Factors relating to beet and cane sugar content of specified products--Continued

Product	Unit	Factors for obtaining equivalent--	
		Pounds refined from units of product	Short tons raw value from units of product 1/
Chocolate, sweetened cooking	Pound	.50	.000268
Cocoa, beverage powder (military)	Pound	.52	.000278
Fruit peel, candied	Pound	.80	.000428
Popcorn, candied	Pound	.60	.000321
Soft drinks:			
Cola, clear fruit or other soft drink sirups	Pound	.55	.000294
	Gal. (10.5 lb.)	5.80	.003100
Cola, soft types drinks bottled	Pound	.10	.000054
	Gal. (8.65 lb.)	.866	.000463
	24/7 oz. bottles	1.14	.000610
	24/12 oz. bottles	1.95	.001043
Fruit flavored soft drinks	Pound	.12	.000064
	Gal. (8.7 lb.)	1.05	.000562
	24/7 oz. bottles	1.37	.000733
	24/12 oz. bottles	2.36	.001263
Gingerale, bottled	Pound	.084	.000045
	Gal. (8.6 lb.)	.722	.000386
	24/12 oz. bottles	1.62	.000867
Dairy products:			
Condensed milk, sweetened	Pound	.42	.000225
	48/14 oz. cans	17.64	.009437
Condensed skim milk, sweetened	Pound	.40	.000214
Ice cream	Pound	.15	.000080
	Gal. (4.5 lb.)	.72	.000385
Ice cream mix:			
Paste	Pound	.36	.000193
Powder	Pound	.40	.000214
Sherbet	Pound	.28	.000150
Water ice	Pound	.29	.000155

1/ Raw value of any quantity of sugars is equivalent to raw sugar testing 96° by the polariscope as defined in the Sugar Act of 1948, as amended.

2/ The sugar content of confections may vary as much as 10%, plus or minus, from the indicated figures.

Table 44.--Net weights, sugar solids content, and total solids content per unit of specified products (at 20° C.)

Product	Unit 1/	Net weight per unit	Total sugar solids content 2/	Total solids content
		Pounds	Pounds	Pounds
Corn sirup, regular 42° Baume ..	Pound	1.00	0.78	0.783
	No. 10 can	8.88	6.92	6.95
	Gallon	11.68	9.11	9.15
Corn sugar or dextrose (hydrate).....	Pound	1.00	.92	.92
Honey.....	Pound	1.00	.78	.83
	Gallon	11.84	9.24	9.83
Maple sirup.....	Pound	1.00	.64	.66
	Gallon	11.03	7.06	7.28
Maple sirup, imitation:				
Thin type.....	Pound	1.00	.66	.66
	Gallon	11.03	7.28	7.28
Thick type.....	Pound	1.00	.73	.73
	Gallon	11.39	8.31	8.31
Maple sugar.....	Pound	1.00	.87	.90
Molasses, edible, first centrifugal: 3/				
U. S. Grade A.....	Pound	1.00	.635	.79
	No. 10 can	8.91	5.66	7.04
	Gallon	11.72	7.44	9.26
U. S. Grade B.....	Pound	1.00	.615	.79
	No. 10 can	8.91	5.48	7.04
	Gallon	11.72	7.21	9.26
U. S. Grade C.....	Pound	1.00	.58	.79
	No. 10 can	8.91	5.17	7.04
	Gallon	11.72	5.80	9.26
Molasses, inedible blackstrap 4/ 5/.....	Pound	1.00	.50	.795
	Gallon	11.74	5.87	9.33
	Tank car	93,920	46,960	74,666
Refiner's sirup: 6/				
U. S. Grade A.....	Pound	1.00	.6624	.72
	Gallon	11.34	7.51	8.16
U. S. Grade B.....	Pound	1.00	.6192	.72
	Gallon	11.34	7.02	8.16

Continued --

Table 44.--Net weights, sugar solids content, and total solids content per unit of specified products (at 20° C.)--Continued

Product	Unit 1/	Net weight per unit	Total sugar solids content 2/	Total solids content
		Pounds	Pounds	Pounds
Refiner's sirup: 6/--Continued				
U. S. Grade C	Pound	1.00	0.5928	0.76
	Gallon	11.55	6.85	8.78
U. S. Grade D	Pound	1.00	.5320	.76
	Gallon	11.55	6.14	8.78
Sugar cane sirup:				
U. S. Grade B, unsulfured	Pound	1.00	.68	.74
	No. 10 can	8.70	5.92	6.44
	Gallon	11.45	7.79	8.47
U. S. Grade B, sulfured	Pound	1.00	.65	.74
	No. 10 can	8.70	5.66	6.44
	Gallon	11.45	7.44	8.47
Sorgo sirup	Pound	1.00	.68	.76
	No. 10 can	8.78	5.97	6.67
	Gallon	11.55	7.85	8.78

1/ The No. 10 can is estimated to contain 0.76 gallon, based on internal volume of 189.7 cu. in. and 93% fill when cold.

2/ Total sugar solids refers to all sugars, not only sucrose. The sugar content of all products except corn sirup and honey consists of one or more of the following sugars: dextrose, levulose (monosaccharides) and sucrose (a disaccharide). Corn sirup, regular, 42° Baume contains 34% of mono, di, and tri saccharides, which types of sugars are generally associated with sweetness. These types include dextrose and maltose (a disaccharide). In addition corn sirup contains 44% higher sugars (polymers of dextrose) which have little or no sweetness. The sugar content of honey averages 38% levulose, 31% dextrose, 7% maltose, 1.5% sucrose and 1.5% higher sugars.

3/ U.S. Grade A is based on a minimum total sugar content of 63.5% and minimum density of 79° Brix.

U.S. Grade B is based on a minimum total sugar content of 61.5% and minimum density of 79° Brix.

U.S. Grade C is based on a minimum total sugar content of 58.0% and minimum density of 79° Brix.

4/ Based on average total sugar content of 50% and minimum density of 79.5° Brix.

5/ 1 gallon of ethanol made from 2.40 gallons of inedible blackstrap molasses.

6/ U.S. Grade A is based on a Brix solids content of not less than 72% and a ratio of total sugars to Brix solids of not less than 92%.

U.S. Grade B is based on a Brix solids content of not less than 72% and a ratio of total sugars to Brix solids of not less than 86%.

U.S. Grade C is based on a Brix solids content of not less than 76% and a ratio of total sugars to Brix solids of not less than 78%.

U.S. Grade D is based on a Brix solids content of not less than 76% and a ratio of total sugars to Brix solids of not less than 70%.

In processing, cocoa beans are roasted and hulled with a resultant loss in weight of 20%. The 80% remaining is chocolate liquor, sometimes called ground or bitter chocolate. About 53% of the liquor is composed of cocoa butter or fat and 47% is composed of a nonfat powder residual. Since it is impossible to completely separate the butter from the nonfat powder residual, the manufacturer will leave a minimum of fat in the powder--usually about 12%, but if breakfast cocoa is desired, about 22% is left.

Table 45.--Factors relating to cocoa bean content of specified products

Product	Unit	Equivalent pounds of cocoa beans per unit of product	Remarks
Chocolate, unsweetened, commercial, or pure chocolate liquor	Pound	1.25	
Chocolate, sweetened, commercial	Pound	.73	Factor to be used for most types, which usually contain 30% chocolate liquor; and 14% cocoa butter. 1/
Cocoa powder, unsweetened	Pound	1.18	12% cocoa fat. 2/
Cocoa, breakfast	Pound	1.04	22% cocoa fat. 2/
Cocoa beverage powder (military)	Pound	.39	18% cocoa (18% fat). Cocoa beverage component for military rations; also may be used for instant, sweetened or soluble cocoa.
Cocoa beverage powder, malted type, commercial	Pound	.31	
Cocoa butter	Pound	1.33	Beans pressed to 12% residual fat. 2/
Chocolate sirup for topping	Pound Gallon (11 lb.)	.24 2.64	Chocolate liquor 13.5%; cocoa butter 2.5%
Chocolate sirup for beverages	Pound Gallon (10.27 lb.)	.26 2.67	Cocoa 11%.
Chocolate flavored milk, chocolate flavored drink	Pound Gallon (9 lb.)	.02 .20	Cocoa 1.0%.
Chocolate ice cream	Pound Gallon (4.5 lb.)	.06 .28	Cocoa 2.5%.
Candy: Chocolate bars or discs, sweet, solid, enriched, high melt (military)	Pound	.21	Chocolate liquor 17%.

Continued--

Table 45.--Factors relating to cocoa bean content of specified products--Continued

Product	Unit	Equivalent pounds of cocoa beans per unit of product	Remarks
Candy - Continued:			
Chocolate fudge bars (military)	Pound	.12	Chocolate liquor 6%; cocoa 1.8%.
Chocolate-coated bars, commercial	Pound	.20	
Chocolate drops, candy-coated or pan-coated chocolates	Pound	.50	Chocolate liquor 40%.
Chocolate bars or chocolate candy, unspecified	Pound	.67	An average figure for use when no detailed specifications are given.
Candy, miscellaneous, or unspecified	Pound	.28	Based on assumption that slightly less than half of such candy is, or contains, chocolate. Used when type of candy is not specified.
Chocolate pudding, or chocolate dessert powder	Pound	.31	Breakfast cocoa 15%.
Chocolate cake mix	Pound	.14	Breakfast cocoa 7%.
Cookies, oatmeal, chocolate chip (military)	Pound	.13	Chocolate liquor 5.6%; cocoa butter 2.2%.

1/ If the proportions of chocolate liquor and cocoa butter are known and are different from those shown for this item, calculate factor with following formula:

$$\text{Pounds of beans per unit of product} = \frac{1.25\ (x + 2.15y)}{100}$$

x = percent of liquor
y = percent of butter

2/ In the case of cocoa butter and cocoa powder, approximately twice the amount of beans implied by these conversions are needed to produce a given amount of product. The factors have been adjusted to exclude the proportionate volume resulting in production of residual products.

Table 46.--Cans commonly used in canning fruits, vegetables, juices: Container dimensions, capacities, and conversion factors

Industry designation	Dimensions 1/	Total capacity avoir. ozs. of water at 68° F.	No. 303 equivalent	No. 2 equivalent	No. 2½ equivalent
6Z	202x308	6.08	.360	.295	.204
8Z Short	211x300	7.93	.470	.386	.266
8Z Tall	211x304	8.68	.514	.422	.291
No. 1 Flat	307x203	8.89	.527	.433	.298
No. 1 Picnic	211x400	10.94	.648	.532	.367
No. 211 Cylinder	211x414	13.56	.803	.660	.455
No. 2 Vac. (12Z Vac)	307x306	14.71	.871	.716	.494
No. 300	300x407	15.22	.902	.741	.511
No. 1 Tall	301x411	16.70	.989	.813	.561
No. 303	303x406	16.88	1.000	.821	.567
No. 300 Cylinder	300x509	19.40	1.149	.945	.651
No. 2	307x409	20.55	1.217	1.000	.689
No. 303 Cylinder	303x509	21.86	1.295	1.060	.734
No. 3 Vacuum	404x307	23.9	1.416	1.162	.802
Jumbo	307x510	25.8	1.528	1.254	.866
No. 2 Cylinder	307x512	26.4	1.564	1.284	.886
No. 2½	401x411	29.79	1.765	1.450	1.000
29Z	307x700	32.5	1.925	1.580	1.091
32Z (Quart)	307x710	35.5	2.103	1.729	1.192
No. 3 Cylinder (46 oz.)	404x700	51.7	3.063	2.515	1.735
No. 5 Squat	603x408	68.1	4.034	3.314	2.286
No. 10	603x700	109.43	6.483	5.325	3.673

1/ The first figures in this column represent the diameter of the container and the second figure the height. The first digit in each number represents inches and the second two digits sixteenths of an inch, i.e., 307 is three and seven-sixteenths inches.

Source - National Canners Association

Table 47.--Case conversion factors for canned fruits and vegetables

Container designation	No. containers per case	Factors to multiply by to convert to: 24/303's	24/2's	24/2½'s
6Z	48	0.72	0.59	0.41
8Z Short	72	1.41	1.16	.80
8Z Tall	48	1.03	.84	.58
No. 1 Flat	48	1.05	.87	.60
No. 1 Picnic	48	1.30	1.06	.73
No. 211 Cylinder	24	.80	.66	.46
No. 2 Vac. (12Z Vac.)	24	.87	.72	.49
No. 300	24	.90	.74	.51
No. 1 Tall	24	.99	.81	.56
No. 303	24	1.00	.82	.57
No. 300 Cylinder	24	1.15	.94	.65
No. 2	24	1.22	1.00	.69
No. 3 Vacuum	24	1.42	1.16	.80
No. 2½	24	1.77	1.45	1.00
29Z	12	.96	.79	.55
32Z (Quart)	12	1.05	.86	.60
No. 3 Cylinder	12	1.53	1.26	.87
No. 5 Squat	6	1.01	.83	.57
No. 10	6	1.62	1.33	.92

Source: National Canners Association

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Fresh fruits		
Apples	Bu. basket	40 - 50
	Fiberboard box, tray pack	37 - 48
	Fiberboard box, cell pack	37 - 44
	Fiberboard box, bulk pack	38 - 50
	Film bag 3, 4, 5, 10 lb. (packed 4 to 15 bags to the master container)	36 - 48
Apricots	Lug, Brentwood	24 - 25
	Lug, L.A.	27 - 30
	Lug	12
	Lug	14
	4-basket crate	26
Avocados (Calif.)	Lug	12 - 15
(Fla.)	1-layer flat or ½ bu. wood or fiberboard box	13 - 14
(Fla.)	4/5 bu. fiberboard box or carton	36 - 40
Bananas	Fiberboard folding box	25 - 50, mostly 40
All berries (Calif.)	12 1-pt. tray or carton	11 - 12
All berries (other)	24 qt. crate	36
	24 pt. crate	18
	12 pt. crate	9
	16 qt. crate	24
Cherries	Lug, Calex	18 - 20
	Lug, Campbell	15 - 16
	Lug, wood	12 - 14
	Lug or carton	20
Cranberries	Box or fiberboard carton, ¼ barrel	25
	1-lb. film bag or carton (packed 24 to the master container)	24
Figs (Calif.)	Flat, 2 layer	12 - 15
	9-basket crate	12 - 15
Grapefruit (Fla.)	1 3/5 bu. wirebound box	85
	4/5 bu. wirebound or fiberboard box	42-½
	Film or mesh bags	4 - 5 - 8
	Mesh bags	20

Continued--

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables, Continued--

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Grapefruit (Texas)	1-2/5 bu. wirebound box	80
	7/10 wirebound or fiberboard box	40
	Bags	5 - 8
	Mesh bags	20
Grapefruit (Calif. Desert Valleys and Arizona)	7/10 bu. fiberboard box, carton	32
Grapefruit (Calif. "other" areas)	7/10 bu. fiberboard box, carton	33-½
Grapes, table (Calif.)	Lug	27 - 28
	Lug	24
	Flat	17 - 20
	Chest, sawdust pack	20 - 22
	Chest, sawdust pack	32 - 34
Grapes (Eastern)	8 2-qt. crates	24 - 25
	12-qt. basket	18 - 20
Grapes, juice (Calif.)	Lug	26 - 28
	Lug	36 - 42
Lemons (Calif. & Ariz.)	7/10 bu. fiberboard carton	38
Limes (Calif. & Fla.)	Fiberboard box, carton - 4/5 bu.	40
	Fiberboard box, carton - 2/5 bu.	20
	Fiberboard box, carton - 1/5 bu.	10
	Fiberboard master container	
	12 1-lb. pks.	12
	36 1-lb. pks. or 24 1½-lb.	36
Mangoes (Fla.)	1 layer flat	13
	Box or carton	40
Nectarines (Calif.)	Flat	10
	Standard peach box	20 - 24
	Lug, Sanger	22 - 24
	Lug, L.A.	30
	4-basket crate	30 - 32
Oranges (Fla.)	1-3/5 bu. wirebound box	90
	4/5 bu. wirebound or fiberboard box	45
	Film or mesh bags	4 - 5 - 8
	Mesh bags	20
Oranges (Texas)	1-2/5 bu. wirebound box	85
	7/10 bu. wirebound or fiberboard box	42-½
	Bags	5 - 8
	Mesh bags	20

Continued--

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables, Continued--

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Oranges (Calif. & Ariz.)	7/10 bu. fiberboard carton	37-½
	Bags	2 - 8
Peaches (West)	Lug, L.A., wooden	22 - 28
	Western peach box	16 - 20
	Lug, Sanger	20
	Flat - 1 layer	10
	Wood or fiberboard crate or carton	18 - 22
	4-basket crate	27
Peaches (all other States)	Bu. basket	46 - 52
	1-1/9 bu. crate	50 - 55
	3/4 bu. basket, carton or crate	35 - 42
	½ bu. basket	23 - 28
Pears (West)	Standard wood box or carton	40 - 54
	Lug, L.A. or 2-layer carton	22 - 28
	½ standard box	30
	3/4 bu. basket	38 - 41
Pears, prickly (Calif.)	Lug	20
Persimmons (Calif.)	Lug	20
Plums (Calif. & Idaho)	Fiberboard box carton	25 - 30
Plums (Calif.)	Standard peach box	20 - 24
	Lug, Sanger	24 - 28
	Lug, L.A.	32
	4-basket crate	28 - 34
Prunes (Northwest)	½-bu. basket, carton or lug	28 - 30
	4-basket crate	28 - 30
	Fiberboard carton	20
	Wooden box	15
	Wooden box	12
Pomegranates	Lug, L.A.	28
Tangerines (Fla.)	4/5 bu. wirebound or fiberboard box	47-½
Tangerines (Calif.)	Carton	25
Fresh vegetables		
Anise (Calif.)	W.G.A. crate	75
Anise (Texas)	Wirebound crate	35 - 40
Artichokes (Calif.)	½ box	20 - 26
	Fiberboard box, carton	22

Continued--

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables, Continued--

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Asparagus, all	Pyramid crate	26 - 32
	Pony crate	12
Asparagus (Calif.)	Fiberboard box, carton containing 1-½ lb. consumer pkgs.	31
	3-qt. basket - loose	10
Beans, lima, all	Bu. hamper or basket	28 - 32
Beans, snap, all	Bu. hamper or basket	28 - 32
Beets, bunched	Wirebound crate	45
	½ W.G.A. crate	40 - 45
	Carton containing 18 bunches	15
Beets, topped, all	Open mesh sack	50
Broccoli	Wirebound crate	25
	Pony crate	40 - 42
	½ crate, wirebound	20 - 22
	Crate, 14 film-wrapped bunches	20 - 23
Brussels sprouts	Tray, 12-pt. cups	12 - 14
	Wirebound crate, 24 1-pt. cups	22 - 26
	Fiberboard box, carton	25
	Drums	25
Cabbage, all	Wirebound crate	50
	W.G.A. crate	70 - 100
	Mesh bag	50
	Paper bag	50 - 60
	Carton, fiberboard	44 - 70
Carrots, topped, all	Open mesh bags	50
	Wirebound crate	50
	Wirebound crate	80
	Burlap sack	70 - 85
	4 doz. 1-lb. film bags packed in mesh bag or carton	50
	2 doz. 2-lb. film bags packed in mesh bag or carton	50
	Bushel baskets	50
Carrots, bunched	2/3 crate	45 - 52
	S & W crate, 6 doz.	87

Continued--

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables, Continued--

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Cauliflower, all	Fiberboard box, 1 layer, wrapper leaves removed, film wrapped	16 - 23
	Fiberboard box, 2 layers wrapper leaves removed, film wrapped	23 - 35
	Crate, lettuce	55 - 62
	L.A. crate	50 - 53
	W.G.A. crate	50 - 60
Celery, all	16" nailed or wirebound crate	55 - 70
	½ size carton	30 - 33
	2/3 carrot crate	72 - 75
	Pony crate	40
	Crate, lettuce	72 - 90
	Fiberboard box, 16" packed with 2 doz. film bags	50
	Fiberboard box, 16" packed with 1 doz. film bags	25
Chinese cabbage	1.45 bu. wirebound box	50 - 55
	1-1/8 or 1-1/9 bu. crate or carton	40
Corn, all	Wirebound crate	40 - 60
	Mesh or multi-wall bag	45 - 50
Corn (Texas)	Mesh bag - ½ bu.	22 - 30
Cucumbers, all	Bu. basket, carton, hamper or crate	47 - 55
	Fiberboard carton	20 - 22
	1-1/9 bu. crate	55
	.57 bu. wirebound crate	27
	1/3 bu. fiberboard carton	19
	1/4 bu. fiberboard carton	14
	Lug, L.A.	28 - 32
Eggplant, all	Bu. basket or hamper	30 - 34
	1-1/9 bu. crate	35
Escarole, endive, and chicory	16" wirebound or nailed crate	36
	Bu. basket	25
	1-1/9 bu. wirebound crate	25 - 28
Garlic	Open mesh sack	25
	Open mesh sack	50
	Fiberboard box, carton	30

Continued--

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables, Continued--

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Garlic - Continued	Fiberboard box	25
	Nailed crate	50
	L.A. lug	28 - 30
Greens: Collards, mustard, turnip, and spinach	Bu. basket, hamper, or crate	18 - 25
Lettuce & romaine, all	Fiberboard box, carton	38 - 55
	Wirebound crate	40
	1-1/9 bu. crate	26
Lettuce, hothouse	Basket	5
	Basket	10
Melons, cantaloups	Jumbo crate	80 - 89
	Standard crate	70 - 85
	Fiberboard carton, Eastern flat	15 - 18
	½ size carton	31-½
Melons, honeydew	Honeydew flat or crate	35 - 47
	Jumbo honeydew crate	52
	Standard honeydew crate	48
	Carton	31-½
Onions, dry, all	Open mesh sack	50
	do.	25
	do.	10
	do.	5
	Fiberboard carton	48 - 50
	Film bags, packed in master containers	1-½, 2, 3, 5, 10
Onions, green	Wirebound crate	15 - 20
	Wirebound crate	38
	16" fiberboard carton	25 - 30
	Carton, 4 doz. bunches	15 - 18
	Open lug	10 - 16
	Crate	60 - 65
Okra	Basket, ½ bushel	15
	Bushel basket or hamper	30
Parsley	16" crate	19
	Wirebound crate	26
	Nailed crate	18 - 20
	½ L.A. crate	24

Continued--

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables, Continued--

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Peas, green, unshelled	Bushel hamper or tub	28 - 30
Peppers, green, all	Bu. basket, hamper or crate	28 - 30
	1-1/9 bu. crate	28 - 33
	Fiberboard carton	30 - 34
Potatoes, all	Burlap sack	50 & 100
	Fiberboard carton	50 - 55
	Paper bag, with or without mesh window	5, 10, 15, 20, 25, 50
	2 and 3-lb. film-wrapped cardboard boats packed in master containers	50 - 55
	Mesh or film bag	3, 5, 8, 10, 15, 20, 25
Radishes, topped	12-qt. basket, 30 6-oz. film bags	11-$\frac{1}{4}$
	Cartons, 30 6-oz. film bags	11-$\frac{1}{4}$
	25-lb. film bags	25
Radishes, bunched	Crate, 5 doz. bunches	30 - 40
	Carton, wax-treated, 4-5 doz. bunches	30 - 40
	W.G.A. crate, 8-10 doz. bunches	80 - 90
	W.G.A. crate, packed loose, unlidded, 6 doz. bunches	45 - 55
Rhubarb, field grown	Box	20
Rhubarb, hothouse	Box	15
	Case, 10 5-lb. carton	50
Squash, summer	Bu. basket, hamper or crate	40 - 45
	$\frac{1}{2}$ bu. wirebound crate	21
	Lug, L.A.	24 - 27
Squash, winter	Bu. basket, hamper or crate	50
Sweetpotatoes 2/	Bu. basket, crate or hamper	50
	Fiberboard box carton	36 - 46
	Fiberboard box carton, uncurred	40 - 50
	$\frac{1}{2}$ bu. carton, hamper, or basket	22 - 25
Tomatoes	Lug, L.A.	30 - 34
	8-qt. climax basket	9 - 11
	12-qt. climax basket	18 - 20
	16-qt. climax basket	27
	Wirebound crate	58 - 62

Continued--

Table 48.--Shipping containers most commonly used for fresh fruits and vegetables, Continued--

Commodity	Shipping container	Approximate net weight 1/
		Pounds
Tomatoes - Continued	½ bu. basket or hamper	30
	5/8 bu. hamper	33 - 35
	Wirebound crate	40
	Wooden flat or nailed box	15 - 25
	Fiberboard carton	8, 18, 20, 30, 40, 60
Turnips, bunched	Wirebound crate	42
	½ W.G.A. crate	35 - 40
	W.G.A. crate	70 - 80
Turnips, topped	Open mesh sack	50
	Film sack	25

1/ Actual weights larger and smaller than the range shown may be found. It is suggested that the mid-point of the range be used where a single value is desired.
2/ The usual weight of sweetpotatoes when harvested averages 55 pounds. Weight is lost in curing or drying.

Table 49.--Canned fruits and juices: Net weight of standard cases in pounds per case 1/

Commodity	Grade	24/1's tall	24/303	24/2's	24/2½'s	6/10's
		Pounds	Pounds	Pounds	Pounds	Pounds
Canned fruits:						
Citrus: 2/						
Citrus salad	Standard	24.4	24.6	30.0	43.5	40.0
Grapefruit sections	Standard	24.4	24.6	30.0	43.5	40.0
Noncitrus:						
Apples	Standard	21.8	22.1	26.9	39.0	35.9
	Choice	---	---	---	---	35.6
Apple butter	Standard	27.7	28.0	34.2	49.5	45.5
Apple sauce	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	24.4	24.6	30.0	43.5	40.0
Apricots	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	25.2	25.5	31.0	45.0	41.4
Berries (all)	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	24.4	24.6	30.0	43.5	40.0
Cherries:						
Unpitted	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	25.2	25.5	31.0	45.0	41.4
Pitted	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	24.4	24.6	30.0	43.5	40.0
Cranberry sauce	Standard	26.9	27.2	33.1	48.0	44.2
Figs	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	25.2	25.5	31.0	45.0	41.4
Fruit cocktail	Fancy	25.2	25.5	31.0	45.0	41.4
	Choice	25.2	25.5	31.0	45.0	41.4
Fruit for salad	Fancy	25.2	25.5	31.0	45.0	41.4
	Choice	25.2	25.5	31.0	45.0	41.4
Grapes	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	25.2	25.5	31.0	45.0	41.4
Jams and preserves	Standard	31.1	31.4	38.3	55.5	51.0
Jelly	Standard	31.1	31.4	38.3	55.5	51.0
Olives, drained weight	Standard	15.1	15.3	18.6	27.0	24.8
Peaches	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	24.4	24.6	30.0	43.5	40.0
Pears	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	24.4	24.6	30.0	43.5	40.0
Pineapple, Hawaiian	Standard	25.2	25.5	31.0	45.0	41.4
	Choice	25.2	25.5	31.0	45.0	41.4
Plums	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	25.2	25.5	31.0	45.0	41.4
Prunes, fresh 3/	Standard	24.4	24.6	30.0	43.5	40.0
	Choice	25.2	25.5	31.0	45.0	41.4

Continued--

Table 49.--Net weight of standard cases in pounds per case 1/ - Continued

Commodity	Grade	24/1's tall	12/3 Cyl.	24/2's	24/2½'s	Gallon
			Pounds	Pounds	Pounds	Pounds
Canned juices:						
Citrus:						
Blended citrus	---	---	37.3	29.6	42.9	8.7
Grapefruit	---	---	37.3	29.6	42.9	8.7
Lemon and lime	---	---	36.8	29.2	42.3	8.6
Orange	---	---	37.3	29.6	42.9	8.7
Tangerine	---	---	37.3	29.6	42.9	8.7
Noncitrus:						
Apple	---	---	37.7	29.9	43.4	8.8
Grape	---	---	38.6	30.6	44.4	9.0
Nectars	---	---	37.7	29.9	43.4	8.8
Pineapple	---	---	37.7	29.9	43.4	8.8
Prune	---	---	38.6	30.6	44.4	9.0

1/ Weights are derived from Net Contents Statements for Canned Food Labels - 1949, National Canners Association, as follows: for fruits, from the weight of the No. 2½ can; for juices, from fluid content of the No. 2 can and the gallon weight, at the ratio of 3.4 gallons per case of 24/2's.

2/ Additional weights for citrus fruits: case of 12/3 cylinder 37.8 pounds; case of 24/300's of 22.2 pounds.

3/ For factor on canned dried prunes, see Table 53.

Table 50.--Fruit juices and concentrates: Factors relating to farm and processed weights 1/

Item and specification	Approximate brix	Equivalent farm weight per gallon	Gallons per unit of farm weight		Net weight per gallon
	Degrees	Pounds	Box 2/	Ton	Pounds
Apple:					
Single strength	13	12	---	170	8.7
Frozen 3 to 1 concentrate	45	47	---	43	10.0
Citrus fruits: 3/					
Orange					
Single strength juice	12	16	5.7	126	8.7
Frozen concentrate	42	60	1.5	34	9.9
Grapefruit					
Single strength juice	10	18	4.6	108	8.7
Frozen concentrate	40	76	1.1	26	9.8
Lemon					
Single strength juice	4/	26	2.9	76	---
Non-frozen concentrate	4/	148	0.5	13.5	---
Concentrate for lemonade	4/	18	4.2	110	---
Grape:					
Single strength	16	11	---	175	8.9
Frozen concentrate	50	40	---	50	10.3
Pineapple:					
Single strength	14	15	---	133	8.8
4 to 1 concentrate	61	75	---	27	10.8
3 to 1 concentrate	50	60	---	33	10.3
Prune (from fresh prunes):					
Single strength	31	13	---	155	9.4
One & one-half to 1 concentrate	73	32	---	62	10.9

1/ For additional information on concentration of fruit juices, see Calculations of Volume and Weight Reduction in the Concentration of Fruit Juices, Agricultural Research Service, U.S. Department of Agriculture, ARS 74-7, June 1956.

2/ Oranges, 90 pounds; grapefruit, 85 pounds; lemons, 76 pounds.

3/ Orange and grapefruit products based on Florida yields; lemons on California.

4/ Lemon product yields are based on a standard ton containing 36.5 pounds of anhydrous citric acid.

Table 51.--Factors relating to farm and processed weights of canned fruits

Commodity	Pounds farm weight		Factors for obtaining equivalent--					Cases 24/2½'s from pounds canned
			Pounds canned from pounds farm weight	Cases canned per ton farm weight 1/				
	From pounds canned	From cases 24/2½'s		24/2½'s	24/303's	24/2's	6/10's	
Citrus fruit								
Citrus salad	2.096	91.32	0.477	21.9	38.8	31.8	23.8	.03333
Grapefruit sections	2.020	87.72	0.495	22.8	40.3	33.0	24.8	.03333
Orange sections	2.222	96.62	0.450	20.7	36.6	30.0	22.5	.03333
Other fruit								
Apples	1.873	72.46	0.534	27.6	48.6	39.9	30.0	.02809
Applesauce	1.292	54.35	0.774	36.8	64.5	52.9	40.0	.04167
Apricots	0.717	32.26	1.395	62.0	109.7	89.9	67.6	.02222
Berries:								
Blackberries	0.667	28.09	1.500	71.2	125.0	102.5	77.5	.04167
Blueberries	0.926	38.99	1.080	51.3	90.0	73.8	55.8	.04167
Boysenberries	0.694	29.24	1.440	68.4	120.0	98.4	74.4	.04167
Gooseberries	0.595	25.06	1.680	79.8	140.0	114.8	86.8	.04167
Loganberries	0.654	29.24	1.530	68.4	120.0	98.4	74.4	.03921
Raspberries	0.641	26.99	1.560	74.1	130.0	106.6	80.6	.04167
Strawberries	0.725	30.49	1.380	65.6	115.0	94.3	71.3	.04167
Cherries:								
Red tart-pitted	1.055	45.87	0.948	43.6	76.8	63.0	47.4	.02500
Sweet-pitted	1.022	44.44	0.979	45.0	79.6	65.2	49.0	.02299
Sweet-unpitted	0.684	30.77	1.462	65.0	115.0	94.2	70.8	.02222
Cranberries	0.388	16.31	2.580	122.6	2/215.0	176.3	133.3	.04167
Figs	0.654	29.41	1.530	68.0	120.4	98.6	74.1	.02222
Fruit cocktail	0.889	40.00	1.125	50.0	88.5	72.5	54.5	.02222
Fruits for salad	0.889	40.00	1.125	50.0	88.5	72.5	54.5	.02222
Olives 3/	0.945	25.51	1.058	78.4	138.6	114.1	85.4	.03704
Peaches:								
Clingstone	0.836	36.36	1.196	55.0	97.4	79.8	60.0	.02299
Freestone	1.022	44.44	0.979	45.0	79.6	65.2	49.0	.02299
Pears	1.000	43.48	1.000	46.0	81.4	66.7	50.1	.02299
Pineapple	1.709	76.92	0.585	26.0	46.0	37.7	28.3	.02222
Plums, fresh	0.663	29.85	1.508	67.0	118.6	97.2	73.0	.02222

1/ Basic figure is 24/2's for citrus; 24/303's for applesauce and berries; 6/10's for apple slices and red tart cherries; 24/300's for cranberries; and 24/2½'s for other products. Case conversion factors based on table 49.

2/ Basis 24/300's.

3/ Drained weight.

NOTE: Relationships between farm and processed weights for most commodities vary widely from season to season and between localities. Factors shown in this table represent average relationships for all producing areas.

Table 52.--Factors relating to farm and processed weights for canned vegetables

Commodity	Pounds farm weight		Factors for obtaining equivalent--				Cases 24/303's from pounds canned
	From pounds canned	From cases of 24/303's	Pounds canned from pounds farm weight	Cases canned per ton farm weight 1/ 24/303's	24/2 1/2's	6/10's	
Asparagus	1.190	28.57	.840	70	39.9	43.4	.04167
Lima Beans 2/	.641	15.38	1.560	130	74.1	80.6	.04167
Snap Beans	.687	16.00	1.456	125	71.2	77.5	.04292
Beets	1.190	28.57	.840	70	39.9	43.4	.04167
Carrots	1.282	30.77	.780	65	37.0	40.3	.04167
Corn:							
Cream style	2.252	54.05	.444	37	21.1	22.9	.04167
Whole grain	2.604	62.50	.384	32	18.2	19.8	.04167
Mushrooms	1.480	34.48	.676	58	33.1	36.0	.04292
Okra	1.034	24.10	.967	83	47.3	51.5	.04292
Peas 2/	.725	17.39	1.380	115	65.6	71.3	.04167
Pimientos	2.452	57.14	.408	35	20.0	21.7	.04292
Potatoes, white	1.111	26.67	.900	75	42.8	46.5	.04167
Pumpkin and squash	2.778	66.67	.360	30	17.1	18.6	.04167
Sauerkraut	1.590	37.04	.629	54	30.8	33.5	.04292
Spinach	.808	18.18	1.238	110	62.7	68.2	.04444
Sweetpotatoes	1.144	26.67	.874	75	42.8	46.5	.04292
Tomatoes	1.561	36.36	.641	55	31.4	34.1	.04292
Tomato catsup 3/	2.469	66.67	.405	30	17.1	18.6	.03704
Tomato juice	1.528	36.36	.654	55	31.4	34.1	.04202
Tomato paste 3/	5.432	142.86	.184	14	8.0	8.7	.03802
Tomato puree 4/	3.333	80.00	.300	25	14.2	15.5	.04167
Pickles	.744	17.86	1.344	112	63.8	69.4	.04167

1/ Basic figure is yield of 24/303's per ton. One case 24/303's is equivalent to 0.57 cases 24/2 1/2's and 0.62 cases 6/10's.
2/ Shelled basis.
3/ 33 percent solids.
4/ 11 percent solids.

NOTE: See table 51.

Table 53.--Relation between farm and processed weights

Commodity	Factors for converting to--		
	Farm weight from natural condition: weight	Farm weight from packed processed: weight	Packed processed weight from natural condition: weight
Apples	8.00	8.00	1.00
Apricots	6.00	5.56	1.08
Dates: 1/			
Whole	1.00	1.00	1.00
Pitted	---	1.14	.875
Figs	3.00	2.94	1.02
Peaches:			
Cling	7.50	6.94	1.08
Freestone:			
Elberta	7.00	6.48	1.08
Other	6.00	5.55	1.08
Pears	6.50	6.31	1.03
Prunes: 2/			
California	2.70	2.60	1.04
Pacific Northwest	3.14	3.05	1.03
Raisins:			
Thompson, sultana 3/	4.30	4.62	.93
Golden seedless	4.30	4.53	.95
Muscat, seeded	4.00	5.00	.80

1/ Includes only farm sales of dates for human consumption after farm cullage. Average farm sales of cull dates directly into non-food channels estimated at 14% of U.S. production.

2/ To convert canned dried prunes to dried prunes, multiply by 0.691085.

3/ Includes unseeded muscats.

Table 54.--Freeze-drying: Relation of freeze-dried product to frozen weight for selected fruits and vegetables 1/

Frozen food before freeze-drying		Weight of freeze-dried products as a percentage of frozen counterpart	Factors used to multiply freeze-dried weight to convert back to frozen weight
Items	Percentage moisture		
	Percent	Percent	
Apples, uncooked, sliced, sweetened	73.3	27.2	3.7
Apricots, non-cooked	85.4	14.9	6.7
Blueberries, non-cooked, unsweetened	85.0	15.3	6.5
Broccoli, cooked or non-cooked	90.6	9.6	10.4
Brussels sprouts, cooked or non-cooked	89.3	10.9	9.2
Cauliflower, cooked or non-cooked	92.9	7.2	13.9
Green peas, cooked	81.7	18.7	5.4
Green peppers, cooked	94.7	5.4	18.5
Mushrooms, non-cooked, whole, pieces or sliced	90.4	9.8	10.2
Pears, non-cooked pieces or slices	82.7	17.6	5.7
Pineapple, non-cooked slices or chunks, sweetened	77.1	23.4	4.3
Plums, Italian, non-cooked slices or pieces	78.7	21.7	4.6
Raspberries, red, non-cooked	74.3	26.2	3.8
Snap beans, cooked	91.6	8.6	11.6
Strawberries, whole, non-cooked	75.5	24.8	4.0

1/ Freeze-dried products contain 2% moisture.

Table 55.--Dehydrofreezing: Relationship between moisture content of product and weight reduction

Percentage original moisture content	Percentage moisture content in product at percentage weight reduction of--			
	50	60	70	80
	Percent	Percent	Percent	Percent
95	90	87.5	83.3	75
90	80	75.0	66.7	50
85	70	62.5	50.0	25
80	60	50.0	33.3	0
75	50	37.5	16.7	
70	40	25.0	0	
65	30	12.5		
60	20	0		
55	10			
50	0			

Table 56.--Dehydrofrozen fruits and vegetables: Relation between prepared material and dehydrofrozen product

Commodity	Pounds of prepared material to produce one pound dehydrofrozen product 1/
	Pounds
Apples	2
Carrots	2
Cherries	2 - 2.5
Green peas	2
Pimientos	3
Potatoes:	
Piece form	2
Mashed	4

1/ After peeling, trimming, and cutting. Preparation losses should be the same as for freezing.

Table 57.--Fruits, Dehydrated (low-moisture): Relation between farm and processed weights

Items	Packaged weight of dehydrated product		Pounds of fresh weight to make one pound of dehydrated product
	No. 10 can	Gallon can	
	Pounds	Pounds	
Apples:			
Wedges	1.5	---	11.0
Slices	1.5	---	
Dice	2.0	---	
Nuggets	2.5	---	
Powder	---	5	
Apricots:			
Slices	3.5	---	7.1
Dice	3.5	---	
Nuggets	3.5	---	
Powder	---	6	
Cherries:			
Sour-pitted	.7	---	7.0
Dates:			
Nuggets	3	---	1.75 1/
Powder	---	6	
Figs:			
Slices	3	---	1.35 1/
Powder	---	6	
Peaches:			
Slices	3	---	7.1
Dice	3	---	
Nuggets	3	---	
Powder	---	6	
Pears:			
Slices	1.5	---	11.0
Prunes:			
Whole pitted	3	---	1.71 1/
Nuggets	3	---	
Powder	---	6	
Strawberries:			
(Freeze-dried)	.7	---	11.0

1/ From commercially dried fruit.

Table 58.--Vegetables, dehydrated: Relations between farm and processed weights and weight of product per 5-gallon container

Commodity	Percentage moisture content: Average for raw material	Percentage moisture content: Product	Average losses from sizing, trimming, peeling, blanching, sorting, and other (percent) 1/	Factors for converting to-- 2/: Processed weight from farm weight	Factors for converting to-- 2/: Equivalent farm weight from processed	Weight of product per 5-gallon container: Product	Weight of product per 5-gallon container: Pounds
Asparagus	93	4	55	.033	30	Dice	8
						Powder	17
Beans, green	89	4	30	.080	12.5	½-inch cut	7
Beets	88	5	33	.085	12	Powder	30
Cabbage	92	4	43	.048	21	Dice	9
						Powder	30
Carrots	88	4	33	.083	12	Dice	18-20
						Powder	35
Celery 3/:							
Stalk and leaf flakes	---	---	20	.050	20	Flakes	3-6
Stalk dice	94	3.5	47	.033	30	Dice	8
Garlic	71	5	15	.260	4	Sliced	15
						Powder	30
Greens	92	4	20-50	.040-.067	15-25	Flakes	8
						Powder	18
Onion	88	4	11	.110	9	Flakes	10-15
						Powder	25
Parsley	84	5	15	.140	7	Flakes	4
						Powder	20
Peas, green	78	4	10	.200	5		18
Peppers:							
Green bell	93	3.5	38	.045	22	Dice	8
						Powder	20
Red bell	91	5.5	45	.053	19	Dice	10
						Powder	25
Potatoes:							
Dice	80	6	40	.125	8.0	---	17
Granules	78	6	33	.14	7.1	---	36
Flakes	80	4.5	33	.14	7.1	---	10
Turnips	91	5	33	.063	16	Dice	14
						Powder	25
Sweet potato flakes	69	3	23.5	.143	7		

Continued--

Table 58--Vegetables, dehydrated: Relations between farm and processed weights and weight of product per 5-gallon container--Continued

Commodity	Percentage moisture content: Average for raw material	Percentage moisture content: Product	Average losses from sizing, trimming, peeling, blanching, sorting, and other (percent) 1/	Factors for converting to-- 2/: Processed weight from farm weight	Factors for converting to-- 2/: Equivalent farm weight from processed	Weight of product per 5-gallon container: Product	Weight of product per 5-gallon container: Pounds
Onions, green	88	4	43	.071	14	Flakes	6
						Minced	8
Tomato flakes	93	4	31	.050	20	Flakes	14
Horseradish	75	5	31	.180	5.5	Powder	20
Leek	88	4	27	.091	11	Powder	22
Okra	90	5	13	.091	11	Powder	22
Pimiento	88	4	70	.036	28	Powder	25
Pumpkin	91	5	13	.083	12	Powder	25

1/ Includes fines and defects removed during final inspection of dried product and other process losses.

2/ Successful dehydration of many of these vegetables depends upon the ability to divert undesirable sizes and/or grades to other kinds of processing. If such outlets are not available, shrinkage ratios will be greater than shown herein.

3/ Celery tops (trimmings) may also be dehydrated.

Table 59.--Frozen fruits and vegetables: Estimated average relation between farm and processed weights

Commodity	Percentage recovery	Factors for converting to: Farm weight from frozen weight 1/	Factors for converting to: Frozen weight from farm weight 1/	Approximate fruit-to-sugar ratio
	Percent			
Frozen fruits:				
Apples	60	1.67	0.60	0 or 7 to 1
Apricots	78	1.10	.91	6 or 8 to 1
Berries:				
Blackberries	95	1.05	.95	0
Blueberries	97	1.03	.97	0
Boysenberries	88	1.14	.88	0
Gooseberries	97	1.03	.97	0
Loganberries	88	1.14	.88	0
Raspberries	95	1.05	.95	0
Strawberries	93	.89	.12	5 or 4 to 1
Cherries, sour	75	1.11	.90	5 to 1
Cherries, sweet	85	1.18	.85	0
Grapes	85	1.18	.85	0
Peaches	67	1.25	.80	5 to 1
Pineapples	50	1.60	.625	4 to 1
Prunes	85	1.18	.85	0
Frozen vegetables:				
Asparagus	52	1.92	.52	2/
Lima beans 3/	95	1.05	.95	2/
Snap beans	85	1.18	.85	2/
Broccoli	75	1.33	.75	2/
Brussels sprouts	75	1.33	.75	2/
Cauliflower	70	1.43	.70	2/
Corn, cut	27	3.70	.27	2/
Carrots	55	1.82	.55	2/
Okra	85	1.18	.85	2/
Peas, green 3/	92	1.09	.92	2/
Peas, southern	50	2.00	.50	2/
Potatoes, white	40	2.50	.40	2/
Peppers, sweet	70	1.43	.70	2/
Spinach	70	1.43	.70	2/
Other greens	75	1.33	.75	2/
Squash	55	1.82	.55	2/
Sweetpotatoes	50	2.00	.50	2/

1/ Frozen weight is weight of frozen fruit plus sugar content. Where more than one fruit-to-sugar ratio is shown, the first is used in this computation.

2/ Fruit-to-sugar ratio does not apply to vegetables.

3/ Shelled.

Table 60.--Fruit and vegetable juice powders: Factors relating to farm and processed weights

Items	Approximate percentage solids content of juice	Yield of juice as a percentage of raw material	Factors for converting to--	
			Processed weight from farm weight	Equivalent farm weight from processed weight
	Percent	Percent		
Apple	14	75	0.107	9
Citrus:				
Grapefruit	11	49	.055	18
Lemon	9	40	.037	27
Orange	13	55	.072	14
Grape	17	75	.130	8
Pineapple 1/	15	58	.089	11
Prune	32	74	.250	4
Tomato	6-$\frac{1}{4}$	70	.044	23

1/ Assuming juice is only product. In practice, however, juice is made only from edible grade peels, cores, trimmings, and sortouts.

Table 61.--Potatoes: Estimated conversion factors for selected potato products

Products	Pounds, farm weight	Pounds of finished product	Percent recovery	To obtain farm weight equivalent, multiply product weight by --
	Pounds	Pounds	Percent	Number
Starch				
Maine	100	9.3	9.3	10.75
Idaho	100	12.5	12.5	8.0
Average	100	11.1	11.1	9.0
Frozen	100	40	40	2.5
Chips	100	1/24.5	1/24.5	4.08

1/ From potatoes with 1.075 specific gravity.

Note: In commercial potato peeling plants, preparation loss including waste and shrinkage ranged from 5 to 48%, averaging approximately 25%.

Source: Marketing Research Report No. 105, issued October, 1955.

HOPS

Table 62.--Hop content of beer

Size of container	Factor for converting to hop content (cured weight)
	Pounds
Barrel (31 gallons)	0.31

Table 63.--Tree nuts: Relation between shelled and in-shell, and between farm and retail weights

Commodity	Factors for converting to--			
	Shelled weight from in-shell weight	In-shell equivalent from shelled weight	Retail weight from orchard-run 1/	Orchard run equivalent from retail weight 1/
Almonds:				
Domestic	0.52	1.92	0.95	1.05
Imported	.30	3.33	---	---
Brazil nuts	.50	2.00	---	---
Cashews	.22	4.55	---	---
Chestnuts	.84	1.19	---	---
Filberts:				
Domestic	.40	2.50	.95	1.05
Imported	.45	2.22	---	---
Macadamias (Hawaii)	.30	3.33	---	---
Pecans:				
Improved	.40	2.50	.91	1.10
Seedling	.36	2.78	.91	1.10
Walnuts, English:				
Domestic 2/	.37	2.67	.87	1.15
Imported	.35	2.86	---	---
Walnuts, black	.17	5.88	---	---

1/ Orchard-run weight before culling. Both orchard-run and retail weight are in-shell basis.

2/ Average for portion of crop shelled commercially. Equivalent shelled-in-shell ratio for graded walnuts sold in-shell is 0.45, and average for entire U.S. walnut crop is 0.41.

Table 64.--Factors for obtaining equivalents of green coffee beans and leaf tea from specified products

Product	Description	Factors
Coffee, green, bag 1/	Standard bag of 60 kilograms, number of pounds	132.276
Coffee, parchment	The green coffee bean contained in the parchment skin	.80
Coffee, roasted	Green coffee roasted to any degree and includes ground coffee	1.19
Coffee, soluble, pure (instant)	The water-soluble solids derived from roasted coffee	3.00
Coffee, decaffeinated	Green, roasted or soluble coffee from which caffein has been extracted:	
	Green	1.00
	Roasted	1.19
	Soluble (instant)	3.00
Tea, soluble (instant)	3 pounds of leaf tea yields 1 pound of soluble tea	3.00

1/ All coffee in the naked bean form before roasting.

YEAST

Table 65.--Relation between yeast solids of specified types of yeast and yeast products

Product	Factors for converting to --	
	Compressed yeast	Dry active yeast
Compressed yeast	1.00	0.305
Dry active yeast 1/	3.17	1.00

1/ The functional relation between dry and compressed yeast differs from the weight relation. It requires about 40-45% of the weight of compressed yeast to give an equivalent activity of dried yeast. These factors are based upon the following average moisture levels: Compressed yeast, 70.5%; dry active yeast, 8.0%; nutritional yeast, 4.5%.

Table 66.--Conversion factors for adjusting for losses in weight incident to stemming, handling, sweating, and drying all types of tobacco 1/

Type	U.S. type no.	Factors to multiply by to convert -- Farm sales weight to: Stemmed	Farm sales weight to: Unstemmed	Unstemmed weight to: Stemmed	Unstemmed weight to: Farm sales weight	Stemmed weight to: Unstemmed	Stemmed weight to: Farm sales weight
Auction market types							
Flue-cured	11-14	0.682	0.893	0.764	1.12	1.309	1.466
Va. fire-cured	21	.620	.813	.763	1.23	1.311	1.613
Ky. & Tenn. fire-cured	22-23	.680	.900	.756	1.11	1.324	1.471
Burley	31	.664	.893	.743	1.12	1.345	1.506
Southern Maryland	32	.702	.950	.739	1.05	1.353	1.424
One Sucker	35	.637	.900	.708	1.11	1.413	1.570
Green River	36	.637	.885	.720	1.13	1.389	1.570
Va. sun-cured	37	.650	.862	.754	1.16	1.326	1.538
Cigar types							
Pa. Seedleaf	41	0.540	0.840	0.643	1.19	1.556	1.852
Ohio filler	42-44	.530	.840	.631	1.19	1.585	1.887
Puerto Rican	46	.590	.862	.684	1.16	1.461	1.695
Conn. Broadleaf	51	.550	.850	.647	1.18	1.545	1.818
Conn. Havana Seed	52	.540	.850	.635	1.18	1.574	1.852
Southern Wisconsin	54	.530	.820	.646	1.22	1.547	1.887
Northern Wisconsin	55	.530	.820	.646	1.22	1.547	1.887
Conn. shade-grown	61	.705	.880	.803	1.14	1.245	1.419
Ga. & Fla. shade-grown	62	.710	.880	.810	1.14	1.235	1.408
Southern types	11-37	.550	.880	.625	1.14	1.600	1.818
Foreign-grown types							
Foreign-grown cigar	81-88	.616	.862	.714	1.16	1.400	1.624
Foreign-grown cigarette	90	.682	.909	.750	1.10	1.333	1.466

1/ Information in this table is based on surveys of the tobacco industry in 1955 and 1960 and modified as necessary by recent information from the industry.

Weights, measures, conversion factors

CRUDE PINE GUM: 1 gum naval stores "crop" produces on an average about 215 standard barrels (435 lb. net each) crude pine gum and represents 10,000 "faces" (usually 1 "face" per tree in U.S.).

1 standard barrel of gum yields on the average, about 9.8 gallons gum turpentine and 299 pounds rosin.

ROSIN:	Drum	Net weight, gum rosin	517 lb. 1/
		Net weight, other types	500-520 lb. (avg. 515 lb.)
		Gross weight, gum rosin	534 lb.
		Volume	8.27 cu. ft.
		Shipping space	9.4 cu. ft.
	Bag	Net weight	100 lb.
TURPENTINE:	Barrel	Liquid measure at 70° F.	50 gal.
	Gallon	Cubic measure at 70° F.	231 cu. in.
	Drum	Net weight	396 lb.
		Gross weight	450 lb.
		Liquid measure at 70° F.	55 gal.

Tank car usually contains about 4,000, 6,000 or 8,000 gallons, mostly 6,000 or 8,000 gallons.

Tank truck usually contains about 4,000 gallons.

1/ Statistical data published by the USDA are in terms of 520 pound drums.

Table 67.--Technical data on rosin (gum, steam distilled wood, and tall oil rosins)

	Gum rosin	Pale wood rosin	FF wood rosin	Tall oil rosin
U.S.D.A. color grade range	H-X	I-X	FF	M-X
Softening point (ASTM, Ring & Ball), degrees C.	70-85	70-85	67-81	70-88
Acid number	160-172	161-170	150-158	158-175
Saponification number	168-180	167-176	162-170	163-180
Unsaponifiable (percent by weight)	5.5-10.0	6.0-10.0	8.5-14.0	3.0-8.0
Specific gravity at 25° C (77° F)	1.06-1.09			
Weight per U.S. Gallon at 25° C	8.8-9.0			

Table 68.--Technical data on spirits of turpentine (Gum spirits, steam distilled wood, and sulfate wood turpentines)

Item	Type of turpentine			
	Gum spirits	Steam distilled wood	Sulfate wood	
			Refined	Crude
Specific gravity at 15.5°/15.5°C:				
Typical for fresh turpentine	0.868	0.862	0.867	---
Specification range (U.S. standard)	0.860-0.875	0.860-0.875	0.860-0.875	---
Specific gravity change per degree F	.00045	.00045	.00045	---
Specific gravity change per degree C	.00082	.00082	.00082	---
Average weight (pounds) per U.S. standard gallon at 70°F:	7.2	7.14	7.2	---
Coefficient of expansion: Per degree F	.000525	.000525	.000525	---
Per degree C	.000945	.000945	.000945	---
Refractive index at 20°C:				
Typical index	1.470	1.466	1.468	---
Specification range (U.S. standard)	1.465-1.478	1.465-1.478	1.465-1.478	---
Refractive index change per degree C	.00045	.00045	.00045	---
Distillation range (U.S. standard):				
Initial distillation temperature - degrees C	150-160	150-160	150-160	---
Distilling below 170°C, minimum percent	90	90	90	---
Flash point range: (Tag closed cup) - degrees F	90-95	90-95	90-95	---
(Cleveland open cup) - degrees F	100-110	100-110	100-110	---
Aniline point: Typical range - degrees C	14-25	18-25	14-25	---
Composition of American turpentines: - (percent)				
Alpha-pinene	60-65	75-80	60-65	50-65
Beta-pinene	25-35	0-2	25-30	20-30
Dipentene and other monocyclic terpenes	5-8	15-20	5-7	16-18
Camphene	---	4-8	0-2	0-2
Total	100	100	100	100

Computation and use of factors

Basis of computation. Factors have been computed on the basis of the 5 crop seasons from 1958-59 through 1962-63 and represent ratios of the 5-season averages. The 5-season average was used to bring the factors more nearly into conformity with current experience, and 1962-63 was used as the most recent year in the averages to avoid including certain figures which would be subject to revision for the 1963-64 season.

Use of factors. Users of these factors are cautioned with respect to the following limitations: The factors are not "official," even though they are based upon latest available official figures. Nor are they permanently fixed at the stated values because later information and shifts in relationships may necessitate revisions. Since basic data underlying certain series have differing variabilities, it should be kept clearly in mind that application of the factors will not necessarily result in the most satisfactory figure for use in current work if other evidence suggests that base period relationships are not continuing. Factors should be applied to U.S. totals only and not to State or area totals. The majority of these apply to full-season totals only.

Explanation of terms and statistical series

Gross weight running bale. A gross weight running bale of cotton is a "flat" bale of varying lint weight and tare as it comes from the gin. The 1958-62 average gross weight of running bales was 501.0 pounds. Since for more accurate statistical use the gross weight running bale has tare of 21.1 pounds, net weight of the running bale is 479.9 pounds of lint.

Tare. Generally the tare per running bale is considered to be 21 pounds, consisting of approximately 9 pounds of ties and approximately 12 pounds of bagging. Tare on the 500-pound gross weight "statistical" bale is calculated to have averaged 21.1 pounds over the 1958-62 period.

500-pound gross weight bale. To permit more accurate year-to-year comparisons of bales of fixed weight, the Crop Reporting Board publishes production estimates in terms of "statistical" bales of 500 pounds gross weight. Deducting tare of 21.1 pounds for this type of bale results in net lint weight of 478.9 pounds per 500 pound gross weight bale.

Lint and cottonseed turnout. The 1958-62 average percentage of lint turnout from seed cotton at gins was 34% for hand-picked, 24% for hand-snapped, 32% for machine-picked, 22% for machine-stripped, and 30% for all methods of harvest except machine scrapped, a recent innovation. Lint turnout for machine scrapped averaged about 18% in 1962 and 1963. The seed cotton-to-lint and seed cotton-to-cottonseed factors and their opposites in the accompanying table were determined excluding trash, to permit their direct application to the Crop Reporting Board's estimates on cottonseed and lint.

Table 69.--Types of bales used by various agencies in compiling statistical series on cotton

U.S. Dept. of Agriculture						
Crop Reporting Board	Foreign Agricultural Service	International Cotton Advisory Committee		Census Bureau		
500-lb. gross weight bales	500-lb. gross weight bales	478-lb. net weight bales	Running bales	500-lb. gross weight bales	Running bales	
	1/					
United States: Production	United States: Exports of American cotton Foreign: Production Imports Exports Stocks	Foreign: Production Imports Exports Stocks Consumption	United States: Production Exports Stocks Consumption	United States: Production Imports Stocks and consumption of foreign cotton in U.S.	United States: Production Ginnings Exports Stocks Consumption of domestic cotton	

1/ Net weight of 480 pounds lint is used for most countries beginning with 1946, and 478 pounds for prior years.

Table 70.--Factors for converting cotton acreages and products to various equivalents 1/

From	To obtain	Factors
Acreage planted	Acreage harvested	.952
	Cottonseed produced - tons	.374
	Cottonseed crushed - tons	.345
	Lint, running bales	.901
	Lint, 500-lb. gross wt. bales	.902
	Linters, 600-lb. gross wt. bales	.102
Acreage harvested	Acreage planted	1.050
	Cottonseed produced - tons	.392
	Cottonseed crushed - tons	.363
	Lint, running bales	.946
	Lint, 500-lb. gross wt. bales	.948
	Linters, 600-lb. gross wt. bales	.107
Cottonseed produced, tons	Cottonseed crushed - tons	.924
	Linters, 600-lb. gross wt. bales	.273
Cottonseed crushed, tons	Linters, 600-lb. gross wt. bales	.296
Lint, running bales	Cottonseed produced - tons	.415
	Cottonseed crushed - tons	.383
	Lint, 500-lb. gross wt. bales	.998
	Lint, pounds	479.9
	Linters, 600-lb. gross wt. bales	.113
Lint, 500-lb. gross wt. bales	Cottonseed produced - tons	.414
	Cottonseed crushed - tons	.383
	Lint, running bales	1.002
	Lint, pounds	478.9
	Linters, 600-lb. gross wt. bales	.113
Linters, 600-lb. gross wt. bales	Linters, pounds	578.0
Seed cotton, pounds	Lint, pounds	2/.366
	Cottonseed, pounds	2/.634
Cottonseed, pounds	Seed cotton, pounds	2/1.577

1/ All figures based on the 5-year average, 1958-62.
2/ Determined on the basis of Crop Reporting Board estimates of total lint cotton and cottonseed production excluding trash.

Cottonseed for planting: The 1958-62 average quantity of seed used for planting one acre of cotton was 31.0 pounds per acre.

Table 71.--Factors for converting yield per acre, bale weights, and pounds of lint to various equivalents 1/

From	To obtain	Factors
Lint, yield per planted acre, lb.	Lint, yield per harvested acre, lb.	1.050
Lint, yield per harvested acre, lb.	Lint, yield per planted acre, lb.	.953
Lint, gross wt. of running bales, lb.	Lint, net wt. of running bales, lb.	.958
Lint, net wt. of running bales, lb.	Lint, gross wt. of running bales, lb.	1.044
Lint, lb.	Seed cotton, lb.	2/ 2.732
	Cottonseed, lb.	2/ 1.732

1/ All figures based on the 5-year average, 1958-62.
2/ Determined on the basis of the Crop Reporting Board's estimates of total lint cotton and cottonseed production excluding trash.

Table 72.--Factors relating to cottonseed products

Product	Factors for converting cottonseed to products	
	Tons to tons	Tons to pounds
Crude oil 1/	.169	338
Cake and meal	.464	927
Hulls	.232	464
Linters	.088	177
Waste	.047	94

1/ These figures are 5-year, 1958-62 averages and differ slightly from the 5-year, 1959-63 averages shown in table 24.

Table 73.--Space displacement of one ton of cotton and cotton products

Product	Cubic feet
Untramped seed cotton	340
Cottonseed	76
Meal	37
Cake and meal, sacked	38
Oil	35

Table 74.--Scoured yield of greasy shorn and pulled domestic wools

Grades of greasy wool	Domestic production of greasy wool 1/	Scoured yield	
		Shorn	Pulled
	Percent	Percent	Percent
Fine; 64's and finer	42.7	42	67
1/2 blood; 60's and 62's	20.1	44	72
3/8 blood; 56's and 58's	17.7	54	79
1/4 blood; 50's and 54's	16.0	58	81
Low 1/4 blood; 46's and 48's	3.0	60	82
Common and braid; 36's, 40's and 44's	.5	63	84
Weighted average, all grades	100.0	47.7	72.9

1/ Adapted from Wools for Carpets and Papermakers' Felt, United States Tariff Commission, 1959, and from unpublished data furnished by the Statistical Reporting Service.

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Table 75.--Factors for converting ounces to pounds

Number of ounces	+ 0 ounces	+ 1/4 ounce	+ 1/2 ounce	+ 3/4 ounce
0	---	0.015625	0.031250	0.046875
1	0.062500	.078125	.093750	.109375
2	.125000	.140625	.156250	.171875
3	.187500	.203125	.218750	.234375
4	.250000	.265625	.281250	.296875
5	.312500	.328125	.343750	.359375
6	.375000	.390625	.406250	.421875
7	.437500	.453125	.468750	.484375
8	.500000	.515625	.531250	.546875
9	.562500	.578125	.593750	.609375
10	.625000	.640625	.656250	.671875
11	.687500	.703125	.718750	.734375
12	.750000	.765625	.781250	.796875
13	.812500	.828125	.843750	.859375
14	.875000	.890625	.906250	.921875
15	.937500	.953125	.968750	.984375

Table 76.--Factors for converting domestic and metric weights and measures commonly used for agricultural commodities

Weight	Equivalent		Weight	Equivalent	
1 ounce	= 28.3495	grams	1 gram	= .035274	ounces
1 pound	= 455.5925	grams	1 gram	= .0022046	pounds
1 pound	= .4535925	kilograms	1 kilogram	= 2.204622	pounds
1 pound	= .0045359	metric quintals	1 metric quintal	= 220.4622	pounds
1 pound	= .0005	short tons	1 short ton	= 2000	pounds
1 pound	= .0004536	metric tons	1 metric ton	= 2204.622	pounds
1 pound	= .0004464	long tons	1 long ton	= 2240	pounds
1 kilogram	= .0011023	short tons	1 short ton	= 907.1849	kilograms
1 kilogram	= .001	metric tons	1 metric ton	= 1000	kilograms
1 kilogram	= .0009842	long tons	1 long ton	= 1016.047	kilograms
1 short ton	= .907185	metric tons	1 metric ton	= 1.102311	short tons
1 long ton	= 1.016047	metric tons	1 metric ton	= .984206	long tons
1 short ton	= .892857	long tons	1 long ton	= 1.120	short tons
1 million lbs.	= 500	short tons	1 short ton	= .002	million lbs.
1 million lbs.	= 453.5925	metric tons	1 metric ton	= .0022046	million lbs.
1 million lbs.	= 446.4286	long tons	1 long ton	= .002240	million lbs.
60-lb. bushel: Wheat, white potatoes, soybeans					
1 bushel	= .030	short tons	1 short ton	= 33.333	bushels
1 bushel	= .0272155	metric tons	1 metric ton	= 36.7437	bushels
1 bushel	= .0267857	long tons	1 long ton	= 37.333	bushels
1 bushel	= .272155	metric quintals	1 metric quintal	= 3.67437	bushels
1 bushel	= 27.2155	kilograms	1 kilogram	= .036744	bushels
56-lb. bushel: Corn, rye, sorghum grain, flaxseed					
1 bushel	= .0280	short tons	1 short ton	= 35.714	bushels
1 bushel	= .0254	metric tons	1 metric ton	= 39.368	bushels
1 bushel	= .0250	long tons	1 long ton	= 40.0	bushels
48-lb. bushel: Barley, buckwheat, apples					
1 bushel	= .0240	short tons	1 short ton	= 41.667	bushels
1 bushel	= .021772	metric tons	1 metric ton	= 45.9296	bushels
1 bushel	= .021429	long tons	1 long ton	= 46.667	bushels
32-lb. bushel: Oats					
1 bushel	= .0160	short tons	1 short ton	= 62.50	bushels
1 bushel	= .014515	metric tons	1 metric ton	= 68.8944	bushels
1 bushel	= .014286	long tons	1 long ton	= 70.0	bushels
38-lb. bushel: Oats					
1 bushel	= .0190	short tons	1 short ton	= 52.63	bushels
1 bushel	= .01724	metric tons	1 metric ton	= 58.016	bushels
1 bushel	= .01696	long tons	1 long ton	= 58.94	bushels

APPENDIX

Table 77.--Conversion factors for test weight per Winchester bushel, test weight per imperial bushel, and kilograms per hectoliter 1/

	Multiply by factor
Pounds per Winchester bushel to	
Pounds per imperial bushel	1.032
Kilograms per hectoliter	1.287
Pounds per imperial bushel to	
Pounds per Winchester bushel	.969
Kilograms per hectoliter	1.247
Kilograms per hectoliter to	
Pounds per Winchester bushel	.777
Pounds per imperial bushel	.802

1/ Winchester bushel is the standard U.S. bushel (volume).

Table 78.--Comparison of test weight per Winchester bushel, test weight per imperial bushel, and kilograms per hectoliter

(25 to 65 pound basis Winchester bushel)

Test weight per Winchester bushel	Test weight per imperial bushel	Kilograms per hectoliter
Pounds	Pounds	
25.0	25.8	32.2
26.0	26.8	33.5
27.0	27.9	34.7
28.0	28.9	36.0
29.0	29.9	37.3
30.0	31.0	38.6
31.0	32.0	39.9
32.0	33.0	41.2
33.0	34.1	42.5
34.0	35.1	43.8
35.0	36.1	45.0
36.0	37.2	46.3
37.0	38.2	47.6
38.0	39.2	48.9
39.0	40.2	50.2
40.0	41.3	51.5
41.0	42.3	52.8
42.0	43.3	54.1
43.0	44.4	55.3
44.0	45.4	56.6
45.0	46.4	57.9
46.0	47.5	59.2
47.0	48.5	60.5
48.0	49.5	61.8
49.0	50.6	63.1
50.0	51.6	64.4
51.0	52.6	65.6
52.0	53.7	66.9
53.0	54.7	68.2
54.0	55.7	69.5
55.0	56.8	70.8
56.0	57.8	72.1
57.0	58.8	73.4
58.0	59.9	74.6
59.0	60.9	75.9
60.0	61.9	77.2
61.0	63.0	78.5
62.0	64.0	79.8
63.0	65.0	81.1
64.0	66.0	82.4
65.0	67.1	83.7

APPENDIX

Table 79.--Factors for obtaining retail weights from weights at specified market levels

Commodity	Primary form	Factors
Dairy products		
Fluid milk and cream	Farm weight	0.98
Cheese, American and other	Factory weight	1.0
Meats		
Beef	Carcass weight	.74
Veal	do.	.83
Lamb	do.	.89
Pork	do.	.93
Lean pork	do.	.65
Bacon and saltside	do.	.28
Poultry		
Chickens	Ready-to-cook weight	1.00
Turkeys	do.	1.00
Eggs	Farm weight	1/.97
Fish		
Fresh and frozen fish	Edible weight	2/1.00
Shellfish, fresh and frozen	do.	1.00
Cured fish	Cured weight	1.00
Fats and oils		
Lard	Fat content	1.00
Margarine	do.	1.24
Compounds and vegetable and cooking fats	do.	1.00
Peanuts, shelled edible	Farmer's stock basis	.655
Sugar	Refined	1.00
	Raw value	.935
Dry beans and peas	Farm weight, cleaned	.96
Fresh fruits		
Apples	Farm weight	0.96
Apricots	do.	.91
Avocados	do.	.94
Bananas	do.	.95
Cherries	do.	.92
Citrus:		
Oranges	do.	.97
Tangerines	do.	.94
Grapefruit	do.	.97
Lemons	do.	.96
Limes	do.	.95
Tangelos	do.	.96

Continued--

Table 79.--Factors for obtaining retail weights from weights at specified market levels Continued--

Commodity	Primary form	Factors
Fresh fruits continued		
Cranberries	Farm weight	.96
Dates	do.	.96
Figs	do.	.91
Grapes	do.	.91
Melons:		
Cantaloupes	do.	.92
Watermelons	do.	.90
Nectarines	do.	.95
Peaches	do.	.94
Pears	do.	.95
Pineapples	do.	.95
Plums or prunes	do.	.95
Strawberries	do.	.92
Canned fruits and juices	Canned weight	1.00
Chilled fruits and juices	Product weight	1.00
Dried fruits	Packed processed weight	1.00
Frozen fruits and juices	Frozen weight	1.00
Fresh vegetables		
Onions, dry	Farm weight	.94
Potatoes	do.	.96
Sweet potatoes	do.	.90
Tomatoes	do.	.85
Dark green and deep yellow vegetables:		
Broccoli	do.	.92
Carrots	do.	.97
Escarole	do.	.93
Kale	do.	.88
Peppers, green	do.	.92
Spinach	do.	.88
Other vegetables:		
Artichokes	do.	.93
Asparagus	do.	.91
Beans:		
Lima	do.	.92
Snap	do.	.94
Beets	do.	.93
Brussels sprouts	do.	.92
Cabbage	do.	.93
Cauliflower	do.	.92
Celery	do.	.93
Corn	do.	.92
Cucumbers	do.	.92
Eggplant	do.	.90

Continued--

APPENDIX

Table 79.--Factors for obtaining retail weights from weights at specified market levels Continued--

Commodity	Primary form	Factors
Other vegetables continued		
Garlic	Farm weight	.81
Lettuce, all varieties	do.	.93
Onions, green	do.	.94
Peas	do.	.95
Canned vegetables	Canned weight	1.00
Frozen vegetables	Frozen weight	1.00
Dehydrated vegetables	Dehydrated weight	1.00
Grain products		
Barley, pearl	Farm weight of barley	.550
Barley, other food use	do.	3/.708
Wheat products:		
White flour	Farm weight of wheat	.731
Whole wheat flour or meal	do.	.98
Corn products:		
Corn meal	Farm weight of shell corn	.696
Hominy grits	do.	.518
Corn starch	do.	.614
Corn cereals	do.	.384
Corn sirup	Farm weight of shelled corn	.672
Corn sugar	do.	.536
Oat cereal	Farm weight of oats	.598
Rye flour	Farm weight of rye	.80
Buckwheat flour	Farm weight of buckwheat	.60
Rice, milled	Wholesale weight	1.00
Beverages		
Coffee	Green bean basis	.84
Tea	Import weight basis	1.00
Cocoa products	Bean basis	4/.80

1/ This factor allows for breakage only. In addition there is a loss of weight of about 4 percent from producer to retailer because of evaporation. The latter loss does not affect the nutritional value of the eggs.

2/ Factor for obtaining edible weight from round weight is 0.45. Factor for obtaining dressed weight from round weight is 0.70.

3/ In terms of malt equivalent.

4/ Chocolate liquor equivalent (53% fat content).

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/

Product	Container size	Approximate -- Net weight or volume	Cups or pieces	Servings per container	Size of each serving
Fruits:					
Apples; apple sauce; berries; cherries; grapes; grapefruit and orange sections; fruit cocktail; fruits for salad; sliced peaches; pears; pineapple, chunks, crushed, tidbits	No. 8Z tall	8½ - 8 3/4 oz.	1 cup	2	½ cup
	No. 303	16 - 17 oz.	1 3/4 - 2 cups	4	½ cup
	No. 2	1 lb. 4 oz.	2¼ - 2½ cups	5	½ cup
	No. 2½	1 lb. 13 oz.	3¼ - 3½ cups	7	½ cup
	No. 10	6 lb. 2 oz. to 6 lb. 12 oz.	12 - 13 cups	25	½ cup
Apricots, whole, medium size	No. 303	16 - 17 oz.	8 - 14	4	2 - 3 apricots
	No. 2½	1 lb. 13 oz.	15 - 18	7	2 - 3 apricots
	No. 10	6 lb. 10 oz.	50 - 60	25	2 - 3 apricots
Apricots, halves, medium size	No. 8Z tall	8 3/4 oz.	6 - 12	2	3 - 5 halves
	No. 303	16 - 17 oz.	12 - 20	4	3 - 5 halves
	No. 2½	1 lb. 13 oz.	26 - 35	7	3 - 5 halves
	No. 10	6 lb. 10 oz.	95 - 130	25	3 - 5 halves
Peaches, halves; pears, halves	No. 303	16 - 17 oz.	6 - 10	3	2 medium halves
	No. 2½	1 lb. 13 oz.	7 - 12	7	1 large half
	No. 10	6 lb. 10 oz.	45 - 65	25	2 medium halves
Pineapple, sliced	No. 1 flat	9 oz.	4	2	2 slices
	No. 2	1 lb. 4 oz.	10	5	2 slices
	No. 2½	1 lb. 14 oz.	8	8	1 large slice
	No. 10	6 lb. 12 oz.	28 - 50	25	1 large or 2 small slices
Plums; prunes	No. 8Z tall	8 3/4 oz.	7 - 9	2	2 - 3 plums
	No. 303	16 - 17 oz.	10 - 14	4	2 - 3 plums
	No. 2½	1 lb. 14 oz.	12 - 20	7	2 - 3 plums
	No. 10	6 lb. 10 oz.	40 - 60	25	2 - 3 plums
Figs	No. 8Z tall	8 - 9 oz.	6 - 12	2	3 - 4 figs
	No. 303	16 - 17 oz.	12 - 20	4	3 - 4 figs
	No. 2½	1 lb. 14 oz.	18 - 24	7	3 - 4 figs
	No. 10	7 lb.	70 - 90	25	3 - 4 figs
Cranberry sauce	No. 6 - 8Z	6 - 8 oz.	3/4 - 1 cup	4	¼ cup
	No. 300	1 lb.	2 cups	8	¼ cup
	No. 10	7 lb. 5 oz.	12 - 13 cups	50	¼ cup
Olives, ripe 2/	No. 8Z tall	4½ oz.	.....	.....	3 olives
	No. 1 tall	9 oz.	.....	.....	3 olives
	Quart Olive	1 lb. 2 oz.	.....	.....	3 olives
	No. 10	4 lb. 2 oz.	.....	.....	3 olives
Vegetables:					
Asparagus cuts; beans, green and wax, kidney, lima; beets; carrots; corn; hominy; okra; onions; peas; peas and carrots; black eye peas; pumpkins; sauerkrat; spinach and other greens; squash; succotash; sweetpotatoes 3/; tomatoes; mixed vegetables; potatoes, white, cut, sliced	No. 8Z tall	8 - 8½ oz.	1 cup	2	½ cup
	No. 2 vacuum	12 oz.	1½ - 1 3/4 cups	4	½ cup
	No. 303	16 - 17 oz.	2 cups	4	½ cup
	No. 2	1 lb. 4 oz.	2¼ - 2½ cups	5	½ cup
	No. 2½	1 lb. 13 oz.	3¼ - 3½ cups	7	½ cup
	No. 10	6 lb. 2 oz. to 6 lb. 12 oz.	12 - 13 cups	25	½ cup

Continued--

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/, Continued--

Product	Container size	Approximate -- Net weight or volume	Cups or pieces	Servings per container	Size of each serving
Vegetables: continued					
Asparagus spears, medium size	No. 1 picnic	10½ oz.	9 - 12 spears	2	4 - 6 spears
	Variable	14½ - 16 oz.	16 - 28 spears	3	4 - 6 spears
	No. 2	1 lb. 3 oz.	20 - 30 spears	5	4 - 6 spears
	No. 5 squat	4 lb. 4 oz.	115 - 145 spr.	25	4 - 6 spears
Potatoes: White, peeled, whole, small	No. 303	16 - 17 oz.	8 - 12	4	2 - 3 potatoes
	No. 10	6 lb. 6 oz.	55 - 65	25	2 - 3 potatoes
Beans: Baked with pork in sauce	No. 8Z short	8 3/4 oz.	1 cup	1 - 2	½ - 3/4 cup
	No. 300	1 lb.	1 3/4 cups	3 - 4	½ - 3/4 cup
	Jumbo	1 lb. 10 oz.	3 cups	4 - 6	½ - 3/4 cup
	No. 10	6 lb. 14 oz.	12 - 13 cups	16 - 25	½ - 3/4 cup
Mushrooms 2/	No. 2Z mushroom	2 oz.	1/3 cup	1	1/3 cup
	No. 4Z mushroom	4 oz.	2/3 cup	2	1/3 cup
	No. 8Z mushroom	8 oz.	1½ cups	4	1/3 cup
	No. 10	4 lb. 4 oz.	12 - 13 cups	36	1/3 cup
Pimientos: Peppers, red sweet	.....	2 oz.	¼ cup	.....	.....
	No. 4Z pimientos	4 oz.	½ cup	.....	.....
	No. 7Z pimientos	7 oz.	1 cup	.....	.....
	No. 10	6 lb. 13 oz.	12 - 13 cups	.....	.....
Juices:					
Apple; cherry; cranberry;	No. 6 - 8Z tall	6 - 8 oz.	3/4 - 1 cup	1 - 2	4 - 6 oz.
grape; grapefruit; grape-	No. 211 cylinder	12 fl. oz.	1½ cups	3	4 oz.
fruit - orange; loganberry;				2	6 oz.
nectars; orange; pineapple;	.....	1 pint	2 cups	4	4 oz.
prune; tangerine; carrot;				3	6 oz.
sauerkraut; tomato; vegetable;	No. 2	1 pt. 2 fl. oz.	2¼ - 2½ cups	5	4 oz.
vegetable cocktail				3	6 oz.
	No. 2 cylinder	1 pt. 7 fl. oz.	3 cups	6	4 oz.
				4	6 oz.
	.....	1 quart	4 cups	8	4 oz.
				5	6 oz.
	No. 3 cylinder	1 qt. 14 fl. oz.	5 3/4 cups	12	4 oz.
				8	6 oz.
	No. 10	3 quarts	12 cups	24	4 oz.
				16	6 oz.
Lemon; Lime	No. 6Z	5½ - 6 oz.	3/4 cup	.....	.....
Soups:					
Condensed	No. 1 picnic	10½ - 12 oz.	1¼ cups (2½ cups prepared soup)	3	3/4 cup
	No. 3 cylinder	3 lb. 2 oz.	5 3/4 cups (11½ cups prepared soup)	12 - 16	3/4 cup
Ready-to-serve	No. 8Z tall	8 fl. oz. indv.	1 cup	1	1 cup
	No. 1 picnic	12 fl. oz.	1½ cups	2	3/4 cup
	No. 303	15 fl. oz.	2 cups	3	3/4 cup
	No. 2½	1 pt. 5 fl. oz. to 1 pt. 9 fl. oz.	2½ - 3 cups	4	3/4 cup
	No. 10	3 qt.	12 cups	20	3/4 cup

Continued--

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/, Continued--

Product	Container size	Approximate -- Net weight or volume	Cups or pieces	Servings per container	Size of each serving
Meat and Poultry: 4/					
Chili con carne; chili con carne with beans	No. 300	15 - 16 oz.	2 cups	3 - 4	½ - 2/3 cup
		1½ lb.	3 cups	4 - 5	½ - 2/3 cup
	No. 10	6 lb. 12 oz.	12 - 13 cups	18 - 24	½ - 2/3 cup
Corned beef		12 oz.	.....	4	3 oz.
		6 lb.	.....	30	3 oz.
Corned beef hash		8 oz.	1 cup	1 - 2	½ - 2/3 cup
		1 lb.	2 cups	3 - 4	½ - 2/3 cup
		1½ lb.	3 cups	5 - 6	½ - 2/3 cup
		5 lb. 8 oz. - 5 lb. 14 oz.	12 - 13 cups	18 - 24	½ - 2/3 cup
Deviled ham		2¼ - 3 oz.	1/3 cup	3 - 4	1½ tbsp.
		4½ oz.	½ cup	5 - 6	1½ tbsp.
Deviled meat; potted meat; meat spreads		2 - 3½ oz.	1/3 cup	3 - 4	1½ tbsp.
		5½ oz.	3/4 cup	8	1½ tbsp.
Luncheon meat		12 oz.	.....	4	2 slices
		6 lb.	.....	32	(3½" X 3/4" X 3/8")
Tongue: beef, lamb, pork		6 oz.	.....	2	3 oz.
		12 oz.	.....	4	3 oz.
		1 - 2 lb.	.....	5 - 10	3 oz.
Hams: Whole, small		1½ - 4 lb.	.....	3 - 4	2 slices
medium		6 - 8 lb.	.....	per	(4" X 3" X 1/8")
large		9 - 14 lb.	.....	pound	
Poultry, boned; chicken, turkey		5 - 6 oz.	.....	2	3 oz.
		12 oz.	.....	4	3 oz.
		1 lb. 14 oz.	.....	10	3 oz.
		2 lb. 3 oz.	.....	12	3 oz.
Sausage, pork; frankfurters		8 oz.	11 - 12	3 - 4	3 sausages
		12 oz.	8 - 9 large	4	2 sausages
Stew: beef, lamb		1 lb.	2 cups	2	3/4 cup
		1 lb. 4 oz.	2½ cups	3	3/4 cup
		1½ lb.	3 cups	4	3/4 cup
Vienna sausage		4 oz.	8 - 10	2	4-5 sausages
		9 oz.	16 - 20	4	4-5 sausages

Continued--

Table 80.--Net content and approximate servings per container for various canned foods in common can and jar sizes 1/, Continued--

Product	Container size	Approximate -- Net weight or volume	Cups or pieces	Servings per container	Size of each serving
Fish and seafood: 4/					
Clams		7½ oz.	1 cup	2	½ cup
Crab meat		5½ - 7½ oz.	3/4 - 1 cup	2 - 3	1/3 - ½ cup
Mackerel		1 lb.	2 cups	4	½ cup
Oysters		8 oz.	1 cup	2	½ cup
Salmon		7 3/4 oz.	1 cup	2	½ cup
		1 lb.	2 cups	4	½ cup
Sardines		3¼ - 4 oz.	6 - 10	1½	5 - 7 sardines
Sardines, pilchards		15 oz.	6 - 7 large	4	1½ sardines
Shrimp 2/		4½ - 6½ oz.	25 - 35	3 - 4	10 - 12 medium size
					6 - 8 jumbo size
Tuna in oil		6 - 7 oz.	1 cup	2	½ cup
		13 oz.	1 3/4 cup	4	½ cup
Infant foods:					
Vegetables and fruits:					
Infant, strained, homogenized		4 3/4 oz.	½ cup	.....	.....
Junior, chopped		6½ oz.	3/4 cup	.....	.....
		8 oz.	7/8 cup	.....	.....
Meats:					
Infant, strained		3½ oz.	7 tablespoons	.....	.....
Junior, chopped		3½ oz.	7 tablespoons	.....	.....
Soups:					
Infant		4 3/4 oz.	½ cup	.....	.....
Junior		8 oz.	7/8 cup	.....	.....

1/ The net weight of various foods in the same size can or glass jar will vary with the density of the food. For the most part only minimum weights are shown in the table. Cups or pieces and servings in the table are approximate; and sizes of servings are given in rounded numbers to furnish a practical guide.

2/ Declared as drained weight. (The number of pieces per container varies as to size of the piece).

3/ Sweetpotatoes also come in 1 lb. 2 oz. to 1 lb. 7 oz. cans.

4/ Contents usually declared as net weight. Container size is variable, strained and homogenized foods for infants, and chopped junior foods, come in small jars and jars suitable for the smaller servings used.

Source: National Canners Association, Washington, D. C.

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