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DEPARTMENT OF AGRICULTURE

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Agricultural Statistics, 2002

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Introduction

Agricultural Statistics is published each year to meet the diverse need for a reliable reference book on agricultural production, supplies, consumption, facilities, costs, and returns. Its tables of annual data cover a wide variety of facts in forms suited to most common use.

Inquiries concerning more current or more detailed data, past and prospective revisions, or the statistical methodology used should be addressed directly to the agency credited with preparing the table. Most of the data were prepared or compiled in the U.S. Department of Agriculture.

The historical series in this volume have been generally limited to data beginning with 1991 or later.

Foreign agricultural trade statistics include Government as well as non-Government shipments of merchandise from the United States and Territories to foreign countries. They do not include U.S. shipments to the U.S. Armed Forces abroad for their own use or shipments between the States and U.S. Territories. The world summaries of production and trade of major farm products are prepared by the U.S. Department of Agriculture from reports of the U.S. Department of Commerce, official statistics of foreign governments, other foreign source materials, reports of U.S. Agricultural Attachés and Foreign Service Officers, and the result of office research.

Statistics presented in many of the tables represent actual counts of the items covered. Most of the statistics relating to foreign trade and to Government programs, such as numbers and amounts of loans made to farmers, and amounts of loans made by the Commodity Credit Corporation, etc., are data of this type. A large number of other tables, however, contain data that are estimates made by the Department of Agriculture.

The estimates for crops, livestock, and poultry made by the U.S. Department of Agriculture are prepared mainly to give timely current State and national totals and averages. They are based on data obtained by sample surveys of farmers and of people who do business with farmers. The survey data are supplemented by information from the Censuses of Agriculture taken every five years and check data from various sources. Being estimates, they are subject to revision as more data become available from commerical or Government sources. Unless otherwise indicated, the totals for the United States shown in the various tables on area, production, numbers, price, value, supplies, and disposition are based on official Department estimates. They exclude States for which no official estimates are compiled.

DEFINITIONS

''Value of production'' as applied to crops in the various tables, is derived by multiplying production by the estimated season average price received by farmers for that portion of the commodity actually sold. In the case of fruits and vegetables, quantities not harvested because of low prices or other economic factors are not included in value of production. The word ''Value'' is used in the inventory tables on livestock and poultry to mean value of the number of head on the inventory date. It is derived by multiplying the number of head by an estimated value per head as of the date.

The word ''Year'' (alone) in a column heading means calendar year unless otherwise indicated. ''Ton'' when used in this book without qualifications means a short ton of 2,000 pounds.

WEIGHTS, MEASURES, AND CONVERSION FACTORS

The following table on weights, measures, and conversion factors covers the most important agricultural products, or the products for which such information is most frequently asked of the U.S. Department of Agriculture. It does not cover all farm products nor all containers for any one product.

The information has been assembled from State schedules of legal weights, various sources within the U.S. Department of Agriculture, and other Government agencies. For most products, particularly fruits and vegetables, there is a considerable variation in weight per unit of volume due to differences in variety or size of commodity, condition and tightness of pack, degree to which the container is heaped, etc. Effort has been made to select the most representative and fairest average for each product. For those commodities which develop considerable shrinkage, the point of origin weight or weight at harvest has been used.

The approximate or average weights as given in this table do not necessarily have official standing as a basis for packing or as grounds for settling disputes. Not all of them are recognized as legal weight. The table was prepared chiefly for use of workers in the U.S. Department of Agriculture who have need of conversion factors in statistical computations.

WEIGHTS, MEASURES, AND CONVERSION FACTORS
(See explanatory text just preceding this table)

WEIGHTS AND MEASURES

Commodity	Unit[1]	Approximate net weight	
		U.S.	Metric
		Pounds	*Kilograms*
Alfalfa seed	Bushel	60	27.2
Apples	.....do	48	21.8
Do	Loose pack	38–42	17.2–19.1
Do	Tray pack	40–45	18.1–20.4
Do	Cell pack	37–41	16.8–18.6
Apricots	Lug (brentwood)[2]	24	10.9
Western	4–basket crate[3]	26	11.8
Artichokes:			
Globe	Ctn, by count and loose pack	20–25	9.1–11.3
Jerusalem	Bushel	50	22.7
Asparagus	Crate (NJ)	30	13.6
Avocados	Lug[4]	12–15	5.4–6.8
Bananas	Fiber folding box[5]	40	18.1
Barley	Bushel	48	21.8
Beans:			
Lima, dry	.....do	56	25.4
Other, dry	.....do	60	27.2
	Sack	100	45.4
Lima unshelled	Bushel	28–32	12.7–14.5
Snap	.....do	28–32	12.7–14.5
Beets:			
Topped	Sack	25	11.3
Bunched	½ crate 2 dzbchs	36–40	16.3–18.1
Berries frozen pack:			
Without sugar	50–gal. barrel	380	172
3 + 1 pack	.....do	425	193
2 + 1 pack	.....do	450	204
Blackberries	12, ½-pint basket	6	2.7
Bluegrass seed	Bushel	14–30	6.4–13.6
Broccoli	Wirebound crate	20–25	9.1–11.3
Broomcorn (6 bales per ton)	Bale	333	151
Broomcorn seed	Bushel	44–50	20.0–22.7
Brussels sprouts	Ctn, loose pack	25	11.3
Buckwheat	Bushel	48	21.8
Butter	Block	55,68	25,30.9
Cabbage	Open mesh bag	50	22.7
Do	Flat crate (1¾ bu)	50–60	22.7–27.2
Do	Ctn, place pack	53	24.0
Cantaloups	Crate[6]	40	18.1
Carrots	Film plastic Bags, mesh sacks & cartons holding 48 1 lb. film bags	55	24.9
Without tops	Burlap sack	74–80	33.6–36.3
Castor beans	Bushel	41	18.6
Castor oil	Gallon	[7]8	3.6
Cauliflower	W.G.A. crate	50–60	22.7–27.2
Do	Fiberboard box wrapper leaves removed film-wrapped, 2 layers	23–35	10.4–15.9
Celery	Crate[8]	60	27.2
Cherries	Lug (Campbell)[9]	16	7.3
Do	Lug	20	9.1
Clover seed	Bushel	60	27.2
Coffee	Bag	132.3	60
Corn:			
Ear, husked	Bushel	[10]70	31.8
Shelled	.....do	56	25.4
Meal	.....do	50	22.7
Oil	Gallon	[7]7.7	3.5
Syrup	.....do	11.72	5.3
Sweet	Wirebound crate	50	22.7
Do	Ctn, packed 5 oz. ears	50	22.7
Do	WDB crate, 4½–5 oz. (from FL & NJ)	42	19.1
Cotton	Bale, gross	[11]500	227
Do	Bale, net	[11]480	218
Cottonseed	Bushel	[12]32	14.5
Cottonseed oil	Gallon	[7]7.7	3.5
Cowpeas	Bushel	60	27.2
Cranberries	Barrel	100	45.4
Do	¼–bbl. box[13]	25	11.3
Cream, 40–percent butterfat	Gallon	8.38	3.80
Cucumbers	Bushel	48	21.8
Dewberries	24–qt. crate	36	16.3
Eggplant	Bushel	33	15.0
Eggs, average size	Case, 30 dozen	47.0	21.3
Escarole	Bushel	25	11.3
Figs, fresh	Box single layer[14]	6	2.7
Flaxseed	Bushel	56	25.4
Flour, various	Bag	100	45.4
Do	Ctn or Crate, Bulk	30	13.6
Garlic	Ctn of 12 tubes or 12 film bag pkgs 12 cloves each	10	4.5
Grapefruit:			
Florida and Texas	½–box mesh bag	40	18.1
Florida	1⅗ bu. box	85	38.6
Texas	1⅖ bu. box	80	36.3
California and Arizona	Box[15]	[16]67	30.4
Grapes:			
Eastern	12–qt. basket	20	9.1
Western	Lug	28	12.7
Do	4–basket crate[17]	20	9.1
Hempseed	Bushel	44	20.0
Hickory nuts	.....do	50	22.7
Honey	Gallon	11.84	5.4
Honeydew melons	⅔ Ctn	28–32	12.7–14.5
Hops	Bale, gross	200	90.7

See footnotes on page ix.

WEIGHTS AND MEASURES—Continued

Commodity	Unit [1]	Approximate net weight	
		U.S.	Metric
		Pounds	*Kilograms*
Horseradish roots	Bushel	35	15.9
Do	Sack	50	22.7
Hungarian millet seed	Bushel	48–50	21.8–22.7
Kale	Ctn or crate	25	11.3
Kapok seed	...do	35–40	15.9–18.1
Lard	Tierce	375	170
Lemons:			
California and Arizona	Box [18]	76	34.5
Do	Carton	38	17.2
Lentils	Bushel	60	27.2
Lettuce, iceberg	Iceberg, carton packed 24	43–52	19.5–23.6
Lettuce, hothouse	24-qt. basket	10	4.5
Limes (Florida)	Box	88	39.9
Linseed oil	Gallon	[7] 7.7	3.5
Malt	Bushel	34	15.4
Maple syrup	Gallon	11.02	5.0
Meadow fescue seed	Bushel	24	10.9
Milk	Gallon	8.6	3.9
Millet	Bushel	48–60	21.8–27.2
Molasses:			
edible	Gallon	11.74	5.3
inedible	...do	11.74	5.3
Mustard seed	Bushel	58–60	26.3–27.2
Oats	...do	32	14.5
Olives	Lug	25–30	11.3–13.6
Olive oil	Gallon	[7] 7.6	3.4
Onions, dry	Sack	50	22.7
Onions, green bunched	Ctn, 24-dz bchs	10–16	4.5–7.3
Oranges:			
Florida	Box	90	40.8
Texas	Box	85	38.5
California and Arizona	Box [15]	75	34.0
Do	Carton	38	17.2
Orchardgrass seed	Bushel	14	6.4
Palm oil	Gallon	[7] 7.7	3.5
Parsnips	Bushel	50	22.7
Peaches	...do	48	21.8
Do	2 layer ctn or lug	22	10.0
Do	¾-Bu, Ctn/crate	38	17.2
Peanut oil	Gallon	[7] 7.7	3.5
Peanuts, unshelled:			
Virginia type	Bushel	17	7.7
Runners, South-eastern	...do	21	9.5
Spanish:			
Southeastern	...do	25	11.3
Southwestern	...do	25	11.3
Pears:			
California	Bushel	48	21.8
Other	...do	50	22.7
Do	Std box, 4/5 bu	45–48	20.4–21.8
Do	Ctn, Tight-fill pack	36–37	16.3–16.7
Peas:			
Green, unshelled	Bushel	28–30	12.7–13.6
Dry	...do	60	27.2
Peppers, green	...do	25–30	11.3–13.6
Do	1½ bu carton	28	12.7
Perilla seed	Bushel	37–40	16.8–18.1
Pineapples	Carton	40	18.1
Plums and prunes:	Ctn & lugs	28	12.7
Do	½-bu. basket	30	13.6
Popcorn:			
On ear	Bushel	[10] 70	31.8
Shelled	...do	56	25.4
Poppy seed	...do	46	20.9
Potatoes	Bushel	60	27.2
Do	Barrel	165	74.8
Do	Box	50	22.7
Do	...do	100	45.4
Quinces	Bushel	48	21.8
Rapeseed	...do	50–60	22.7–27.2
Raspberries	½-pint baskets	6	2.7
Redtop seed	Bushel	50–60	22.7–27.2
Refiners' syrup	Gallon	11.45	5.2
Rice:			
Rough	Bushel	45	20.4
Bag		100	45.4
Do	Barrel	162	73.5
Milled	Pocket or bag	100	45.4
Rosin	Drum, net	520	236
Rutabagas	Bushel	56	25.4
Rye	...do	56	25.4
Sesame seed	...do	46	20.9
Shallots	Crate (4–7 doz. bunches)	20–35	9.1–15.9
Sorgo:			
Seed	Bushel	50	22.7
Syrup	Gallon	11.55	5.2
Sorghum grain [19]	Bushel	56	25.4
Soybeans	...do	60	27.2
Soybean oil	Gallon	[7] 7.7	3.5
Spelt	Bushel	40	18.1
Spinach	...do	18–20	8.2–9.1
Strawberries	24-qt. crate	36	16.3
Do	12-pt. crate	9–11	4.1–5.0
Sudangrass seed	Bushel	40	18.1
Sugarcane:			
Syrup (sulfured or unsulfured)	Gallon	11.45	5.2
Sunflower seed	Bushel	24–32	10.9–14.5
Sweetpotatoes	...do	[20] 55	24.9
Do	Crate	50	22.7
Tangerines:			
Florida	Box	95	43.1
Arizona	Box	75	34.0
California	Box	75	34.0

See footnotes on page ix.

WEIGHTS AND MEASURES—Continued

Commodity	Unit [1]	Approximate net weight	
		U.S.	Metric
		Pounds	*Kilograms*
Timothy seed	Bushel	45	20.4
Tobacco:			
Maryland	Hogshead	775	352
Flue-cured	.....do	950	431
Burley	.....do	975	442
Dark air-cured	.....do	1,150	522
Virginia fire-cured	.....do	1,350	612
Kentucky and Tennessee fire-cured	.....do	1,500	680
Cigar-leaf	Case	250–365	113–166
Do	Bale	150–175	68.0–79.4
Tomatoes	Crate	60	27.2
Do	Lug box	32	14.5
Do	2-layer flat	21	9.5
Tomatoes, hot-house	12-qt. basket	20	9.1
Tung oil	Gallon	[7] 7.8	3.5
Turnips:			
Without tops ..	Mesh sack	50	22.7
Bunched	Crate [6]	70–80	31.8–36.3
Turpentine	Gallon	7.23	3.3
Velvetbeans (hulled)	Bushel	60	27.2
Vetch seed	.....do	60	27.2
Walnuts	Sacks	50	22.7
Water 60° F	Gallon	8.33	3.8
Watermelons	Melons of average or medium size	25	11.3
Wheat	Bushel	60	27.2
Various commodities	Short ton	2,000	907
Do	Long ton	2,240	1,016
Do	Metric ton	2,204.6	1,000

See footnotes on page ix.

To Convert From Avoirdupois Pounds

To	Multiply by
Kilograms	0.45359237
Metric tons	0.00045359237

Conversion Factors

1 Metric ton=2,204.622 pounds
1 Kilogram=2.2046 pounds
1 Acre=0.4047 hectares
1 Hectare=2.47 acres
1 Square mile=640 acres=259 hectares
1 Gallon=3.7853 liters

CONVERSION FACTORS

Commodity	Unit	Approximate equivalent
Apples	1 pound dried	7 pounds fresh; beginning 1943, 8 pounds fresh
Do	1 pound chops	5 pounds fresh
Do	1 case canned [21]	1.4 bushels fresh
Applesauce	...do [21]	1.2 bushels fresh
Apricots	1 pound dried	6 pounds fresh
Barley flour	100 pounds	4.59 bushels barley
Beans, lima	1 pound shelled	2 pounds unshelled
Beans, snap or wax	1 case canned [22]	0.008 ton fresh
Buckwheat flour	100 pounds	3.47 bushels buckwheat
Calves	1 pound live weight	0.611 pound dressed weight (1999 average)
Cattle	...do	0.607 pound dressed weight (1999 average)
Cane syrup	1 gallon	5 pounds sugar
Cherries, tart	1 case canned [21]	0.023 ton fresh
Chickens	1 pound live weight	0.72 pound ready-to-cook weight
Corn, shelled	1 bushel (56 lbs.)	2 bushels (70 pounds) of husked ear corn
Corn, sweet	1 case canned [22]	0.030 ton fresh
Cornmeal:		
Degermed	100 pounds	3.16 bushels corn, beginning 1946
Nondegermed	...do	2 bushels corn, beginning 1946
Cotton	1 pound ginned	3.26 pounds seed cotton, including trash [23]
Cottonseed meal	1 pound	2.10 pounds cottonseed
Cottonseed oil	...do	5.88 pounds cottonseed
Dairy products:		
Butter	...do	21.1 pounds milk
Cheese	...do	10 pounds milk
Condensed milk, whole	...do	2.3 pounds milk
Dry cream	...do	19 pounds milk
Dry milk, whole	...do	7.6 pounds milk
Evaporated milk, whole	...do	2.14 pounds milk
Malted milk	...do	2.6 pounds milk
Nonfat dry milk	...do	11 pounds liquid skim milk
Ice cream [24]	1 gallon	15 pounds milk
Ice cream [24] (eliminating fat from butter and concentrated milk).	...do	12 pounds milk
Eggs	1 case	47 pounds
Eggs, shell	...do	41.2 pounds frozen or liquid whole eggs
Do	...do	10.3 pounds dried whole eggs
Figs	1 pound dried	3 pounds fresh in California; 4 pounds fresh elsewhere
Flaxseed	1 bushel	About 2½ gallons oil
Grapefruit, Florida	1 case canned juice [22]	0.64 box fresh fruit
Hogs	1 pound live weight	0.737 pound dressed weight, excluding lard (1999 average)
Linseed meal	1 pound	1.51 pounds flaxseed
Linseed oil	...do	2.77 pounds flaxseed
Malt	1 bushel (34 lbs.)	1 bushel barley (48 lbs.)
Maple syrup	1 gallon	8 pounds maple sugar
Nuts:		
Almonds, imported	1 pound shelled	3½ pounds unshelled
Almonds, California	...do	2.22 pounds unshelled through 1949; 2 pounds thereafter
Brazil	...do	2 pounds unshelled
Cashews	...do	4.55 pounds unshelled
Chestnuts	...do	1.19 pounds unshelled
Filberts	...do	2.22 pounds unshelled through 1949; 2.5 pounds thereafter
Pecans:		
Seedling	...do	2.78 pounds unshelled
Improved	...do	2.50 pounds unshelled
Pignolias	...do	1.3 pounds unshelled
Pistachios	...do	2 pounds unshelled
Walnuts:		
Black	...do	5.88 pounds unshelled
Persian (English)	...do	2.67 pounds unshelled
Oatmeal	100 pounds	7.6 bushels oats, beginning 1943
Oranges, Florida	1 case canned juice [22]	0.53 box fresh
Peaches, California, freestone	1 pound dried	5⅓ pounds fresh through 1918; 6 pounds fresh for 1919–28; and 6½ pounds fresh from 1929 to date
Peaches, California, clingstone	...do	7½ pounds fresh
Peaches, clingstone	1 case canned [21]	1 bushel fresh
Do	...do	0.0230 ton fresh
Peanuts	1 pound shelled	1½ pounds unshelled
Pears	1 pound dried	6½ pounds fresh
Pears, Bartlett	1 case canned [22]	1.1 bushels fresh
Do	...do	0.026 ton fresh

See footnotes on page ix.

CONVERSION FACTORS—Continued

Commodity	Unit	Approximate equivalent
Peas, green	1 pound shelled	2½ pounds unshelled
Do	1 case canned [22]	0.009 ton fresh (shelled)
Prunes	1 pound dried	2.7 pounds fresh in California; 3 to 4 pounds fresh elsewhere
Raisins	1 pound	4.3 pounds fresh grapes
Rice, milled (excluding brewers)	100 pounds	152 pounds rough or unhulled rice
Rye flour	.....do	2.23 bushels rye, beginning 1947
Sheep and lambs	1 pound live weight	0.504 pound dressed weight (1999 average)
Soybean meal	1 pound	1.27 pounds soybeans
Soybean oil	.....do	5.49 pounds soybeans
Sugar	1 ton raw	0.9346 ton refined
Tobacco	1 pound farm-sales weight	Various weights of stemmed and unstemmed, according to aging and the type of tobacco. (See circular 435, U.S. Dept. of Agr.)
Tomatoes	1 case canned [22]	0.018 ton fresh
Turkeys	1 pound live weight	0.80 pound ready-to-cook weight
Wheat flour	100 pounds	2.30 bushels wheat [25]
Wool, domestic apparel shorn	1 pound greasy	0.48 pounds scoured
Wool, domestic apparel pulled	.....do	0.73 pound scoured

[1] Standard bushel used in the United States contains 2,150.42 cubic inches; the gallon, 231 cubic inches; the cranberry barrel, 5,826 cubic inches; and the standard fruit and vegetable barrel, 7,056 cubic inches. Such large-sized products as apples and potatoes sometimes are sold on the basis of a heaped bushel, which would exceed somewhat the 2,150.42 cubic inches of a bushel basket level full. This also applies to such products as sweetpotatoes, peaches, green beans, green peas, spinach, etc.

[2] Approximate inside dimensions, 4⅝ by 12½ by 16⅛ inches.

[3] Approximate inside dimensions, 4½ by 16 by 16⅛ inches.

[4] Approximate dimensions, 4½ by 13½ by 16⅛ inches.

[5] Approximate inside dimensions, 13 by 12 by 32 inches.

[6] Approximate inside dimensions, 13 by 18 by 21⅝ inches.

[7] This is the weight commonly used in trade practices, the actual weight varying according to temperature conditions.

[8] Approximate inside dimensions, 9¾ by 16 by 20 inches.

[9] Approximate inside dimensions, 4⅛ by 11½ by 14 inches.

[10] The standard weight of 70 pounds is usually recognized as being about 2 measured bushels of corn, husked, on the ear, because it required 70 pounds to yield 1 bushel, or 56 pounds, of shelled corn.

[11] For statistical purposes the bale of cotton is 500 pounds or 480 pounds net weight. Prior to Aug. 1, 1946, the net weight was estimated at 478 pounds. Actual bale weights vary considerably, and the customary average weights of bales of foreign cotton differ from that of the American square bale.

[12] This is the average weight of cottonseed, although the legal weight in some States varies from this figure of 32 pounds.

[13] Approximate inside dimensions, 9¼ by 10½ by 15 inches.

[14] Approximate inside dimensions, 1¾ by 11 by 16⅛ inches.

[15] Approximate inside dimensions, 11½ by 11½ by 24 inches.

[16] Beginning with the 1993-94 season, net weights for California Desert Valley and Arizona grapefruit were increased from 64 to 67 pounds, equal to the California other area net weight, making a 67 pound net weight apply to all of California.

[17] Approximate inside dimensions, 4¾ by 16 by 16⅛ inches.

[18] Approximate inside dimensions, 9⅞ by 13 by 25 inches.6 by 16 by 16⅛ inches.

[19] Includes both sorghum grain (kafir, milo, hegari, etc.) and sweet sorghum varieties.

[20] This average of 55 pounds indicates the usual weight of sweetpotatoes when harvested. Much weight is lost in curing or drying and the net weight when sold in terminal markets may be below 55 pounds.

[21] Case of 24 No. 2½ cans.

[22] Case of 24 No. 303 cans.

[23] Varies widely by method of harvesting.

[24] The milk equivalent of ice cream per gallon is 15 pounds. Reports from plants indicate about 81 percent of the butterfat in ice cream is from milk and cream, the remainder being from butter and concentrated milk. Thus the milk equivalent of the milk and cream in a gallon of ice cream is about 12 pounds.

[25] This is equivalent to 4.51 bushels of wheat per barrel (196 pounds) of flour and has been used in conversions, beginning July 1, 1957. Because of changes in milling processes, the following factors per barrel of flour have been used for earlier periods: 1790–1879, 5 bushels; 1880–1908, 4.75 bushels, 1909–17, 4.7 bushels; 1918 and 1919, 4.5 bushels; 1920, 4.6 bushels; 1921–44, 4.7 bushels; July 1944–Feb. 1946, 4.57 bushels; March 1946–Oct. 1946, average was about 4.31 bushels; and Nov. 1946–June 1957, 4.57 bushels.