

Withdrawn NIST Technical Series Publication

Warning Notice

The attached publication has been withdrawn (archived), and is provided solely for historical purposes. It may have been superseded by another publication (indicated below).

Withdrawn Publication

Series/Number	NBS Miscellaneous Publication (MP) 39-1
Title	Household Weights and Measures
Publication Date(s)	1920
Withdrawal Date	1923
Withdrawal Note	Superceded by 1923 edition

Superseding Publication(s) *(if applicable)*

The attached publication has been **superseded by** the following publication(s):

Series/Number	NBS Miscellaneous Publication (MP) 39-2
Title	Household Weights and Measures
Author(s)	
Publication Date(s)	1923
URL/DOI	https://doi.org/10.6028/NBS.MP.39-2

Additional Information *(if applicable)*

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Latest revision of the attached publication	
Related Information	
Withdrawal Announcement Link	

Cement, pipe, loose
 Circular of pine and oak
 15 to 30

Earth (common loam):
 Dry, loose 72 to 80

Moist, moderately packed 90 to 100
 Soft mud, packed 110 to 120

Masonry:
 Brickwork 100 to 140

Roughly scabbled mortar rubble 140 to 150
 Mortar, hardened 103

Woods:
 Fir (balsam) 2,170
 Hemlock 2,330 to 2,580
 Maple 3,250 to 3,920
 Oak 3,080 to 4,670
 Pine (American white) 1,830 to 2,580
 Pine (yellow) 1,920 to 3,080
 Poplar 1,830 to 2,580

The wood is supposed to be seasoned and of average dryness.

Common Rules of Measurement.

Rectangle Area = length × width.
 Solid with rectangular sides Volume = length × width × height.

Circle { Circumference = 3.1416 × diameter.
 Area = 0.7854 × diameter × diameter.

Cylinder { Area (exclusive of that of ends) = 3.1416 × diameter × height.
 Volume = 0.7854 × diameter × diameter × height.

(OVER)



MISCELLANEOUS PUBLICATIONS—NO. 39

HOUSEHOLD WEIGHTS AND MEASURES

The object of this card is to present in convenient form the weights and measures tables most useful for household¹ purposes.

In addition to the capacity measures illustrated, every kitchen should be provided with a good household weights and measures test set. This will be found indispensable in checking the amounts of commodities purchased and very useful for a variety of other purposes. A complete set comprises a weighing scale of from 10 to 30 pounds capacity or more graduated to 1 ounce or less, a set of liquid measures, a yard measure or a tape 3 or 6 feet in length, and, perhaps, a set of dry measures. These pieces should be of simple but rugged construction and of satisfactory accuracy and should, whenever possible, be tested by and bear the seal of a weights and measures official.

Common Kitchen Measures.

EQUIVALENTS OF CAPACITY.

(All measures level full.)

- 3 teaspoons = 1 tablespoon.
 $\frac{1}{2}$ fluid ounce = 1 tablespoon.
 16 tablespoons = 1 cup.
 2 gills = 1 cup.
 $\frac{1}{2}$ liquid pint = 1 cup.
 8 fluid ounces = 1 cup.
 1 liquid pint = 2 cups.
 16 fluid ounces = 2 cups.



Liquid Measure.

- 4 fluid ounces = 1 gill.
 4 gills = 1 pint.
 2 pints = 1 quart.
 4 quarts = 1 gallon (231 cubic inches).
 $3\frac{1}{2}$ gallons = 1 barrel.
 2 barrels = 1 hoghead.

Dry Measure.

(For fruits, vegetables, and other dry commodities.)

- 2 pints = 1 quart.
 8 quarts = 1 peck.
 4 pecks = 1 bushel (2150.42 cubic inches).
 105 quarts = 1 barrel (7056 cubic inches).

The pint and quart dry measures are about 16 per cent larger than the pint and quart liquid measures.

Avoirdupois Weight.

- $27\frac{1}{2}$ grains = 1 dram.
 16 drams = 1 ounce.
 16 ounces = 1 pound.
 4 quarters = 1 hundredweight. { Short hundredweight = 100 pounds.
 { Long hundredweight = 112 pounds.
 20 hundredweight = 1 ton. { Short ton = 2,000 pounds.
 { Long ton = 2,240 pounds.

Approximate Weights of Some Common Dry Commodities.

Pounds per bushel.	Pounds per bushel.	Ice:	Rice: 1 cup = $\frac{1}{2}$ pound.
Apples 48	Peaches 48	1 cubic foot = 57.2 pounds.	Cornmeal: 1 cup = 5 ounces.
Beans 60	Peanuts 22	30 cubic inches = 1 pound.	Raisins (stemmed):
Beets 60	Pears 58	Sugar, granulated:	1 cup = 6 ounces.
Carrots 50	Peas (dried) 60	1 cup = $\frac{1}{2}$ pound.	Currants (cleaned):
Cranberries. 32	Peas (green, unshelled) ... 56	Butter: 1 cup = $\frac{1}{2}$ pound.	1 cup = 6 ounces.
Cucumbers. 48	Potatoes (white) 60	Lard: 1 cup = $\frac{1}{2}$ pound.	Bread crumbs (stale):
Onions 57	Potatoes (sweet) 54	Flour: 1 cup = $\frac{1}{2}$ pound.	1 cup = 2 ounces.
Parsnips .. 50	Tomatoes 56		Chopped meat
	Turnips 55		(packed): 1 cup = $\frac{1}{2}$ pound.

These weights are approximate only and should therefore not be used in determining whether correct measure is given or received.

¹ Circular of the Bureau of Standards No. 55, entitled "Measurements for the Household," contains in popular form a large amount of information which is very useful about the home. In addition to discussing weighing and measuring as done in the up-to-date kitchen, this circular treats of the measurement and economical use of heat, light, gas, electricity, water, time, etc. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 15 cents each.