



Extension Extra

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COLLEGE OF AGRICULTURE & BIOLOGICAL SCIENCES / SOUTH DAKOTA STATE UNIVERSITY / USDA

TEST PLOT CONVERSION TABLES

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ABBREVIATIONS

mile = mi	liter = l	quart = qt	gram = g
foot = ft	milliliter = ml	pint = pt	bushel = bu
inch = in	millimeter = mm	gallon = gal	pounds = lb
yard = yd	cubic centimeter = cc	kilogram = kg	ounce = oz
acre = A	meter = m	kilometer = km	ton = T
rod = rd	centimeter = cm	Fahrenheit = F	metric ton = MT
hectare = ha		Celsius = C	

CAPACITY MEASURE, LIQUID

Fluid ounce = 2 tablespoons	Cup = 8 fl ounces	Quart = 32 fl ounce
Fluid ounce = 6 teaspoons	Cup = 0.5 pint	Quart = 2 pints
Fluid ounce = 29.57 milliliters	Cup = 236.5 milliliters	Quart = 57.75 cu in
Fluid ounce = 1.805 cu in	Cup = 0.25 quart	Quart = 946 milliliters
Fluid ounce = 29.57 cubic cm	Cup = 16 tablespoons	Quart = 0.25 gallons
	Cup = 48 tablespoons	Quart = 0.94 liters
Teaspoon = 5 milliliters	Pint = 2 cups	Gallon = 128 fl ounce
Teaspoon = 0.17 fl ounce	Pint = 16 fl ounce	Gallon = 231 cu in
Teaspoon = 60 drops	Pint = 473 milliliters	Gallon = 3,785 milliliters
Tablespoon = 3 teaspoons	Pint = 28.87 cu in	Gallon = 4 quarts
Tablespoon = 15 milliliters	Pint = 0.125 gallon	Gallon = 0.1337 cubic feet
Tablespoon = 0.5 fl ounce	Pint = 0.473 liters	Gallon = 16 cups
Cu ft = 29.22 liq qt	Pint = 32 tablespoons	Liter = 2.1 pints (liq.)
		Liter = 1.06 quarts (liq.)
		Liter = 1,000 cu cm
		Liter = 1,000 milliliter

CAPACITY MEASURE, DRY

Quart = 2 pints	Bushel = 32 quarts
Quart = 67.20 cu in	Bushel = 4 pecks
Quart = 1.1012 liters	Bushel = 1.244 cu ft
Liter = 0.9081 dry quart	Bushel = 2150.42 cu in
Liter = 0.028378 bushel	Bushel = 35.238 liters

LINEAR MEASURE

inch = 2.54 centimeter	mile = 320 rods
yard = 3 feet	mile = 1,760 yards
rod = 16.5 feet	mile = 5,280 feet
rod = 5.5 yards	mile = 1.609 kilometer
rod = 5.03 meters	kilometer = 0.6214 mile
meter = 39.37 inches	
meter = 1.0936 yards	

GENERAL CONVERSIONS

1 kilogram/hectare = .89 lbs/acre	1 lb = 453.6 grams
1 lb/acre = 1.12 kilogram/hectare	1 lb = 16 ounces
1 kilogram = 1000 grams = 2.2 lbs	1 ounce = 28.35 grams
1 gram = 1000 milligrams = .035 oz	1 pt of water weighs approximately 1 lb
1 milliliter = 1 cubic centimeter	1 gallon of water weighs approximately 8.34 lbs
1 milliliter or cubic centimeter = .034 fluid ounce	.1 percent = 1000 ppm = 1000 milligrams/liter
1 milliliter or cubic centimeter of water	.01 percent = 100 ppm = 100 milligrams/liter
weighs approximately 1 gram	.001 percent = 10 ppm = 10 milligrams/liter
1 liter of water weighs 1 kilogram	.0001 percent = 1 ppm = 1 milligram/liter

CUBIC MEASURE

Cu ft = 1,728 cu in	Bushel = 2150.4 cu in	Peck = 537.6 cu in
Cu ft = 0.037 cu yd	Bushel = 1.24 cu ft	Ounce (liq) = 1.805 cu in
Cu ft = 7.48 gallons	Bushel = approx. 1/20 cu yd	Pint (liq) = 28.87 cu in
Cu ft = 59.84 pints (liq)	Bushel = 35.24 liters	Pint (liq) = 473 cu cm
Cu ft = 29.92 quarts (liq)	Liter = 1,000 cu cm	Quart (dry) = 67.2 cu in
Cu ft = 25.71 quarts (dry)	Liter = 0.035 cu ft	Quart (liq) = 57.7 cu in
Cu ft = 0.804 bushels	Liter = 61.02 cu in	Quart (liq) = 946 cu cm
Cu ft = 28.32 liters	Gallon = 269 cu in (dry)	Lb water = 0.016 cu ft
Cu yd = 27 cu ft	Gallon = 3785 cu cm	Lb water = 27.68 cu in
Cu yd = 46,656 cu in	Gallon = 0.134 cu ft	
Cu yd = 202 gallons	Gallon = 231 cu in (liq)	
Cu yd = 1,616 pints (liq)		
Cu yd = 808 quarts (liq)		
Cu yd = 21.71 bushels		

SQUARE MEASURE

Square foot = 144 square inches	Acre = 43,560 square feet
Square yard = 9 square feet	Acre = 4,840 square yards
Square rod = 272.25 square feet	Acre = 160 square rods
Square rod = 30.25 square yards	Acre = 0.404687 hectare
Square mile = 640 acres	Acre = area 208.7 feet square
Square mile = 259 hectares	Acre = area 16.5 feet x 2640 feet or 1/2 mile
	Acre = 1 rod x 1/2 mile
	Hectare = 2.47 acres

CONVERSION FACTORS

<u>LENGTH</u>			<u>AREA</u>		
<u>Known Value</u>	<u>Conversion Factor</u>	<u>Desired Value</u>	<u>Known Value</u>	<u>Conversion Factor</u>	<u>Desired Value</u>
in	25	mm	in ²	6.5	cm ²
ft	30	cm	ft ²	0.09	m ²
yd	0.9	m	yd ²	.8	m ²
mi	1.6	km	mi ²	2.6	km ²
km	.6	mi	cm ²	0.16	in ²
			m ²	1.2	yd ²
			km ²	0.4	mi ²

<u>LIQUID</u>			<u>WEIGHT</u>		
<u>Known Value</u>	<u>Conversion Factor</u>	<u>Desired Value</u>	<u>Known Value</u>	<u>Conversion Factor</u>	<u>Desired Value</u>
oz	30	ml	oz	28	g
pt	0.47	l	lb	0.45	kg
qt	0.95	l	T	0.9	MT
gal	3.8	l	g	0.035	oz
l	2.1	pt	kg	2.2	lb
l	1.06	qt			
l	0.26	gal			

<u>TEMPERATURE</u>			<u>GENERAL</u>		
<u>Known Value</u>	<u>Conversion Factor</u>	<u>Desired Value</u>	<u>Known Value</u>	<u>Conversion Factor</u>	<u>Desired Value</u>
(°F. -32)	0.556	°C	Mi per hour	88	Ft per minute
°C	1.8	(+32 °F.)	Mi per hour	1.467	Ft per second

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