

Appendix B

Metric Conversion Factors

Imperial Units	Conversion Factor	Metric Units
LENGTH		
inches	2.5	centimetres (cm)
feet	30	centimetres (cm)
feet	0.3	metres (m)
yards	0.9	metres (m)
miles	1.6	kilometres (km)
AREA		
square inches	6.5	square centimetres (cm ²)
square feet	0.09	square metres (m ²)
acres	0.40	hectares (ha)
VOLUME		
cubic inches	16	cubic centimetres (cm ³)
cubic feet	0.03	cubic metres (m ³)
cubic yards	0.8	cubic metres (m ³)
fluid ounces	28	millilitres (mL)
pints	0.57	litres (L)
quarts	1.1	litres (L)
gallons (Imperial)	4.5	litres (L)
gallons (US)	3.75	litres (L)
bushels	0.36	hectolitres (hL)
WEIGHT		
ounces	28	grams (g)
pounds	0.45	kilograms (kg)
short tons	0.9	tonnes (t)
TEMPERATURE		
degrees Fahrenheit (F - 32)	0.56	degrees Celsius (°C)
POWER		
horsepower	750	watts (w)
	0.75	kilowatts (kw)

Imperial Units	Conversion Factor	Metric Units
oz./acre	70	g/ha
lb./acre	1.12	kg/ha
bu./acre	0.9	hL/ha
tons/acre	2.24	t/ha
fl. oz./acre	70	mL/ha
pt./acre	1.4	L/ha
qt./acre	2.8	L/ha
gal./acre	11.2	L/ha
gal./acre (US)	9.35	L/ha
plants/acre	2.47	plants/ha
oz./gal.	6.2	mL/L
lb./gal.	0.1	kg/L
oz./sq.ft.	305	g/m ²
lb./sq.ft.	4.9	kg/m ²
oz./ft.row	93	g/m row
lb./ft.row	1.5	kg/m row
ft./sec.	0.3	m/s
m.p.h.	1.6	km/h
p.s.i.	6.9	kPa
<p>To convert from imperial to metric, multiply by the conversion factor. For example: 10 inches x 2.5 = 25 centimetres</p> <p>To convert from metric to imperial, divide by the conversion factor. For example: 25 centimetres ÷ 2.5 = 10 inches</p> <p>Imperial Conversions:</p> <p style="text-align: center;"> lb/acre x 0.0033 = oz/yd² gal/acre x 0.033 = oz/yd² </p>		

Useful Measurements			
1 Imperial gallon	= 4 quarts	1 mile	= 5,280 feet
	= 8 pints		= 1,760 yards
	= 160 fluid ounces	1 yard	= 3 feet
	= 10 pounds of water		= 36 inches
	= approx. 1.2 US gallons	1 foot	= 12 inches
1 U.S. gallon	= 0.8345 or approx. 5/6 Imperial gallon	1 acre	= approx. 209 by 209 feet or 43,560 square feet.
	= 8.3 pounds		
1 Imperial pint	= 20 fluid ounces = 570 mL	1 square yard	= 9 square feet
1 U.S. pint	= 16 fluid ounces = 475 mL	1 square foot	= 144 square inches
1 pound	= 16 ounces	1 mile an hour	= 88 feet a minute
1 tablespoon	= 3 teaspoons = 14 mL	1 cubic yd	= 27 cubic feet
2 tablespoons	= 1 fluid ounce = 28 mL		
1 pound in 100,000 gallons of water	= 1 ppm (part per million)	Litres per hectare x 0.4	= litres per acre
		Kilograms per hectare x 0.4	= kilograms per acre

Calculating Parts Per Million

Parts Per Million		
1 per cent	=	10,000 parts per million
Imperial:		
1 fl. oz./gallon	=	6250 ppm
1 gallon in		
1,000,000 gallons of water	=	1ppm
1 litre in 1,000,000 litres of water	=	1ppm = 1 mL/1,000 L
Metric:		
1 mg/litre (water)	=	1 ppm
1 g/litre (water)	=	1000 ppm
1 mL/litre	=	1000 ppm

Metric Units for Farm Sprayers

<i>Tank Capacities</i>				<i>Pressures</i>	
Imp. gal	litres (L)	US gal.	litres (L)	pounds per square inch (psi)	kilopascals (kPa)
100	455	100	379	10	70
200	910	200	758	15	100
250	1138	250	948	20	140
300	1365	300	1137	25	175
400	1820	400	1516	30	200
500	2275	500	1895	35	240
600	2730	600	2274	40	275
800	3640	800	3032	45	310
1000	4550	1000	3790	50	345

The Metric System

LINEAR MEASURES

10 millimetres (mm)	=	1 centimetre
100 centimetres	=	1 metre (m)
1000 metres	=	1 kilometre

SQUARE MEASURES (AREA)

100 m X 100 m	=	10,000 m ²
	=	hectare (ha)
100 ha	=	1 square kilometre (km ²)

CUBIC MEASURES (VOLUME)

Dry Measure		
1000 cubic millilitres (mm ³)	=	1 cubic metre (m ³)
1,000,000 cm ³	=	1 cubic metre (m ³)
Liquid Measure		
1000 millilitres (mL)	=	1 litre (L)
100 L	=	1 hectolitre (hL)

WEIGHT-VOLUME EQUIVALENTS (FOR WATER)

(1.00 kg) 1000 grams	=	1 litre (1.00 L)
(0.50 kg) 500 g	=	500 mL (0.50 L)
(0.10 kg) 100 g	=	100 mL (0.10 L)
(0.01 kg) 10 g	=	10 mL (0.01 L)
(0.001 kg) 1 g	=	1 mL (0.001 L)

WEIGHT MEASURES

1000 milligrams (mg)	=	1 gram (g)
1000 g	=	1 kilogram (kg)
1000 kg	=	1 tonne (t)
1 mg/kg	=	1 part per million (ppm)

DRY – LIQUID EQUIVALENTS

1 cm ³	=	mL
1 m ³	=	1000 L