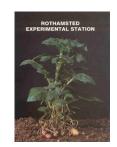
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# Rothamsted Experimental Station Report for 1983



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# **Conversion Factors**

#### **Rothamsted Research**

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# **CONVERSION FACTORS**

# Factors for the Conversion of Imperial to Metric Units

1 inch (in.)	= $2.540$ centimetres (cm)		
1 foot (ft) (=12 in.)	=30·48 cm		
1 yard (yd) (=3 ft)	= 0.9144  metre (m)		
1 square yard (yd2)	$= 0.8361 \text{ m}^2$		
1 acre (ac) (=4840 yd <sup>2</sup> )	= 0.4047 hectare (ha)		
1 ounce (oz)	=28.35 grams (g)		
1 pound (lb)	= 0.4536 kilogram (kg)		
1 hundredweight (cwt) (=112 lb)=50·80 kg			
1 ton (=2240 lb)	=1016 kg= $1.016$ metric tons (tonnes) (t)		
1 pint	= 0.5682  litre (l)		
1 gallon (gal) (=8 pints)	= 4.546 litres		
1 fluid ounce=1/20 pint	= 0.02841  litre = 28.41  ml		
1 cubic foot	=28.32 litres		

To convert	Multiply by	
oz ac-1 to g ha-1	70.06	
lb ac <sup>-1</sup> to kg ha <sup>-1</sup>	1.121	
cwt ac-1 to kg ha-1	125.5	
cwt ac-1 to t ha-1	0.1255	
ton ac-1 to kg ha-1	2511	
ton ac-1 to t ha-1	2.511	
gal ac <sup>-1</sup> to 1 ha <sup>-1</sup>	11.233	

## The following factors are accurate to about 2 parts in 100:

#### In general reading of the text there will be no great inaccuracy in regarding:

$$1 \text{ lb} = 0.5 \text{ kg}$$
  
 $1 \text{ lb ac}^{-1} = 1 \text{ kg ha}^{-1}$ 

#### **Temperatures**

To convert °F into °C subtract 32 and multiply by 5/9 (0.556) To convert °C into °F multiply by 9/5 (1.8) and add 32

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### CONVERSION FACTORS

# Factors for the Conversion of Metric to Imperial Units

1 centimetre (cm) = 0.3937 inch (in.)=0.03281 ft = 1.094 yards (yd) 1 metre (m) 1 square metre (m<sup>2</sup>) = 1.196 square yards (yd<sup>2</sup>) 1 hectare (ha) = 2.471 acres (ac)= 0.03527 ounce (oz) 1 gram (g) 1 kilogram (kg) = 2.205 pounds (lb) 1 kg = 0.01968 hundredweight (cwt)= 0.0009842 ton 1 metric ton (tonne) (t) = 0.9842 ton

1 litre (l) = 0.9842 ton = 1.760 pints=0.2200 gallon (gal)

1 litre=1000 millilitres (ml) =35.20 fluid ounces=0.03531 cubic foot (ft<sup>3</sup>)

To convert	Multiply by	
g ha <sup>-1</sup> to oz ac <sup>-1</sup>	0.01427	
kg ha <sup>-1</sup> to lb ac <sup>-1</sup>	0.8921	
kg ha <sup>-1</sup> to cwt ac <sup>-1</sup>	0.007966	
t ha <sup>-1</sup> to cwt ac <sup>-1</sup>	7.966	
kg ha-1 to tons ac-1	0.0003983	
t ha <sup>-1</sup> to tons ac <sup>-1</sup>	0.3983	
$1 \text{ ha}^{-1} \text{ to gal ac}^{-1}$	0.08902	

#### Plant nutrients

Plant nutrients are best stated in terms of amounts of the elements (P, K, Na, Ca, Mg, S); the old 'oxide' terminology  $(P_2O_5, K_2O, Na_2O, CaO, MgO, SO_3)$  is still used in work involving fertilizers and liming since Regulations require statements of  $P_2O_5, K_2O$ , etc.

#### For quick conversions

(accurate to within 2%) the following factors may be used:

$2\frac{1}{3} \times P = P_2O_5$	$^{3}/_{2}\times P_{2}O_{5}=P$	
$1\frac{1}{5} \times K = K_2O$	$5\% \times K_2O = K$	
$1\frac{2}{5} \times \text{Ca} = \text{CaO}$	7/10×CaO=Ca	
$1\frac{2}{3} \times Mg = MgO$	$3/5 \times MgO = Mg$	

#### For accurate conversions:

To convert	Multiply by	To convert	Multiply by
P <sub>2</sub> O <sub>5</sub> to P	0.4364	P to P <sub>2</sub> O <sub>5</sub>	2.2915
K <sub>2</sub> O to K	0.8301	K to K <sub>2</sub> O	1.2047
CaO to Ca	0.7146	Ca to CaO	1.3994
MgO to Mg	0.6031	Mg to MgO	1.6581