

# Units of measurements

## 1. Conversion of Imperial units to metric units

### Length:

$$1 \text{ inch} = 25.4 \text{ mm}$$

$$1 \text{ foot} = 30.5 \text{ cm}$$

$$1 \text{ yard} = 0.91 \text{ m}$$

$$1 \text{ mile} = 1.61 \text{ km}$$

### Volume:

$$1 \text{ cu ft} = 0.028 \text{ cu m}$$

$$1 \text{ pint} = 0.57 \text{ L}$$

$$1 \text{ gallon} = 4.54 \text{ L}$$

$$1 \text{ bushell} = 36.4 \text{ L}$$

$$1 \text{ acre foot} = 1.23 \text{ Ml (megalitre)}$$

### Area:

$$1 \text{ acre} = 0.40 \text{ ha}$$

$$1 \text{ sq mile} = 2.59 \text{ sq km}$$

### Weight:

$$1 \text{ ounce} = 28.3 \text{ g}$$

$$1 \text{ pound} = 0.454 \text{ kg}$$

$$1 \text{ hundred weight} = 50.8 \text{ kg}$$

$$1 \text{ long ton} = 1017 \text{ kg (2240 lb)}$$

### Energy:

$$1 \text{ calorie} = 4.19 \text{ J}$$

### Density:

$$1 \text{ lb/ft}^3 = 0.063 \text{ kg/m}^3$$

### Rate:

$$1 \text{ gallon/acre} = 11.23 \text{ l/ha}$$

$$1 \text{ pound/acre} = 1.12 \text{ kg/ha}$$

$$1 \text{ gallon/ton} = 4.17 \text{ l/tonne}$$

### Pressure:

$$1 \text{ pound/sq in (psi)} = 1.45 \text{ kPa (kilopascals)}$$

### Yield:

$$1 \text{ lb/ac} = 1.12 \text{ kg/ha}$$

### Temperature:

$$1^\circ\text{F} = ((9/5) * \text{C}) + 32 - \text{conversion}$$

$$1^\circ\text{F} = 0.56^\circ\text{C}$$

$$50^\circ\text{F} = 10.0^\circ\text{C}$$

$$60^\circ\text{F} = 15.6^\circ\text{C}$$

$$70^\circ\text{F} = 21.1^\circ\text{C}$$

$$80^\circ\text{F} = 26.7^\circ\text{C}$$

$$90^\circ\text{F} = 32.2^\circ\text{C}$$

$$100^\circ\text{F} = 37.8^\circ\text{C}$$

$$110^\circ\text{F} = 43.3^\circ\text{C}$$

## 2. Conversion of US units to metric units

Volume:

1 gallon = 3.79 L

1 bushell = 35.2 L

Weight:

1 hundredweight = 45.4 kg

1 short ton = 907 kg (2000 lb)

Milk prices:

\$10/hundredweight = 22.0 c/L

Forage maize yields @ 30% DM:

25 ton fresh weight/acre =  
16.8 t DM/ha

Food energy:

1% unit TDN = 0.185 MJ/kg DM of  
metabolisable energy

30% TDN = 3.7 MJ/kg DM of ME

40% TDN = 5.5 MJ/kg DM of ME

50% TDN = 6.4 MJ/kg DM of ME

60% TDN = 7.4 MJ/kg DM of ME

70% TDN = 8.3 MJ/kg DM of ME

80% TDN = 9.2 MJ/kg DM of ME

1 MCal/lb = 9.22 MJ/kg

1 MCal/kg = 4.19 MJ/kg