

Measuring Bulk Density of Compost

1. Place a 20 L bucket* on a 50-100 kg scale. Zero the scale.
2. Fill a 20 L bucket 1/3 full with a representative sample of the composting material.
3. Drop the bucket containing the compost from a height of approximately 30 cm height five times to allow the material to settle.
4. Add more compost material to fill the bucket to 2/3 full.
5. Drop the bucket containing the compost from a height of approximately 30 cm height ten times to allow the material to settle.
6. Fill the bucket to the 20L mark* with compost.
7. Drop the bucket containing the compost from a height of approximately 30 cm height ten times to allow the material to settle.
8. Fill the bucket to the 20L mark* with compost.
9. Weigh the bucket and compost on a 100 kg scale. Record the weight.
10. Calculate the bulk density by multiplying the weight of material in the bucket by 50,



Example:

$$\frac{14.5 \text{ kg}}{20 \text{ L}} = \frac{725 \text{ kg}}{1000 \text{ L}} = \frac{725 \text{ kg}}{1 \text{ m}^3} = 725 \text{ kg/m}^3$$

*Obtaining the 20 L volume in the bucket:

1. Place empty bucket on the scale. Zero the scale
2. Add 20 kg of water (1 kg of water is 1 L).
3. Mark the inside of the bucket at the 20 L mark



Recommended bulk density for composting is 500 to 700 kg/m³