

Pile Bulk Density and Free Air Space Worksheet

Pile Bulk Density

	Example				
Material measured					
1. Weight of bucket with material (lb)	20.5				
2. Weight of empty bucket	2.0				
3. Weight of material (line 1 – line 2)	18.5				
4. Convert to lb./yard (line 3 x 40)	740				

Pile Free Air Space

	Example				
Material measured					
1. Weight of bucket with material + water (lb)	46.5				
2. Weight of bucket with material	20.5				
3. Weight of water (line 1 – line 2)	26				
4. Convert to % free air space (line 3 x 2.4)	62 %				

Bulk Density Notes:

- 5 gallons of water weighs approx. 42 lbs.
- 6 yd/ton incoming yard debris yields about 2.5 yd/ton ground yard debris
- # lbs feedstock in a 5-gal bucket multiplied by 40, equals # lbs in a cubic yard (it's magic math!!)

Free Air Space Notes:

- Target free air space for compost piles = 60% or greater