



# REFERENCE: Measurements & Conversions for Gardeners

## Bulk Product Conversion

27 Cubic feet = 1 Cubic yard = 1 Ton Avg. Dry Weight  
Formula – Sq. ft. x deep divided by 324 = Cubic yards.

*Examples:*

100 x 2" divided by 324 = .62 Cubic yards

400 x 3" divided by 324 = 3.70 Cubic yards

*The price of bulk product is usually half the cost of bagged.*

## Coverage in Square Feet

1 Cubic Yard Covers:

|                            |                            |
|----------------------------|----------------------------|
| ½" deep covers 648 sq. ft. | 4" deep covers 81sq. ft.   |
| 1" deep covers 324 sq. ft. | 6" deep covers 54 sq. ft.  |
| 2" deep covers 162 sq. ft. | 8" deep covers 40 sq. ft.  |
| 3" deep covers 108 sq. ft. | 12" deep covers 27 sq. ft. |

## Bagged Product Conversion

One Cubic Foot = 7.48 Gallons

*Example: 20 Gal. Bag divided by 7.48 = 2.7 C.F.*

## Mulches and Mixes Coverage

| 3 cubic foot bag |             |              | 2 cubic foot bag |             |              |
|------------------|-------------|--------------|------------------|-------------|--------------|
| Depth of Product | 100 Sq. Ft. | 1000 Sq. Ft. | Dept of Product  | 100 Sq. Ft. | 1000 Sq. Ft. |
| 2"               | 6 bags      | 60 bags      | 2"               | 8 bags      | 80 bags      |
| 3"               | 9 bags      | 90 bags      | 3"               | 12 bags     | 120 bags     |
| 4"               | 11 bags     | 110 bags     | 4"               | 15 bags     | 150 bags     |

## NPK Analysis of Typical Organic Fertilizers

*N = Nitrogen, P = Phosphorus, K = Potassium.*

|                 |           |                 |                         |
|-----------------|-----------|-----------------|-------------------------|
| Alfalfa Meal    | (3-1-2)   | Fish Emulsion   | (5-2-2)                 |
| Bat Guano       | (10-3-1)  | Cattle Manure*  | (.6-.3-.4) (*Composted) |
| Blood Meal      | (6-7-0)   | Horse Manure*   | (.6-.6-.4) (*Composted) |
| Bone Meal       | (0-10-0)  | Poultry Manure* | (4-3-1.5) (*Composted)  |
| Cottonseed Meal | (6-2-1)   | Seaweed/Kelp    | (.6-.2-2)               |
| Feather Meal    | (12-.5-0) | Worm Castings   | (1-.1-.1)               |

*To lower soil pH one number apply one pound of horticultural sulfur per 1000 sq. ft.*

## Liquid Measurements

|   |   |
|---|---|
| One gallon = 4 Quarts/8 pints                       | One cup = 1/2 pint/8 ounces/16 tablespoons    |
| One gallon = 16 cups/128 ounces                     | 1/2 Cup = 4 ounces/8 tablespoons/24 teaspoons |
| One gallon = 256 tablespoons/768 teaspoons          | 1/4 Cup = 2 ounces/4 tablespoons/12 teaspoons |
| One quart = 2 pints/4 cups/32 ounces/64 tablespoons | 1 Tablespoon = 1/2 ounce/3 teaspoons          |
| One pint = 2 cups/16 ounces/32 tablespoons          |   |

**Grass Seed Application Rates**

| Type of Grass          | Rate per 1,000 Sq. Ft. | Rate per Acre  |
|------------------------|------------------------|----------------|
| Bermuda (hulled)       | 2 pounds               | 88 pounds      |
| Bermuda (unhulled)     | 3 pounds               | 132 pounds     |
| Fescue                 | 8-10 pounds            | 348-440 pounds |
| Rye (annual/perennial) | 6-8 pounds             | 264-352 pounds |

**Plant Spacing**

Plants per 100 Square Feet

Plants from 4-inch containers

| Spacing<br>Inches on center | Plants per<br>100 Sq. Ft. | Spacing<br>Inches on center | Plants per<br>100 Sq. Ft. |
|-----------------------------|---------------------------|-----------------------------|---------------------------|
| 4                           | 900                       | 18                          | 45                        |
| 6                           | 400                       | 24                          | 25                        |
| 8                           | 225                       | 30                          | 18                        |
| 10                          | 144                       | 36                          | 11                        |
| 12                          | 100                       | 48                          | 8                         |
| 16                          | 58                        | 72                          | 3                         |

Plants per 100 Square Feet in a Round Bed

Plants from 4-inch containers

| Diameter of<br>Circle | Total Square<br>Feet | Spacing<br>on 4' center | Spacing<br>on 6' center | Spacing<br>on 8' center | Spacing<br>on 10' center |
|-----------------------|----------------------|-------------------------|-------------------------|-------------------------|--------------------------|
| 8 ft                  | 50                   | 450                     | 200                     | 100                     | 70                       |
| 9 ft                  | 64                   | 600                     | 250                     | 125                     | 90                       |
| 10 ft                 | 79                   | 700                     | 300                     | 150                     | 100                      |
| 12 ft                 | 113                  | 1000                    | 450                     | 250                     | 150                      |
| 14 ft                 | 154                  | 1400                    | 600                     | 350                     | 200                      |
| 16 ft                 | 201                  | 1800                    | 800                     | 450                     | 300                      |
| 18 ft                 | 254                  | 2300                    | 1000                    | 570                     | 350                      |
| 20 ft                 | 314                  | 2800                    | 1250                    | 700                     | 450                      |
| 24 ft                 | 452                  | 4050                    | 1800                    | 1000                    | 850                      |
| 30 ft                 | 707                  | 6350                    | 2800                    | 1800                    | 1000                     |
| 36 ft                 | 1017                 | 9150                    | 4050                    | 2250                    | 1450                     |

**Spacing**

**Vines & Groundcovers**

Vines - Narrow Twining- 1 to 3 ft apart. Spreading- 4 to 6 ft apart

Groundcovers- up to 1-ft high; slow growers-- 1 to 1 ½ ft apart. Fast growers – 2 to 3 ft apart

**Shrubs**

Dwarf – 1 to 3 ft tall – 3 feet apart

Small – 3 to 5 ft tall – 4 feet apart

Medium – 6 to 9 ft tall – 6 feet apart

Large – 10 to 25 ft tall – 8 to 12 feet apart

**Trees**

Full size 30 to 100 ft tall – minimum 25 feet apart.

*The tree's drip line should not overhang the roofline.*