How Much Compost, Soil or Mulch Do I Need to Purchase?

by Daphne Richards

First let’s clarify the difference between the terms mulch and soil amendments.

**Mulch** is a covering on the surface of the soil. The best mulches are made from natural ingredients like bark chips, shredded tree trimmings, leaves, grass clippings, compost, hay or pine needles. Mulch protects the surface from getting a hard crust following a rain or sprinkler irrigation. It moderates soil temperatures and helps deter weed invasions. In time the mulch will decompose where it comes in contact with the underlying soil providing compost for the growing plant roots.

**Soil amendments** are worked down into the soil to improve the root zone of our plants. Compost makes the best soil amendment as it is already decomposed. Leaves, wood chips and other un-decomposed organic materials can be worked into the soil but will require time to decompose before the area can be planted, as they tend to tie up nitrogen as they begin to decompose.

Here are three ways to estimate how much mulch, topsoil or compost you need to purchase to cover a given area at a specified depth.

To determine how much mulch is needed for a specific area, measure the area to be covered and use one of the following formulas:

**Method #1**

\[
\text{Area to Cover} \times \frac{\text{Depth of Mulch or Soil Desired in inches}}{324} = \text{Cubic Yards of Mulch or Soil Required}
\]

**Method #2**

\[
\text{Area to Cover} \times \left(\frac{\text{Depth of Mulch or Soil Desired in inches}}{324}\right) = \text{Cubic Yards of Mulch or Soil Required}
\]

**Method #3**

<table>
<thead>
<tr>
<th>Area in Square Feet</th>
<th>Depth Required in inches</th>
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<tbody>
<tr>
<td></td>
<td>1 inch</td>
</tr>
<tr>
<td>50</td>
<td>4 cu. ft.</td>
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<tr>
<td>100</td>
<td>8 cu. ft.</td>
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<tr>
<td>500</td>
<td>1 1/2 yd.</td>
</tr>
<tr>
<td>1000</td>
<td>3 yd.</td>
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(Approximate Amount of Soil or Mulch Needed to Cover An Area)

For example:

To cover an area of 100 square feet with 3 inches of mulch:

100 square feet x 3 inches deep x 0.0031 = 0.93 cubic yards needed

Note:

If buying mulch in 1 cubic foot bags, multiply the cubic yards needed by 27 (there are 27 cubic feet in 1 cubic yard) to find the number of bags needed.