Potting Mixes for Container Gardens

Many gardeners buy bagged potting soils for their container gardens or house plants or to propagate seedlings, root cuttings, or grow tender ornamentals. For those gardeners who need large quantities of potting mixes or wish to modify a potting mix for their own needs, you can mix your own. You will still need to purchase the components of the mix, but if you have a clean surface to mix the components and a place to store the product, making your own potting mix can be very rewarding.

### Materials often used in potting mixes

<table>
<thead>
<tr>
<th>Material</th>
<th>Promotes drainage</th>
<th>Holds water</th>
<th>Adds weight</th>
<th>Adds nutrients</th>
<th>Mostly organic</th>
<th>Mostly inert</th>
<th>Acid</th>
<th>Neutral</th>
<th>Alkaline</th>
<th>Sterile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine bark mulch</td>
<td>XXX</td>
<td>X</td>
<td>0</td>
<td>X</td>
<td>XXX</td>
<td>0</td>
<td>XX</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Peat</td>
<td>0</td>
<td>XXX</td>
<td>0</td>
<td>X</td>
<td>XXX</td>
<td>0</td>
<td>XXX</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sand</td>
<td>XX</td>
<td>0</td>
<td>XXX</td>
<td>0</td>
<td>0</td>
<td>XXX</td>
<td>0</td>
<td>X</td>
<td>0</td>
<td>XX</td>
</tr>
<tr>
<td>Vermiculite</td>
<td>0</td>
<td>XXX</td>
<td>0</td>
<td>X</td>
<td>0</td>
<td>XXX</td>
<td>0</td>
<td>X</td>
<td>0</td>
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</tr>
<tr>
<td>Perlite</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>X</td>
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<td>Polymers</td>
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<td>0</td>
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<td>XXX</td>
<td>0</td>
<td>X</td>
<td>0</td>
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<td>X</td>
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<td>0</td>
<td>XXX</td>
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<tr>
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<td>XX</td>
<td>XXX</td>
<td>0</td>
<td>X</td>
<td>X</td>
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</tr>
</tbody>
</table>

XXX = very good in this characteristic
XX = Okay in this characteristic
X = Weak in this characteristic
0 = not applicable
The following potting mixes are examples of some that are widely used in the commercial horticultural industry and should be suitable for home garden trials.

**Potting mix for container-grown woody ornamentals and planting beds.**

- 6 parts pine bark mulch
- 1 part sand
- 5 lb. ground dolomitic limestone per cubic yard (1/3 cup per cubic foot)
- 14 lb. slow-release fertilizer high in N (e.g. 18-6-12) with micronutrients per cubic yard (~3/4 cup per cubic foot)

Always chose a fertilizer with about 3 times more N than P₂O₅ (e.g. 3:1:x ratio of N:P₂O₅:K₂O such as Sta-Green® 18-6-12 or Osmocote® 19-6-12)

May use about 10% compost in mix.

**Potting mix for tender annuals and container-gardening.**

- 4 parts pine bark
- 1 part peat
- 5 lb. ground dolomitic limestone per cubic yard (1/3 cup per cubic foot)
- 14 lb. slow-release fertilizer high in N (e.g. 18-6-12) with micronutrients per cubic yard (~3/4 cup per cubic foot)

Always chose a fertilizer with about 3 times more N than P₂O₅ in fertilizer.

May use about 10% compost in mix.

**Potting mix with slow-release fertilizer for seedlings and tender annuals in greenhouse.**

- 1 part peat
- 1 part horticultural vermiculite
- 10 lb. ground dolomitic limestone per cubic yard (¾ cup per cubic foot)
- 3 lb. premium grade 13-13-13 with micronutrients per cubic yard (¼ cup per cubic foot)
- 5 lb. Osmocote (14-14-14) per cubic yard (1/3 cup per cubic foot)

**Some useful measurements:**

- 1 ¼, 5-gallon plastic bucket ≈ 1 cubic foot
- A 5-gallon plastic bucket ≈ 0.8 cubic feet
- 27 cubic feet = 1 cubic yard
- 34, 5-gallon plastic buckets ≈ 1 cubic yard
- 1 pint mixed fertilizer or coated fertilizer ≈ 16 ounces (1 pound)
- 1 pint ground, dolomitic limestone ≈ 26 ounces (1 lb. 10 oz.)
- 1 pint pelleted limestone ≈ 22 ounces (1 lb. 6 oz.)
- 1 pint= 2 cups ≈ 16 ounces = 1 pound

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