

Potting Soil or Media

The potting soil or media in which a plant grows must be of good quality. It should be porous for root aeration and drainage but also capable of water and nutrient retention. Most commercially prepared mixes are termed artificial which means they contain no soil. High quality artificial mixes generally contain slow release fertilizers which take care of a plant's nutritional requirements for several months. Commercial mixes are often misleading as to content and unsatisfactory. It is better to mix your own if possible.

Preparing Artificial Mixes

Artificial mixtures can be prepared with a minimum of difficulty. Most mixes contain a combination of organic matter, such as peat moss or ground pine bark, and an inorganic material, such as washed sand, vermiculite or perlite. Materials commonly used for house plants are the peat-lite mixtures, consisting of peat moss and either vermiculite or perlite. Here are some comments concerning the ingredients for these mixes.

Peat Moss - Readily available baled or bagged sphagnum peat moss is recommended. Materials such as Michigan peat, peat humus, and native peat are usually too decomposed to provide necessary structural and water-drainage characteristics. Most sphagnum peat moss is acid in reaction, with a pH ranging from 4.0 to 5.0. It usually has a very low fertility level. Do not shred sphagnum peat moss too finely.

Vermiculite - This is a sterile, light-weight mica product. When mica is heated to approximately 1,800 degrees Fahrenheit, it expands its plate-like structure. Vermiculite will hold large quantities of air, water and nutrients needed for plant growth. Its pH is usually in the 6.5 to 7.2 range. Vermiculite is available in 4 particle sizes. For horticultural mixes, sizes 2 or 3 are generally used. If at all possible, the larger-sized particles should be used since they give much better soil aeration. Vermiculite is available under a variety of trade names.

Perlite - This is a sterile material produced by heating volcanic rock to approximately 1,800 degrees Fahrenheit resulting in a very lightweight, porous material that is white in color. Its principal value in soil mixtures is aeration. It does not hold water and nutrients as well as vermiculite. The pH is usually between 7.0 and 7.5. Perlite can cause fluoride burn on some foliage plants. Fluoride damage is usually seen on the tips of the leaves. The burn progresses from the tip up into the leaf. Fluoride burns can be prevented by adding 1 1/2 times the recommended amount of lime when mixing the soil. A good artificial mix, containing no outside garden soil follows.

Formula - The following materials will make two bushels of mix: Formula - The following materials will make two bushels of mix: - The following materials will make two bushels of mix:

1 bushel shredded peat moss
2 bushels perlite or vermiculite
1/2 cup 8-8-8 or similar analysis mixed fertilizer
1 level teaspoon chelated iron

Artificial mixtures are usually very low in trace or minor elements; therefore, it is important to use a fertilizer that contains these trace elements.