

Media, Repotting & Containers

Soil vs. Media:

Few foliage or flowering plants are grown in field soil. Most are produced in a soilless growing medium which consists of components such as peat moss, wood residues, sand, etc. These media are designed to provide the necessary aeration, drainage and water holding properties required for plant growth in a container. Generally speaking, soilless media are light weight, very porous and hold substantially more water than field soils.

Many field soils also contain harmful insects, diseases and nematodes which can attack plants. Most soilless media are pest free and require no treatment prior to planting.

Soilless Media:

Soilless media can be made up from a variety of components. Therefore it is important to become familiar with some of the most widely used materials and their influence on plant growth.

Peat moss is the most commonly used component in soilless growing media. This material has excellent water holding characteristics and works well with other components to provide the physical properties necessary for optimum plant growth.

Peat Moss:

There are many types and qualities of peat moss. Native peats, humus and muck are generally not suitable for use with foliage and flowering plants. Hypnum and sphagnum peats are the two most frequently used in making up soilless media. Most commercially available peats are of acceptable quality for potting but the general rule is “you get what you pay for”.

Wood Residues:

Wood residues such as bark, bark ash and similar materials are also popular for use in growing media. These components provide large pores or openings in the mix which promote aeration and drainage. They also hold a substantial amount of water as well. Wood residues are available in a wide range of sizes but most are approximately 1/4-inch or less in diameter.

Vermiculite:

Vermiculite is a sterile, lightweight mica product available in a variety of sizes. When mica is heated to approximately 1800 degrees F. its plate-like structure expands, allowing it to retain large quantities of air and water. Generally the finer grades of vermiculite are used for seed germination while the coarser grades are used for potting media.

Perlite:

Perlite is produced by heating volcanic rock to approximately 1800 degrees F. This results in a sterile, lightweight, porous material that is white in color. Perlite ranges in size from 1/8 – 1/4 inch in diameter and is an excellent material for increasing aeration and drainage but holds little if any water.

Pre-Mixed Growing Media:

A variety of pre-mixed, commercial growing media are available. These products combine components to create optimum aeration, drainage and water holding characteristics for plant growth. Again, types and quality can widely differ so look carefully at the medium to determine if it will be suitable for the desired application.

Wetting Agents:

Organic materials such as peat moss and wood residues have a waxy outer coating that repels water. As these components dry they become increasingly difficult to re-wet. Even though water is applied to dry media it may not penetrate the surface. Under these conditions water will run to the edge of the container, down the sides and out of the bottom, without wetting the core of the root mass.

Wetting agents help reduce surface tension and provide uniform water distribution throughout the medium. Several commercial wetting agents are available but a drop or two of dish washing detergent in the irrigation water often does the trick.

Repotting

Actively growing plants occasionally require repotting. The primary indications that a plant needs repotting is when roots begin to become crowded or grow out of the bottom of the container. This condition is often referred to as being rootbound. When plants become rootbound their ability to take up water and nutrients is impaired. This usually results in poor vigor and overall health.

Containers:

Begin the repotting process by selecting a new container. A general rule of thumb is never to go up more than 2-inches in diameter than the original pot. Any greater increases will make watering difficult and non uniform. Be sure the new container has adequate drainage holes. If it does not, use a pot as a liner and set it inside of the decorative container.

All pots should be free of any used soil, salt residues or other organic materials. To disinfect a pot prior to planting, soak it in a solution of one part liquid bleach and 9 parts water for 15-30 minutes.

How to Repot Plants:

Most plants are easily removed from their pot if the lip of the container is knocked upside down against a solid object. Hold your hand over the media, straddling the plant between the fore and middle fingers while knocking it out of its present container.

Potting media should be moistened before repotting begins. Place a layer of media in the bottom of the new container. Next, position the root ball so that the soil surface will be the same level as in the original pot. Adjust the bottom layer of media (adding or removing) to support the root ball. Lastly, fill in around the sides with growing medium, using light compaction. When you have finished the plant should be back at the original depth, with a 1-2 inch reservoir for watering.

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