

Preparing a Soilless Growing Media

Whether growing “hydroponically” or “organically” you need a growing media or a “substrate” to hold the plant roots, water and nutrients. For convenience, and low cost, Verti-Gro has chosen “perlite” as its base growing media substrate. This product is included with all vertical gardens except the larger units. Perlite is a natural sand product that has been heated and expanded to become very lightweight and porous. Commercial growers use perlite for aeration and to make potting soil mixes lighter. Perlite is excellent for drainage but should not be used alone except in certain cases. Perlite is bulky and light so the freight is relatively high. Check with your local nursery or garden center. If they don't carry it ask them if they could. Most likely they will. The economy size is 4 cubic feet, which is about 30 gallons and cost about \$10.00. Many stores stock small bags, which are more expensive. If perlite is unavailable Verti-Gro stocks this product in 2 cubic foot (15 gallon) boxes for \$8.95 +\$5 S&H.

Coconut fiber, which is aged organic coconut husks (or coir), is the other ingredient to mix with perlite for water holding capacity. This product is very clean, very consistent, very stable and easy to use. It may be in a compressed block or loose. Simply add water according to the instructions on the package or use approximately 3 quarts of warm water for every one pound of compressed coconut fiber. The small brick weighs 1.25 pounds to use about 5 quarts of water starting with one gallon then adding the extra as needed until the brick is fully expanded and no dry material remains. Use warm water for faster expansion.

(In some units the coconut fiber is fully expanded and some units the growing media is pre-mixed for easy use)

Use 15-20% by volume with 80-85% perlite. For example, the one (1) stack comes with approximately 4 gallons of perlite and 1 grow brick (or coarse vermiculite). After expanding or wetting the coconut fiber mix 1 gallons with the 4-5 gallons of perlite. You can do this in a large plastic bag or garbage can. Wet the perlite slightly first to avoid the dust. The dust is not harmful but it is annoying. Fill the Verti-Gro pots to the lip where the next pot rests. Do not overfill. Do not over compact. Simple press lightly with you hand until it is firm. The percentage is not critical but even mixing is necessary.

(For organic growers a separate cocofiber mix is supplied which is mixed with about 60% perlite)

The pots can be filled on the stack or off the stack. In re-circulating units put the debris screen in the pot that goes one the base (hole in lid that is the same size as the pot). If you fill the pots off the stack and then put them on the stack, tape the top of the pipe so that debris does not get into the pipe and plug the emitter. Once all the pots are on the stack you are ready to test the system. Turn on the pump by hand or with the timer and adjust the flow of the emitter to just a trickle (about 2-3 gallons per hour). The timer runs for a minimum of 15 minutes on the smaller units but the excess returns to the tank for re-use. On outdoor units the timer runs for only 2-3 minutes. (See separate instructions for more growing and planting information)

Vertical Gardening