## RootMaker® 15 Gallon, Blow Mold Patent # 10,798,881

Finally, RootMaker® technology in a 15 gallon blow mold container. Carl Whitcomb, PhD, Lacebark Research Inc.

Container evolution / progress has been fascinating to watch and play a minor part. The newest evolution of large containers has been blow molding. I have watched and participated in growing plants in clay pots, to painted metal food cans, to formed galvanized larger containers, then injection molded plastic containers with a life of a few months, to plastics that last for several years. Injection molding has been refined to work well up to about 5 gallon volume. Then blow molding came into being and large round containers hit the markets. But, all of the conventional containers had smooth interior walls that allowed roots to circle and intertwine, creating problems short and long term, especially for trees.



It is a long way from creating slots in round plastic containers using a soldiering iron in 1968 (that provided no benefits) to current RootMaker® container technology. RootMaker® containers up to the 18 cell trays, are thermoformed polystyrene. RootMaker® round containers, one gallon through 5 gallons are injection molded and include ribs, ledges, and openings for effective air-root-pruning. The challenge with blow-molding has been how to extract the container from the blow mold cavity if it contains offsets, ledges and angles necessary for air-root-pruning.

The problem was overcome by making two ribs on either side of the center of the mold cavity with sufficient offset and slope to allow release of the container.

Roots grow mostly horizontal, extending until they are deflected or killed. The tip of the root controls extension and branching. When a root encounters a rock, other impervious surface or the sidewall of a container, it deflects / ricochets in a new direction. In the case of conventional round containers, the root extends outward, contacts the container sidewall and, depending on the angle of contact, is deflected left, right or downward, then continues to follow the new trajectory. It is not uncommon to find a root following the full 360 degree curvature.

The new RootMaker<sup>®</sup> 15 gallon blow-mold incorporates the patented ledges, ribs and openings strategically placed so roots contact the sidewall and are guided into openings for air-root-pruning.

In addition to the root pruning features, the built-in handles provide easy handling capability.





Please visit www.rootmaker.com or call 1-800-824-3941 for more information.