

Reuse of Waste Media

Bryan Maw, Research Engineer, UGA
Paul Sumner, Extension Engineer, UGA
Wade Sparkman, Bouldin and Lawson
Jeff Beasley, Transplant Nursery Inc.
Jim Midcap, Extension Horticulturalist, UGA

Introduction:

There is a need for media from pots to be reused, without it being further ground. The separation of pot, media and discarded foliage is needed in order for both pots and media to be reused, with only the spent foliage being ground.

It has been observed that there is a wide variation in the constitution of media used by different nurseries as well as there is a wide variation in the development of roots before the media is needed to be reused. In the case where media is bound by roots, only heavy sand may easily be separated. The rest is bound by the roots encouraging the present method of grinding roots, stem and media mix in a tub grinder as being an accepted practice. For a separation process to be of value there should be a clear understanding of the type of media being used and the stage of growth of roots and stem at the time of separation, as these quantities will determine the process and degree of separation.

Effort so far:

At the The Coastal Plain Experiment Station in Tifton, GA, ornamentals having varying levels of growth of roots in pots of various sizes have been examined. Different actions of separation have been tried and tested. These have used vibration as the means of separation either by beating or shaking the root bound media mass. No tests have successfully separated media from the root mass. High pressure water jets have not been tried since it has been thought that the media should remain dry during separation. Were water to be used, there would be a need for an elaborate filter to remove the fine material from the water, and a dryer or press to extract water from the media.