

Growing Media Water Holding Capacity & Wettability Testing

Water Holding Capacity Testing

The Water Holding Capacity (WHC) of a growing media measures the amount of water that a growing media can hold without causing plant stress. The WHC is largely determined by the amount and type of pore spaces available in the growing media, however the height and shape of the growing container also influences the growing media's WHC (see Container Media Management; K. Bodman & Dr. K.V. Sharman which can be purchased from NGIQ). EcoHort guidelines recommend a WHC of greater than 40% (see EcoHort Guidelines from NGIQ).

Method	Formula
<ol style="list-style-type: none"> 1. Weigh a watertight container (record the container weight) 2. Take the saturated sample of media from the AFP apparatus and put this into the container 3. Weigh the saturated sample and container (record the wet weight) 4. Dry the sample out until it reaches a stable weight. This can be done in an oven or in the sun 5. Weigh the dry sample (record the dry weight) 	$\frac{(\text{Wet weight} - \text{Dry weight})}{\text{Wet weight}} \times 100$ = Water Holding Capacity

Wettability Testing

The Wettability of a growing media measures how easily a growing media can be moistened. Wetting agents or coir can be added to improve the wettability of a growing media. EcoHort guidelines recommend a wettability of less than 2 minutes as measured by the Australian Standard.

Method	Result
<ol style="list-style-type: none"> 1. Make a mound of growing media using the dried media from the WHC test. 2. Make a small depression in the top of the mound sufficient to hold 10mL of water 3. Pour 10mL of water into the depression and measure how long the water takes to soak into the growing media. 4. If the time taken to soak into the growing media is less than 5 minutes the growing media meets the requirements for a premium media and, if less than 10 minutes, it meets the requirements for a regular media. 	<p>Less than 2 minutes = EcoHort Guidelines</p> <p>Less than 5 minutes = Premium Media</p> <p>Less than 10 minutes = Regular Media</p>

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