

## POTTING MIX TESTING

### Using the 1:1.5 Water extract method to determine Ec and pH

#### Equipment:

Conductivity meter

pH meter

Calibration solutions, pH4, pH7, Ec 2.74

A small measuring cup calibrated for 100ml and 150ml

A screw top container with a minimum capacity of 500ml

A square of fine mesh shade cloth, large enough to cover the top of the screw top container

Plenty of clean water

#### Testing procedure: A rapid method for indicative purposes only

1. Calibrate the test meters in accordance with the manufacturer's instructions
2. Measure 100ml of potting mix, loose fill, made up of several sub-samples
3. Place in the screw top container
4. Measure 150ml of irrigation water and add this to the potting mix in the screw top container
5. Attach the lid and shake the mix for 1 minute
6. Pour the liquid through the fine mesh shade cloth back into the small measuring cup.  
Do not squeeze the sample. You need to recover at least 100ml of the solution.
7. Test the liquid extract using the calibrated meters

#### Scope and purpose of this test:

To provide a quick, realistic and reliable measure of potting mix or soil pH and Ec

To produce reliable and repeatable results in the field inexpensively

To provide predictive data on when to apply supplementary fertiliser during culture

To gather numerical data about growing media pH and overall nutrient status with a view to optimizing crop performance.

#### N.B.

The Ec data will not tell us which nutrient salts are present but will quantify the total soluble salts in the sample.

When encapsulated fertiliser products are in the potting mix this test does not measure unreleased soluble nutrients. However if the sample is ground-up prior to adding the water the Ec value of the total soluble salts yield from the mix can be measured.

If a fresh potting mix containing an encapsulated controlled release fertiliser is ground-up and tested this data will form a 'bench mark' from which Ec and ultimately fertiliser longevity verification can be interpreted, from the same specification mix, at any point during crop production.

When Urea forms part of the nutrient charge in a mix it is important to allow for the fact that Ec testing does not accurately measure the total salinity felt by the root system. This is because Urea forms a molecule in water and not ions as with other fertiliser salts. Allowance for this factor should be made when Ec data is interpreted.

For more information and interpretation of your results contact:

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## Information, Advice, Supply