



# TESTING AND ADJUSTMENT

# LEACHATE FRACTION
# MEASURING IRRIGATION EFFICIENCY

Conducting regular Leachate Fraction tests is a smart and proactive way for any nursery or greenhouse operator to take control of their irrigation program. This test is simple and inexpensive to perform.

**Leachate Fraction Defined:**
The amount of irrigation water that makes it through the canopy, and the substrate and was collected. Leachate Fraction is a measure of the efficiency of your irrigation practices.

**Benefits of Conducting a Leachate Fraction Test**

- Adjustment of plant placement into appropriate irrigation zones or blocks
- Alignment and proper distribution of irrigation equipment within zones or blocks
- Help determine if you are over or under watering
- Can help determine if all plants are receiving the same amount of water in the same irrigation zone
- Can help determine if certain plants are experiencing root issues due to watering

**Substrate Differences**
Leachate Fractions vary based on substrate. Being under the recommended rate will cause dry areas and a hydrophobic soil on crops. Being over the recommended rate will cause early and rapid release of some CRF's as well as lack of uptake of nutrients by the roots of the crop.

**Substrate Recommendations for Leachate Percentage**

- Bark mixed is recommended at 20%
- Peat mixes are recommended to have a leaching fraction of between 10-15%
- Highly controlled greenhouse situations can have a leaching fraction of 0%

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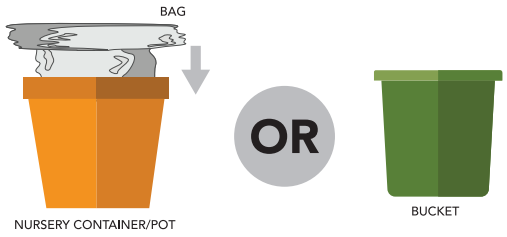
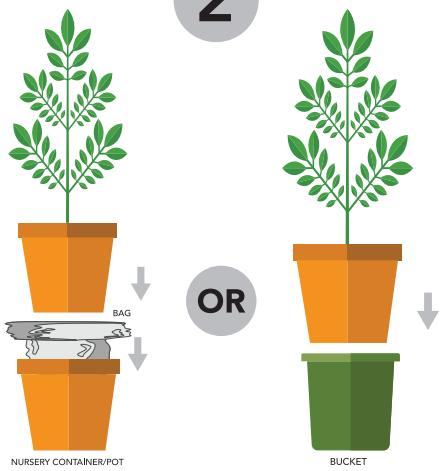
# CONDUCTING A LEACHATE FRACTION TEST

## 1



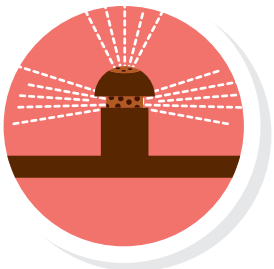

Use an empty bucket (or pot lined with a bag) to collect total applied irrigation. Make sure this is the same size as your plants you are testing.

## 2



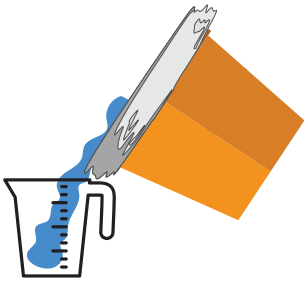

Line potted plants with a plastic bag (or use a 2nd bucket) to collect water. Ensure a tight seal

## 3



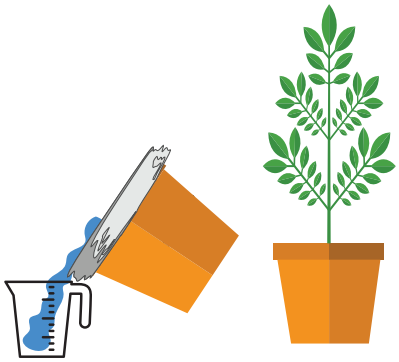
Run your normal irrigation routine

## 4



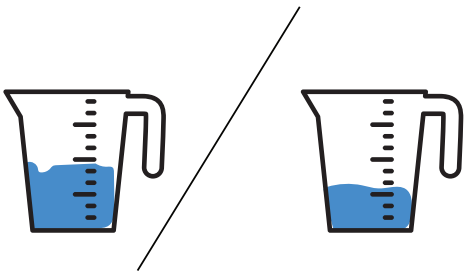
Measure the water collected in the empty container (or pot lined with a bag) to find the total irrigation applied

## 5



Measure the remaining water in each plastic bag or 2nd bucket.

## 6



Divide the measurement from instruction #5 into the measurement from instruction #4 and you have your leachate fraction

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