

## Calibration Procedure for Soil Humidity.



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The following procedure is a 1-point calibration at your maximum water holding capacity. This is one of the most relevant for irrigation operations.

1-This procedure is only necessary for the substrates indicated in the datasheet: Clay, bark, perlite or if you suspect of significant differences between reality and measurements.

Sigrow measures Volumetric Water Content (VWC %)

$$\text{VWC} = \frac{\text{VolumeWater}}{(\text{VolumeWater} + \text{VolumeAir} + \text{VolumeSoil})}$$

$$\text{VWC} = \frac{\text{VolumeWater}}{\text{VolumeTotal}}$$

2-Sigrow sensor readings are repeatable, also between batches therefore only one sensor of the whole wireless sensors network is required to be calibrated.

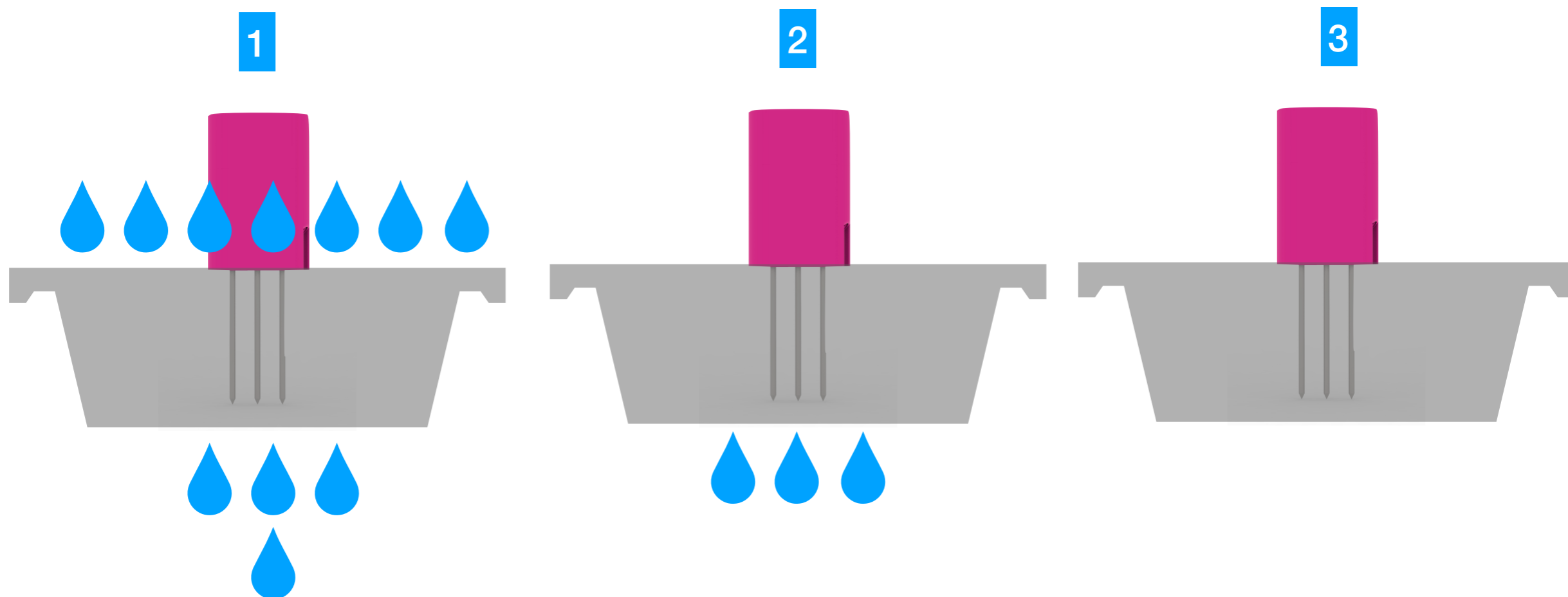
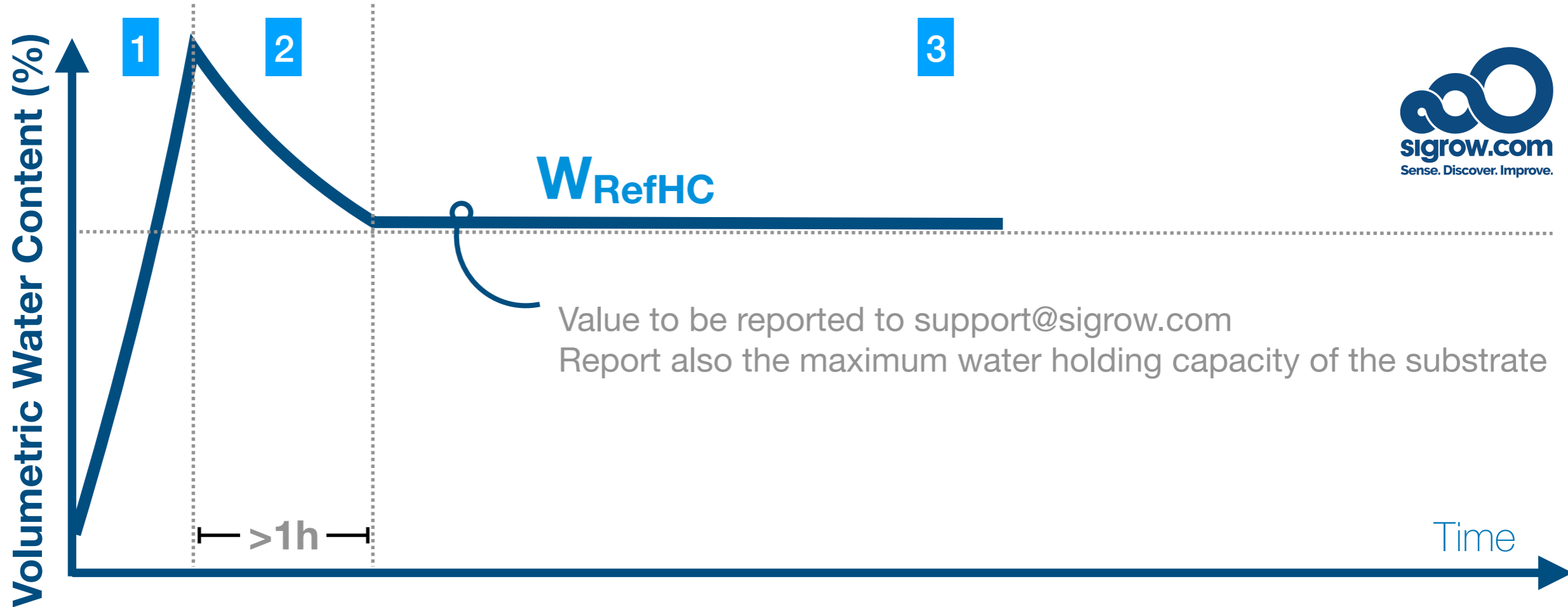
3- Keep in mind that differences between soil reading sensors are mainly due to:

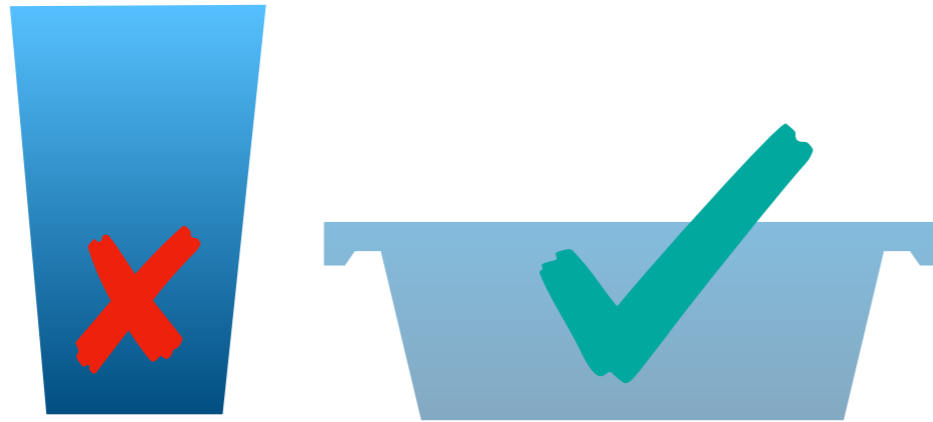
Real local differences in the substrate water content

Differences during insertion of the soil sensor

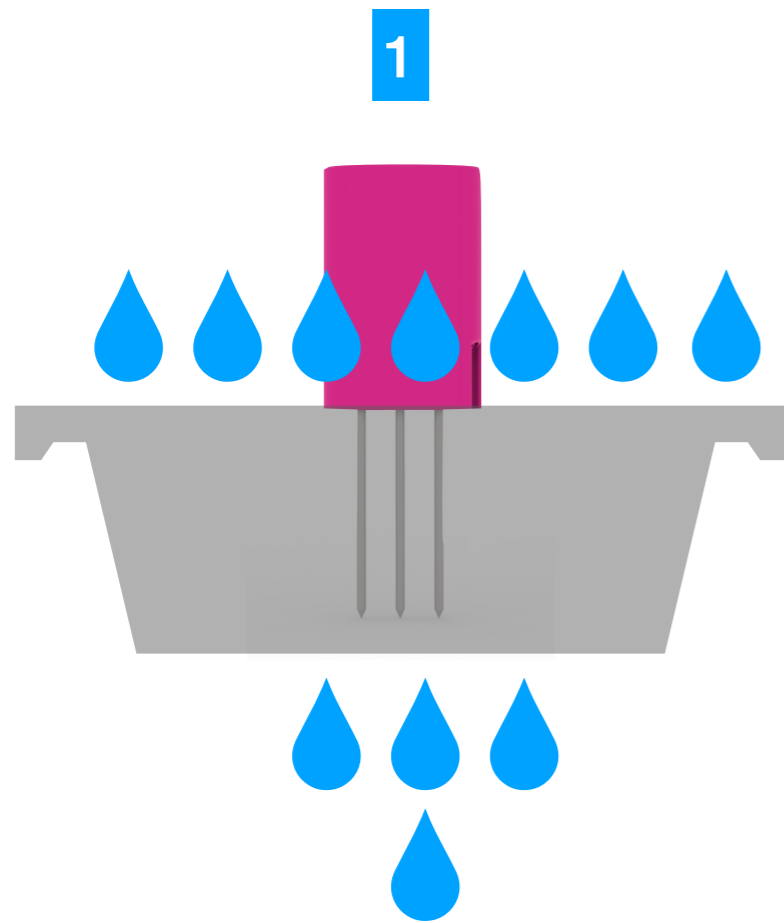
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Jun 2021  
The Netherlands



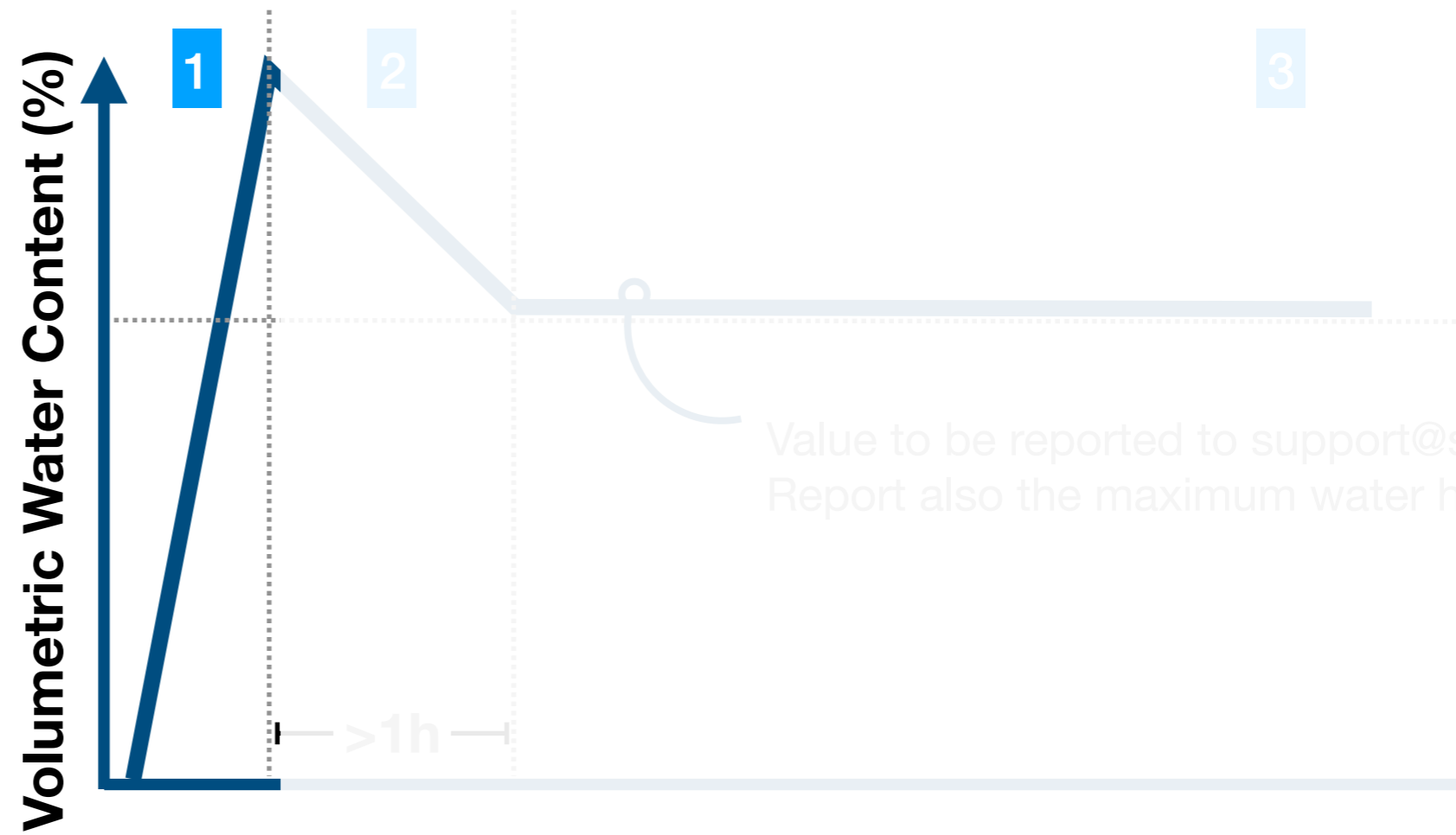


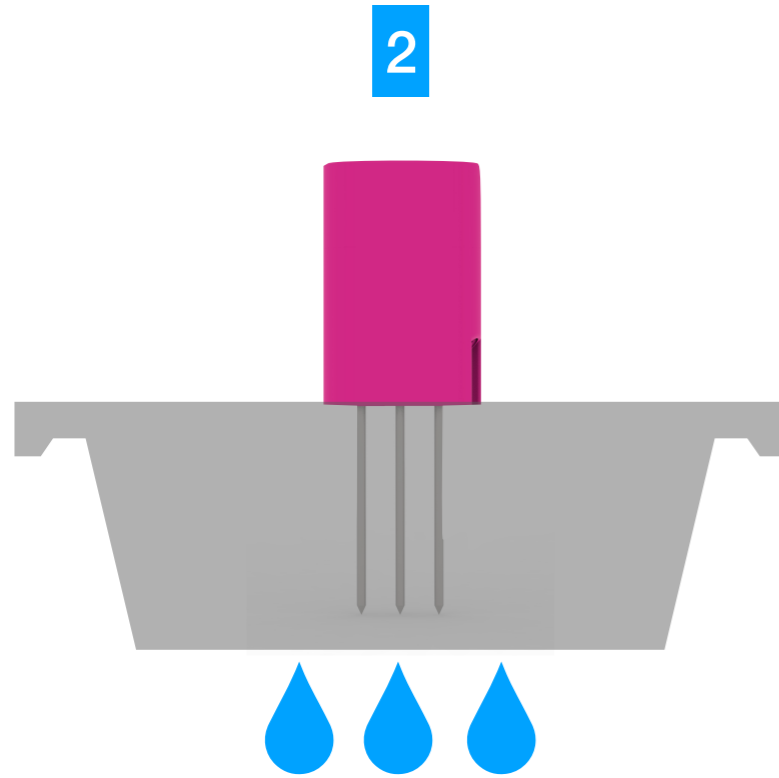


Use a pot as short as possible (~80 mm is ideal)  
this avoid gradients due to water weight improving  
how homogeneous the volume is

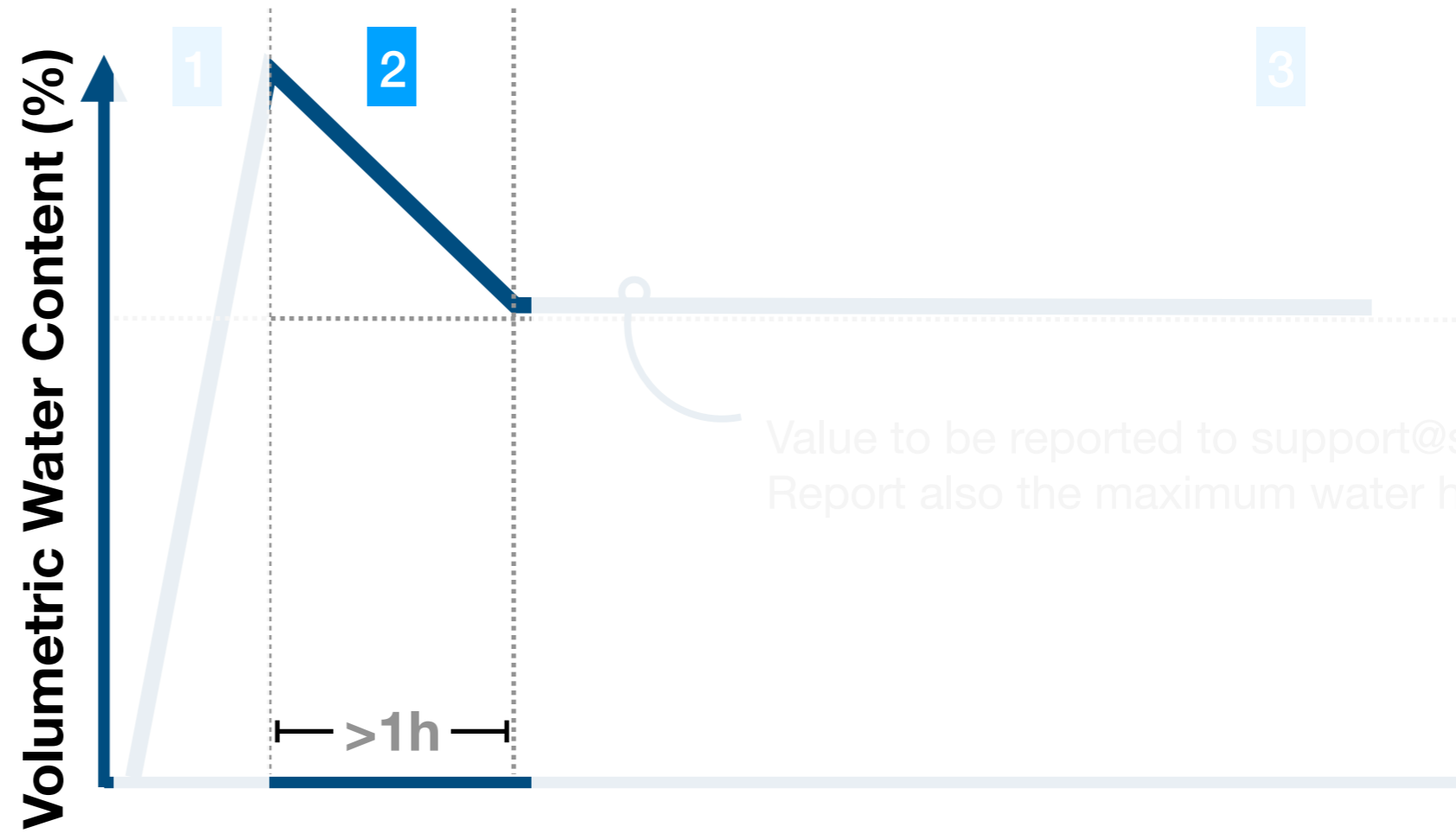


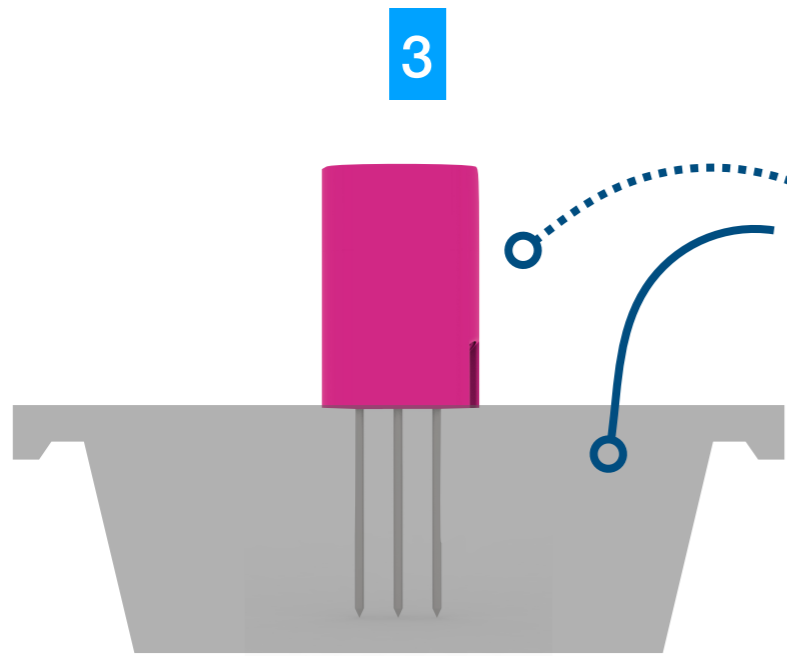
Water as much as possible the substrate





Let the water drain until no more drops are coming out



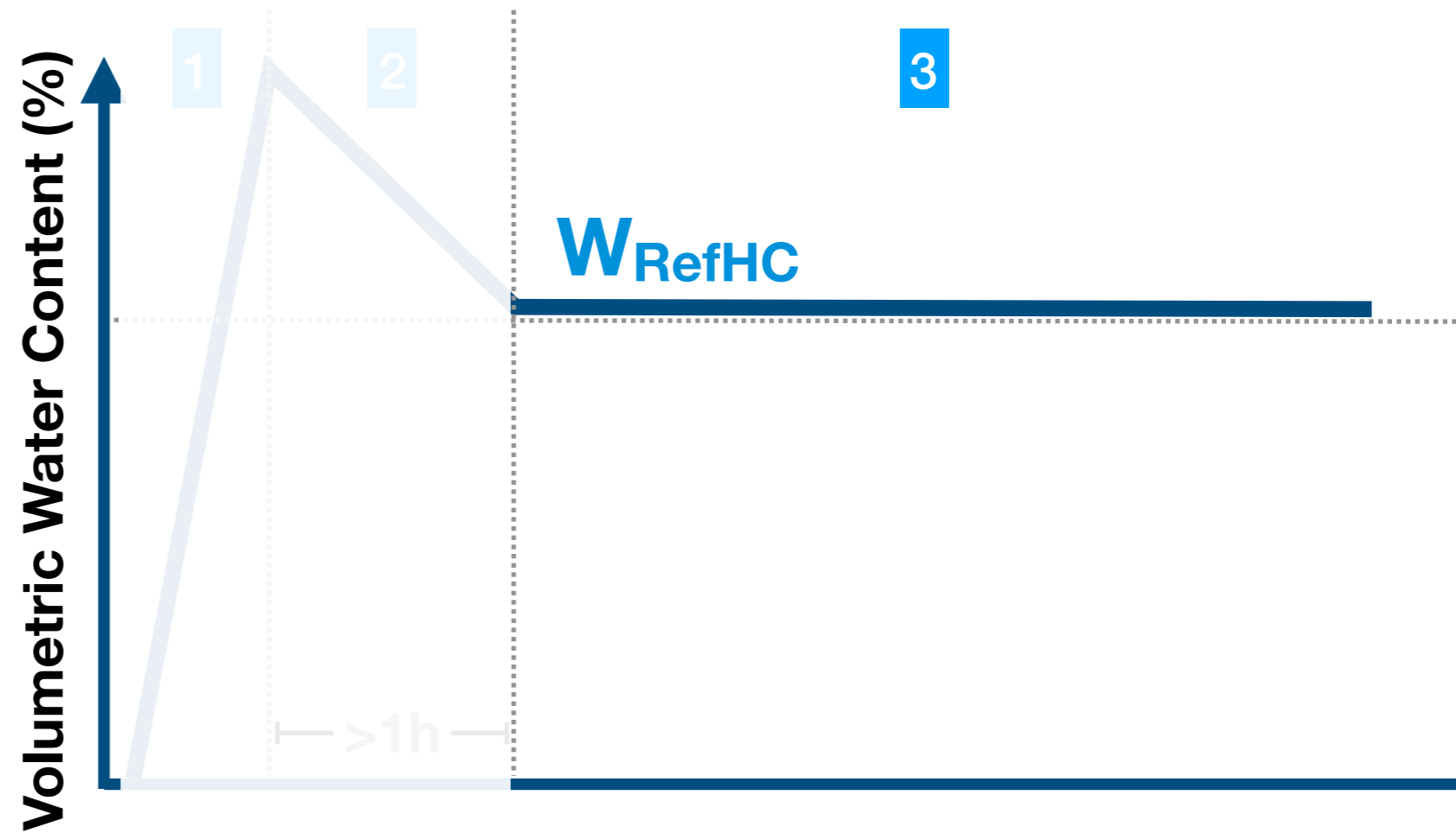


**After excess water has left the substrate:**

Report to Sigrow:

Sigrow Sensor measurement high content value  $W_{SigrowHCbefore}$

Substrate maximum water holding capacity  $W_{RefHC}$



Report to [support@sigrow.com](mailto:support@sigrow.com)

1. Sigrow Sensor measurement:  $W_{\text{SigrowHC}}$
2. Substrate maximum water holding capacity  $W_{\text{RefHC}}$
3. Sensor ID, Central ID, time.

