# Determine soil dry weight and water content gravimetrically

## Authorship

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## References

[cfr.washington.edu protocol](http://www.cfr.washington.edu/classes.esrm.410/moisture.htm)

## Supplies

* Soil samples (sieved)
* Weigh boats
* A gram-scale

## Method

* Write unique labels on each weigh boat.
  + 1 weigh boat needed per measurement.
* Weigh each weigh boat and write the weight on the boat.
  + This is needed to determine the dry weight.
* Place a pre-weighed weigh boat on the scale and tare (zero the scale).
* Place 10-20 g of soil on the weigh boat.
  + 10 g soil should to work fine, but make sure at least 10 g is used.
  + **MAKE SURE:** to record the exact weight of the soil
    - measurement = "soil wet weight"
* Repeat weighings for all soil samples
* Dry soil samples in a drying oven for ~24 hrs.
* Re-weigh the soil + weigh boat.
* Subtract out the weight of the weigh boat
  + Resulting value = "soil dry weight"
  + % as wet-weight basis; range is 0-100%
  + Where: