Dirty Business Soil Consulting & Analysis
1185 11th Street, Arcata, CA 95521
707.633.8885
DBSanalytics.com

How to use a pH meter

Care and maintenance

- Storage Solution – Stays in the cap so when you put it away the probe won't dry out. ***Only replace when low or dirty.***
- Cleaning Solution – Use cleaning solution once a week*
- Calibration solution – Calibrate once a week*
  (*or longer based on frequency of use)

pH the nutrient solution (for feeding or extracts)

1. Fill water tank
2. Add liquid nutrients first
3. Mix thoroughly with a circulating pump ***(if nutes only)*** or bubble snake ***(if tea or extract)***. (Or other method that may arise)
4. Remove the cap of the probe being CAREFUL not to spill or dump out the "storage solution". (Add more storage solution if it gets ***low*** or ***dirty***.)
5. Rinse probe with clean water
6. Scoop up solution with a jar and submerge clean probe into liquid
7. Read pH to see ***if*** you need to adjust (pH6-7). No adjustment needed if in range.
8. Adjust pH of the solution using pH "up" or "down" if necessary
    a. If solution is not in the desired range (6-7) then continue to adjust and read until it is in range.
    b. Start with ¼ cup for 55gallon barrel. ¾ cup for 250gal
    c. Once solution is at desired pH (6.5'ish), rinse off pH probe.
    d. Replace cap containing storage solution, making sure the tip is submerged in liquid.
    e. Power off the probe and place it back in the pH kit ***(keep upright so storage solution does not spill)***
9. After solution is pH'd you may add contents of extractor bag if any

pH and EC the soil - Soil Slurry

pH soil slurry:

1. Scoop about a handful of soil into **French press**
2. Saturate the soil with distilled water (mud pie consistency)
3. Let sit for an hour
4. Add more water if necessary
5. After at least an hour (or longer) ***remove the cap of the probe*** being CAREFUL not to spill or dump out the "storage solution". Add more solution if it gets low (pH 7 calibration solution may be substituted)
6. ***Rinse the storage solution*** off the pH probe (Leaving the solution in the cap)
7. GENTLY ***place <u>calibrated</u> pH probe directly into the "mudpie"*** slurry, making sure to fully submerge probe tip into slurry
8. ***Record reading*** in the Farmer Manual (Or your own form of record keeping)
9. Rise soil particles off the pH probe
10. Replace cap containing storage solution, making sure tip is submerged in liquid.
11. Place the probe back in the pH kit

EC soil slurry:

1. After pH'ing the soil slurry put the pH probe aside and get out the EC meter
2. Place the French press lid on top and press the plunger down.
3. Using continued pressure, pour off liquid into a small container that will hold the liquid as well as fit the probe.
4. Place calibrated EC probe into the solution
5. Record EC in data sheet provided.
6. Rinse off EC probe and place it back in kit

EC Nutrient Solution:

1. After thoroughly mixing nutrient solution, scoop a representative sample into a clean jar or container
2. Place the calibrated EC probe into the nutrient solution
3. Record EC in data sheet provided
4. Rinse off EC probe and place it back in kit