## Brewing In A Drought

Brewing Water Quality – If you're like me your water quality sucks. Smells like swamp water and tastes like I imagine swamp water tastes like. What to do;

- Charcoal Water Filters
   All charcoal water filters will take out most organic and chlorine/
   chloramine compounds and many remove heavy metals, arsenic and other undesirable elements. Ions are left intact. \$
   en.wikipedia.org/wiki/Ca#5FE2F3
- Reverse Osmosis Filters
   These filters also strip ion components. Wastes water at a rate of 3 gallons for every gallon filtered
   Good if you want to build your own water.\$\$
   espwaterproducts.com/abo#5FE25B
- Distill Water at Home---- really slow (8 gallons per day) and expensive
  I have one of these machines- very slow 8 gallons per day and anything
  off odor or flavor is in the water. You have to filter first. \$\$\$
  http://www.waterdistillersdirect.com
- Buy your water at the grocery store- any Safeway or Lucky store has a
  water filling station at entrance of store. Not sure about quality but I know
  some who have used this source. Supposedly R/O filtered \$.5.

#### **Cooling Water Conservation**

- Recycle chilling water- I started out with a couple 55 gallon extract barrels that I would collect chilling water in as well as rain water ( when it happened). I would use the chilling water to irrigate the yard and garden. I used a submersible pump from Harbor Freight to water the garden from these barrels. I got the bright idea of using the collected water- with the use of the pump- to chill my next batch. The results were amazingly efficient actually using less water than faucet water. This had a lot to do with flow rate. That means that I wasn't paying enough attention to flow control.
- Bottom line If your cooling water is cool/ chilly coming out of your chiller, it's running too fast...
- Immersion chiller-Recirculate while chilling or just stir the wort with a sanitized spoon while cooling which increases cooling efficiency.
- Counterflow/ Plate chiller very efficient method of cooling. No stirring required.

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## Pre-chilling cooling water

• If you have another immersion chiller, no matter how minimal, it can cool the temp of chilling water if submersed in ice water. Just requires a couple extra short garden hoses to connect to your primary chiller.

#### Cleaning

Reuse your sodium percarbonate or PBW. If you are cleaning kegs, carboys
or other containers, brush those and drain liquid into a suitable vessel. Reuse as required ...... the cleaning properties last a LONG time. I usually leave
percarb in my kegs until just before I'm ready to fill them. If I have a carboy
that needs cleaning I'll use the solution from a keg rather than mixing up new
cleaning solution

### No Chill Brewing: