GADGETS

By Hank Bienert

Besides brewing, I like making gadgets related to brewing and would like to share some stuff I do that may not be well known.

Two big challenges are a clean ferment and cooling the wort.

1) A large vigorous starter will overcome any lapse in sterile technique and also allow us to find out ahead of time whether the engine (yeast) is good or not in time to get a backup. I used to keep dried malt extract around and boil it up, cool it down, etc. but lately have taken to using frozen wort. At the end of draining off wort one always leaves behind a few quarts of slurry which I used to offer up as a sacrifice to St Arnold of Metz, i.e. throw it away. I now drain it all off into a pitcher which I cover with plastic wrap and refrigerate. The next AM the liquid that has separated off is poured into a freezer bag or freezable plastic container and frozen. When needed, this is taken out and reheated and after BOILING 12 minutes (a 10 minute boil will denature botulism toxin) it is cooled down in the usual manner and the yeast added. If it proves to be a good yeast, the day before I brew I add a little simple syrup (com sugar + H_20 taken to boil then cooled then aerated via shaking or in my case whisked with an electric mixer) and it all goes in the frig. A couple of hours before I need the starter I take it out and aerate again. I have read that cold yeast accepts 0_2 best.

One can also can wort but that seems like a LOT more work.

I aerate my chilled wort by having the last foot of my discharge tube a Cu tube with a hole of a lesser diameter than the tube's ID and placed 10" from the end. The air sucked in will cause lotsa foam and ending the tube into a T with the combination of IDiameters > the ID of the Cu tube also adds 0_2.

2) In life, there are no problems but only opportunities for personal growth and that applies also to summer brewing. Immersion chilling has the disadvantage of the coil taking up space in what may be a full boil pot but obviates the need for a 3 tier system / pump as is required - with a counter-flow chiller/coil in an ice bath. The problem with the IC is that as the temp of the hose water (mid-80s) approaches that of the cooling wort, the rate of chill diminishes usually slowing down around 95. A pre-chiller in which one places another coil ahead of the IC sounds good but doesn't really work. I had tried this but after a couple of minutes (Jeff parish water flows 5G/min) measurement of the outflow temp from the pre-chiller shows that the temp is only 5-6 degrees below hose water temp. Slowing down the flow through the pre-chiller will cause more of a drop BUT this slows the flow through the IC and the slower the IC flow the less cooling occurs. What I have done is to use hose water until the flat spot on the chill curve (about 95) then disconnect the hose and attach a different hose (or U can use a Y connector with reversed fittings). This new hose is fed by an inexpensive fountain pump (10 bux at harbor freight/Sam's) which is sitting in the same ice bath U wanted to use with the pre-chiller coil. This water is cold!! Feed the circuit back through and add an ice source if the ice bath gets above 65.

There are a lot of clever brewers who live in our area and I would like to hear about their special setups.

Thanks,

Hank