

Copper Queen Courtesan

STEP 1: SANITIZING

Cleaning is one of the most important steps in brewing. It kills microscopic bacteria, wild yeast, and molds that may cause off-flavors in your beer. Make certain to clean all equipment that comes in contact with your beer by following the directions below:

1. Fill clean keg with warm water to line mark 1 on the back, then add ½ pack (about 1 tablespoon) of No-Rinse Cleanser and stir until dissolved. Once dissolved, the solution is ready to use. Save the remaining ½ of No-Rinse Cleanser because you will need it for bottling.
2. Screw on lid and swirl the keg so that the cleaning solution makes contact with the entire interior of the keg, including the underside of the lid. Note that the ventilation notches under the lid may leak solution. Allow to sit for at least 2 minutes and swirl again.
3. To clean the spigot, open it fully and allow liquid to flow for 5 seconds and then close
4. Pour the rest of the solution from the keg into a large bowl. Place your spoon/whisk, can opener and measuring cup into the bowl to keep them cleaned throughout the brewing process. Leave them immersed for at least 2 minutes in cleaning solution prior to using.
5. After all surfaces have been thoroughly cleaned, do not rinse or dry the keg or utensils. Return lid to top of keg, proceed immediately to brewing.

STEP 2: BREWING

Brewing beer is the process of combining a starch source (in this case, a malt brewing extract) with yeast. Once combined, the yeast eats the sugars in the malt, producing alcohol and carbon dioxide (CO₂). This process is called fermentation.

1. Add all 3 packets of grains between 2 of the muslin sacks and tie them closed so that the grains can flow freely within the sacks. Set aside.
2. Add 8 cups of water to a 2 gallon or larger boil pot. Begin heating the water to a range of 155-160 degrees F and hold, it at this range. Next, add the grain sacks into the water, and maintain the 155-165 temp for 30 minutes.

3. While you wait, add one packet of Columbus hops to one of the hopsacks and tie it closed so that the hops have room to expand and flow freely within the sack. Set aside
 4. After the 30-minute steep has completed, turn off the heat and remove the grain sacks from the pot and place them into a colander to drain, allowing the runoff to flow back into the pot, and rinse the grain with one cup of hot water (around 160 degrees), letting the excess runoff flow back into your pot. DO NOT squeeze the grain sacks. Once drained, discard the grain sacks.
 5. Next, open the can of Cooper's light UME and pour the contents into the grain water and stir to combine.
 6. Bring this mixture to a low rolling boil (stirring occasionally to avoid scorching).
 7. Once boiling, add in your hop sack containing the Columbus hops. (This hopsack will boil for a total of 60 minutes)
 8. While you wait, add the second packet of Columbus hops to the hopsack and tie it closed so that the hops have room to expand within the sack. Set aside.
 9. Once your first hopsack has been boiling for 30 minutes, add in the second hopsack (this sack will boil for 30 minutes)
 10. While you wait, add the Crystal pellet hops to the last hopsack and tie it closed so that the hops have room to flow freely within the sack. Set aside
 11. After your second hopsack has boiled for 10 minutes, add in the final hop sack and allow the entire mixture to boil for 20 more minutes, stirring occasionally to avoid scotching. Then remove pot from the heat.
 12. Fill your fermenter with cold water to mark 1 on the back. If using any other fermenter this would be approximately 1 gallon of water.
 13. Pour the wort including the hop sacks, into your fermenter, and then bring the volume of the fermenter to mark 2 by adding more cold water. (If you have a different fermenter top it off to 8.5 liters)
 14. Stir your wort mixture vigorously with your sanitized spoon or whisk.
 15. Sprinkle the W-34/70 yeast packet into the keg, and screw on the lid. Do not stir.
- Put your fermenter in a location with a consistent temperature between 68° and 72° and out of direct sunlight. Ferment for 14 days.
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STEP 3: BOTTLING & CARBONATING

After 14 days, taste a small sample to determine if the beer is fully fermented and ready to bottle. If it tastes like flat beer, it is ready. If it's sweet, then it's not ready. Let it ferment for 3 more days (17 total). At this point, it is time to bottle. Do not let it sit in the fermenter for longer than 24 days total.

1. When your beer is ready to bottle, fill a 1-gallon container with warm water, then add the remaining ½ pack of the No-Rinse Cleanser and stir until dissolved. Once dissolved, it is ready to use
2. Distribute the cleaning solution equally among the bottles. Screw-on caps (or cover with a metal cap if using glass bottles) and shake bottles vigorously. Allow to sit 10 minutes, then shake the bottles again. Remove caps and empty all cleaning solutions into a large bowl. Use this solution to clean any other equipment you may be using for bottling. Do not rinse.
3. Add 2 Carbonation Drops to each 740-mL bottle. For 1-liter bottles, add 2 ½ drops; for ½-liter bottles add 1 drop. Alternatively, you can add table sugar using this table as a guide.
4. Holding the bottle at an angle, fill each bottle to about 2 inches from the bottle's top.
5. Place caps on bottles, hand tighten, and gently turn the bottle over to check the bottle's seal. It is not necessary to shake them.
6. Store the bottles upright and out of direct sunlight in a location with a consistent temperature between 70°-76°F or 21°-24°C. Allow sitting for a minimum of 14 days. If the temperature is cooler than suggested it may take an additional week to reach full carbonation.

TIP FROM OUR BREWMASTERS

After the primary carbonation has taken place your beer is ready to drink. We recommend putting 1 bottle in the refrigerator at first for 48 hrs. After 48hrs. give it a try and if it is up to your liking put the rest of your beer in the fridge. If it does not taste quite right, leave the bottles out at room temp for another week or so. Keep following this method until your brew tastes just how you like it.

This process is called conditioning and during this time the yeast left in your beer can help clean up any off-flavors. Almost everything gets a little better with time and so will your beer