





# **Royal Juice NEIPA**

#### What You Get

- 1 Can of Coopers Light Malt (UME)
- 1 Packet of DME Pale
- 1 Packet of Pilsen Malt
- 1 Packet Of Carapils Malt
- 1 Packet of Oat Flakes
- 2 Packets of Simcoe Hops
- 1 Packet of Mosaic Hops
- 2 Packets of Amarillo Hops
- 5 Muslin Hop Sacks
- 1 Packet of S-33 Ale Yeast
- 2 Packets of No-Rinse Cleanser

#### **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 the 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 the solution. Allow to sit for at least 2 minutes and swirl again.
- 3. To clean the spigot, open it fully and allow the 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 a cleaning solution prior to use.
- 5. After all, surfaces have been thoroughly cleaned, do not rinse or dry the keg or utensils. Return lid to the top of the 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 the grains into one of the muslin sacks and tie it closed so that the grain can flow freely within the sack. Set aside.
- 2. Add 8 cups of water to a 1 gallon or larger boil pot. Begin heating the water to a range of 155-165 degrees F and hold, at this range. Next, add the grain sack into the water, and maintain the 155-165 temp for 30 minutes.
- 3. While you wait, add one of each packet of Simcoe hops and Amarillo hops, together, to the second hopsack 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 sack from the pot and place it 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 sack. Once drained, discard the grain sack.
- 5. Increase the temperature of the grain water to med/high and sprinkle in the packet of DME and stir to dissolve. Continue stirring constantly to keep the rising foam in check. If it begins to rise, pull the pot off the heat, and lower the temperature slightly, continuing to stir (about 5 to 20 minutes depending on your particular conditions), until you hit the hot break which is where the foam has subsided, and the solution is now boiling.
- 6. Once the hot break has subsided and the mixture is at a low rolling boil. Add in the can of Cooper's Light UME and continue stirring, to avoid scorching.
- 7. Next add in the sack of Amarillo and Simcoe hops that you prepared, earlier. This hop sack will remain in your boil for a total of 60 minutes.
- 8. While you wait, add the second packet of Simcoe hops to another hops sack and tie it closed so that the hops can flow freely within the sack. Set aside.







- 9. After 30 minutes have passed, from the first hop addition, add in the Simcoe hops and continue to boil for 30 more minutes.
- 10. Once the 30 minutes have passed (60 minutes total between the two-hop additions) remove the pot from the heat. This unfermented mixture is called "wort".
- 11. Fill your fermenter with cold tap water to mark 1 on the back. If using any other fermenter this would be approximately 1 gallon of water.
- 12. Pour the wort 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 with cold water to the 8.5-liter mark).
- 13. Stir your wort mixture vigorously with your sanitized spoon or whisk.
- 14. Sprinkle the S-33 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 78° F (20°-25° C), and out of direct sunlight. Ferment for 14 days, total.

### **STEP 3: Dry-Hopping**

Dry hopping is the process of adding hops to a beer which will impart more hop flavor and aroma to your beer.

- 1. On day 7 of fermentation: Sanitize another hopsack by boiling it for 5 minutes in water and wringing it out or by washing it in the no-rinse cleanser. Then, add half a packet of Mosaic hops and half a packet of Amarillo to the sanitized hop sack and add it into the fermenter. Place the remaining half packets of hops into an airtight container and refrigerate until day 10 of fermentation.
- 2. On day 10 of fermentation: sanitize the last hops sack and add the two remaining half packets of hops, into the sack, and add it to the fermenter for 4 more days. (14 days total)

## STEP 4: 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 solution into a large bowl. Use this solution to clean any other equipment you may be used for bottling. Do not rinse.
- 3. Add 2 <u>Carbonation Drops</u> 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 <u>this table as a guide</u>.
- 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.