



# Nuclear Santa Hoppy Red Holiday Ale

Perhaps you've been deluding yourself that Santa makes his world tour with some magic dust, a flick of the reins and a cheerful "Giddyup!", but the truth is, Santa has fueled his sleigh with a glowing heap of Uranium-235—and he keeps his pint full of this delicious hoppy holiday red ale.

Okay, so perhaps he is operating heavy nuclear machinery under the influence, and perhaps he is hallucinating in a haze of humulone madness from this juicy, hop-bomb flavor explosion of citrus, orange, tropical fruit, lime and pine—but who cares, because what exactly do you think those reindeer are for? They're not going to do something stupid like "fly into a tree" and "leave the scene of a crime," so you can rest assured that good ol' Santa will make his rounds and fill the stockings of all those good little hop-heads worldwide, and with a clink of his pint, you'll secretly know what makes Santa's nose red and drives his cheery, holiday disposition!

## Just the Facts, Ma'am:

Original Specific Gravity: 1.056 - 1.060  
Final Specific Gravity: 1.010 - 1.014  
Alcohol by Volume: 6.0%  
Color: 16 SRM (Glowing nuclear red!)  
International Bittering Units: 42  
Time to Awesome Drinkability: 5 Weeks!

Your recipe kit includes the freshest malt, hops and yeast. If you are not going to brew your recipe immediately, it is important to refrigerate your yeast and hops. If your recipe includes bags of malt syrup, these should be refrigerated too. Bags of dried malt do not require refrigeration. Also, all grains are best stored at dry room temperature.

## Ingredients:

### Fermentables:

#### Malt Bag 1

3 lbs. Munich Malt Extract Syrup  
2 lbs. Wheat Malt Extract Syrup  
1 lbs. Light Malt Extract Syrup

### Grains & Wort Additives:

12 oz Cara Ruby Malt (Crushed)  
8 oz Melanoidin Malt (Crushed)  
2 oz De-Husked Carafa II Malt (Crushed)  
1 lb Natural Raw Sugar

### Hop Usage Chart

1 Azzaca  
1 Centennial  
1 El Dorado  
1 Mandarina Bavaria  
1 Mosaic  
1 Pacific Jade

### Hops:

¼ oz El Dorado Hops (Bittering, 65 Minutes)  
¼ oz Mosaic Hops (Bittering, 65 Minutes)  
¼ oz Pacific Jade Hops (Bittering, 65 Minutes)  
¼ oz Saaz Hops (Flavor & Aroma Hop, 5 Minutes)  
¼ oz Centennial Hops (Flavor & Aroma Hop, 5 Minutes)  
¼ oz Mosaic Hops (Flavor & Aroma Hop, 5 Minutes)  
¼ oz Azacca Hops (Flavor & Aroma Hop, 1 Minute)  
¼ oz Centennial Hops (Flavor & Aroma Hop, 1 Minute)  
¼ oz Azacca Hops (Flavor & Aroma Hop, After-the-Boil Steep, 10 Minutes)  
¼ oz Mosaic Hops (Flavor & Aroma Hop, After-the-Boil Steep, 10 Minutes)  
½ oz El Dorado Hops (Flavor & Aroma Hop, After-the-Boil Steep, 10 Minutes)  
½ oz Mandarina Bavaria Hops (Flavor & Aroma Hop, After-the-Boil Steep, 10 Minutes)  
½ oz Saaz Hops (Flavor & Aroma Hop, After-the-Boil Steep, 10 Minutes)  
¼ oz Azacca Hops (Dry Hop, Flavor & Aroma)  
¼ oz El Dorado Hops (Dry Hop, Flavor & Aroma)  
¼ oz Mosaic Hops (Dry Hop, Flavor & Aroma)  
¼ oz Saaz Hops (Dry Hop, Flavor & Aroma)  
½ oz Centennial Hops (Dry Hop, Flavor & Aroma)  
½ oz Mandarina Bavaria Hops (Dry Hop, Flavor & Aroma)

### Yeast:

Liquid Yeast: Wyeast 1318 London III Ale or  
Wyeast 1272 American II Yeast

Or

Dry Yeast: Mangrove Jack's M36 Liberty Bell Ale Yeast or  
Lalbrew Nottingham Dried Ale Yeast

### Brewing Supplies & Flavors:

1 Large Muslin Bag  
5 oz Priming Sugar

## Brew Day Checklist:

On brew day, you will require the following equipment:

- Brew Pot - A 5 gallon brew pot is ideal, but never use a pot that is less than 4 gallons.
- Long-handled spoon or paddle for stirring the boiling wort.
- Primary Fermenter - A 6½ gallon (or greater) food-grade plastic bucket with lid, or a 6½ glass carboy.
- Airlock
- Stopper (if using a carboy)
- Funnel (if using a carboy)
- Hydrometer (Optional, if you want to measure your specific gravity)
- Sanitizing Solution
- Scissors
- Siphon Setup

When you rack your beer into a secondary fermenter, you will require the following equipment:

- 5 gallon carboy
- Airlock
- Stopper
- Siphon Setup

You can still brew this recipe using a single primary fermenter, but due to all of the dry hops added to the fermented beer, most brewers find using a secondary fermenter an easier option for handling the hops.

## The Magical Procedure:

### Liquid Yeast Activation Before Brewing:

If you are fermenting with liquid yeast, you must activate the yeast packet before it is ready to pitch. Always check the manufacturing date stamped on the yeast packet. Yeast that is less than 1 month old may be activated on brew day. A yeast that is more than 2 months old may require additional preparation time. Always make sure your yeast has been properly activated before using. For more information about yeast starters, please visit the 'Frequently Asked Questions' section on boomchugalug.com.

### Time to Brew!

Total Boiling Time: 65 Minutes. While your wort is boiling, you should sanitize your fermentation equipment, such as your primary fermenter, airlock, scissors, stopper, etc.

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Flip the sheet to continue the magic. Also, this is a good time to pour a cold one! →





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Page 2....Wow, this is good stuff. I wish there could be more!

After you have sanitized your fermenter, fill it with 2 gallons of cold water, into which you will later add your hot boiled wort.

Note 1: Before beginning the recipe, divide out the required hop quantities for each scheduled addition. To measure ¼ oz of hops, simply divide each 1 oz bag into two equal halves. Then take half of the half. This accuracy is adequate for brewing this recipe. It's that simple. You can place your dry hop additions back in the hop bags and freeze them until dry-hopping.

Note 2: This recipe has malt syrup additions at two different times during the boil. Please read all of the instructions before beginning.

Note 3: Because of the large quantity of hops used in this recipe and the corresponding risk of fermentation foam-over, we recommend using a blow-off tube during the primary fermentation.

1. Place the crushed grains in the muslin bag and add to 2½ gallons of water. Measure the water volume carefully to ensure you extract the proper amount of hop bitterness during the boil.
2. Heat water until the temperature is between 150° and 170°F. Steep the grains between this temperature range for 30 minutes. Steeping longer than 30 minutes does not hurt.
3. Remove and discard the grains. Add 4 cups of malt extract syrup (See Note 4 below). To prevent scorching, stir until all of the malt is dissolved. Then bring this mixture to a boil. Watch for boilovers!

Note 4: Measuring 4 cups (32 fluid ounces) of malt syrup is easy! Make sure you use a measuring cup that holds at least 4 cups (32 fluid ounces). With scissors, cut off a SMALL corner of the malt syrup bag and then slowly squeeze the 4 cups of syrup into the measuring cup. If you are a little over or under, it's no problem. Before you add this malt syrup to your brew pot in Step 3, you may soften it by placing the measuring cup in the microwave and warming it for 30 seconds. Also, before Step 6, be sure to store the opened bag of syrup in an upright position (duh!). We find that propping it upright in a round plastic food storage container (like a Tupperware) to be the easiest.

4. When boiling begins, add ¼ oz each of El Dorado, Mosaic and Saaz hops. Boil these hops for the entire 65 minutes.
5. With 5 minutes remaining in the 65 minute boil, pause the brew timer, remove the kettle from the heat. Add the remaining malt extract and the natural raw sugar. Stir until dissolved and bring the wort back to a boil. When boiling begins again, add ¼ oz each of Azacca, Centennial and Mosaic hops. Boil the wort for the last 5 minutes.
6. With 1 minute remaining in the 65 minute boil, add ¼ oz each of Azacca and Centennial hops.
7. At the end of the 65 minute boil, remove kettle from the heat. Add the following hop additions: ¼ oz each of Azacca and Mosaic Hops. Also add ½ oz each of El Dorado, Mandarin Bavaria and Saaz hops. Place cover over kettle and steep for 10 minutes.

Note: during this steep, it is important to cover the kettle to prevent loss of the delicate and volatile hop oils.

## Chill out, Man! (Chill the Wort)

1. At the end of the 65 minute boil, cool the wort to approximately 75°F as quickly as possible. With extract brewing, the easiest way to quick-chill the wort is to place your brew pot into a sink full of ice. For more information about cooling your wort quickly, please see 'Fast Wort Chilling' in the 'Frequently Asked Questions' section on our website.
2. Add your chilled wort to the 2 gallons of water already in your fermenter.
3. Add any extra water needed to bring the total volume in your fermenter to 5 gallons.
4. If you would like to measure the specific gravity, now is a good time. To get an accurate reading, it is important to make sure all of the heavy wort extract you added to the fermenter has been completely mixed in the water.

## Pitch the Yeast! (Into the Wort, But Not Out the Window!)

1. When your wort has cooled to 75°F (70° - 78°F is okay), aerate the wort before adding the yeast. Simply close the fermenter and swirl around to mix in oxygen. If you are swirling a carboy, it is helpful to place the carboy on a thick, folded blanket to avoid damaging the vessel.
2. After aerating, pitch (add) the yeast. Use the sanitized scissors to cut open the yeast packet. If you are using liquid yeast, sanitize the pack before opening. If you are using dried yeast, simply sprinkle the yeast over the wort. No mixing is necessary with dried yeast.

3. Close the fermenter, attach the airlock, and keep the fermenter warm (between 70° - 78°F) until you see fermentation beginning, such as the airlock bubbling once every 30 seconds. Wrapping the fermenter with a blanket is an easy way to keep the fermenter warm.

## Primary Fermentation:

There are several ways to know when fermentation has begun. First, you will begin to see bubbling through the airlock. If you are using a carboy, then you will usually see the yeast begin to form a layer over the beer's surface.

1. Once fermentation begins, move the fermenter to a room with the proper temperature. The ideal temperature to ferment this beer is between 60° - 72°F. Do not let the temperature drop below 60°F. If you do, fermentation may stop too soon. That's a bummer, man.
2. Active fermentation may take as long as two weeks after pitching the yeast, although fermentation may finish in 3 to 5 days.

## Secondary Fermentation:

After about one week, fermentation will begin to slow. This is a good time to siphon the beer into the 5 gallon glass carboy. If you choose not to use a secondary fermenter, then add the dry hops to the primary fermenter.

1. Dry hop: When siphoning your beer into the secondary, add the following hops: ¼ oz each of Azacca, El Dorado, Mosaic and Saaz hops. Also add ½ oz each of Centennial and Mandarin Bavaria hops. Just cut 'em open and dump 'em in. Dude, that was easy!
2. Allow the beer to rest in the secondary for 1 - 2 weeks before bottling.

## Time to Bottle!

There are several ways to tell when fermentation is complete (besides your drooling). If you correctly pitched the yeast and fermentation quickly began, and if the beer fermented vigorously and the fermenter was always within the correct temperature range (60° - 72°F), then fermentation should finish in two weeks or less. You should see virtually no activity in the airlock. For example, if the airlock only bubbles once a minute or longer, then fermentation should be complete. If you are unsure if fermentation has ended, you may use your hydrometer to measure the specific gravity. If your specific gravity does not change after two or more days, then fermentation is complete and you are ready to bottle!

1. Before bottling, sanitize your bottling bucket, auto siphon (or racking cane), hose, bottle filler, caps and bottles. Glass bottles may be sanitized one day in advance by baking them in the oven. More information about baking your bottles can be found under 'Baking Beer Bottles' in the 'Frequently Asked Questions' section on our website.
2. Dissolve 5 ounces (weight) or 3/4 cup of priming sugar (dextrose / corn sugar) in 16 oz water. Boil for 5 minutes.
3. Pour the sugar solution into the bottling bucket, and siphon in the beer. Siphon carefully, trying to minimize splashing and aeration of the beer. Also when siphoning, be sure to leave behind the sediment at the bottom of the fermenter. When done siphoning, gently stir the beer in the bucket to make sure all of the sugar solution has been dissolved. Your racking cane makes a convenient stirring wand.
4. Elevate your bottling bucket, and attach your siphon hose and bottle filler to the bucket's spigot. Fill the bottles to about 1 inch from the top, and cap each bottle.

## Carbonation and Maturation!

Now that your bottles are primed and capped, the remaining yeast will undergo a second fermentation in the bottle whereby they eat the priming sugar and produce carbon dioxide, which is trapped in the bottle to produce the carbonation. While your beer is carbonating, it will also be clearing and maturing - the young, rough undeveloped flavors develop into your magical beverage! Your wondrous elixir reaches awesome drinkability about 6 weeks from the day you began the brew, but don't be surprised if it keeps getting better as time goes on.

1. Place your bottles in a dark place at room temperature (62°F - 75°F), and wait at least two weeks for the beer to carbonate. It is important to keep the beer between 62°F - 75°F for carbonation to develop. If the beer cools below 62°F, it may not properly carbonate. In brewing, this is officially known as the buzzkill. Keep it warm, let it carbonate!
2. Once your beer is carbonated, you may store it in a cool place. Unfiltered home-brew is unfiltered, and unfiltered beers will improve with time. If your young beer is rough or yeasty, these flavors will mellow over time. Cheers!

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