

The Little Green Witch Apothecary

MicroHomebrew Kit

The easy-to-use, multipurpose, one-quart, microhomebrew kit for the homebrew curious



India Pale Ale

- **Original Gravity (OG):** 1.060 to 1.064
(OG: Measured with a hydrometer, OG gives us the density of our brew, or in simpler terms, it's a number that indicates the amount of fermentable sugars, i.e. how much potential alcohol this homebrew can produce)
- **Final Gravity (FG):** 1.010 to 1.014
(FG: What's left after the yeast finishes its work)
- **Alcohol by volume (ABV):** about 6.5%
(ABV: The amount of alcohol produced in fermentation)
- **Time:** About 45 minutes start to finish
- **Yield:** One quart of beer

What's in the Box

- Mason jar with lid/screw band
- Fermentation lid
- Screen lid
- Paper funnel
- Box with brewing ingredients
- 33 oz. amber grolsch bottle

Ingredients:

- 5.5 ounces of dry malt extract (DME)
- 30 grams specialty grains
- 1.4 grams Chinook hops (x2)
- 1.4 grams Cascade hops
- 1 gram ale yeast
- 12 grams priming sugar

What you'll need:

- A pot or saucepan (at least a 2-quart capacity and preferably stainless steel)
- A large bowl of ice that your saucepan can fit into to rapidly cool off your brew after the boil is complete (you can also use your kitchen sink for this purpose)
- A thermometer

Step-by-Step Brewing, Fermentation, and Bottling Instructions

Day 1: The Set-Up:

- Remove contents from box; place the amber grolsch bottle aside—you won't need it until bottling day.
- Remove brewing ingredients from box.
- Measure out and begin to heat 5 and 1/4 cups of water in your saucepan.

Time to Brew:

- Heat water to between 150 and 165 degrees and add speciality grains (labeled: IPA Grains) tea bag; steep grains for 15 minutes while maintaining a water temperature between 150 and 165 degrees.



- After 15 minutes, remove grains bag and bring your brew to a boil.



- As the water nears boiling temperature, remove it from heat and add the dry malt extract (DME) (Package #1). Stir continuously to prevent the DME from burning on the bottom of the saucepan. A thick foam will form once the DME is added. Carefully return the saucepan to heat, bring to a boil, and continue stirring. Adjust the temperature and/or periodically remove the saucepan from the heat to prevent your brew from boiling over. After 3 to 5 minutes, the foam will begin to subside, which is your cue to begin next steps.



(Pro Tip: DME reacts quickly to steam and can clump/cling to the side of the bag when adding to your brew. Consider first pouring the DME into a coffee mug and then pour the DME into the brew. Any DME that remains in the coffee mug can be managed by simply dipping the mug into your brew.)

- Once the foam has subsided, bring your brew (now known as wort) to a slow, gentle boil. If the boil is too vigorous, more water will evaporate than intended; too slow and the flavors from your ingredients may not fully develop.
- Set a timer for 15 minutes.
- Stir Chinook hops tea bag (Package #2) into the wort and **begin timer**. Give the wort a stir every couple of minutes of so. Maintain a gentle boil.
- After 5 minutes (once your timer counts down to the 10-minute mark), stir in the second bag of Chinook hops (Package #3). Continue to stir the wort occasionally (every two minutes or so) while maintaining a gentle boil.
- After another 5 minutes (once your timer counts down to the 5-minute mark), add the bag of Cascade hops (Package #4). Continue to stir the wort occasionally while maintaining a gentle boil.



- As your timer continues to count down, take a moment to prepare for the rapid cooling phase of the brewing process. Clean the mason jar, lid, fermentation lid, and screw band – use hot water and a non-fragrant dish soap for best results. Rinse thoroughly with hot water and set aside on a clean towel. In addition, prepare a bowl with ice water (or fill your sink with ice water).

The Cool Down and Fermentation Prep:

- Once your timer goes off, remove your saucepan from the heat. Carefully remove the three hops bags and discard. Next, set your saucepan into the ice water. While boiling is key for developing flavor, now your goal is to cool the wort as rapidly as possible. With the saucepan in ice water, stir the wort very gently to hasten the cooling process. As heat is transferred from the saucepan into the cold water, the ice will rapidly melt. Add more ice as needed to keep the water cool enough to facilitate a rapid cool down. It will take about 5 to 7 minutes for the wort to reach the mid-70's, which is an ideal temperature for pitching the yeast. You can use a thermometer to verify the temperature of your wort; if you don't have a thermometer, cool for the full 7 minutes for peace of mind.



- Once your wort is cool, it's time to move onto the fermentation phase by first transferring the wort from the saucepan into your mason jar, but you'll want to filter out any grains or hops that may have escaped during the brewing process. To do that, take your screw band and turn it upside down. Place the screen lid inside the screw band. Place the band/screen lid on top of the mason jar and then tip one side at a slight angle. Slowly pour the wort into the mason jar and fill to top (blue line) leaving about a half inch of space. Discard any leftover wort (there shouldn't be much leftover if you started with 5 and 1/4 cups of water). If you're a little short, go ahead and top off the wort with cold water.



- Next, you'll want to aerate the wort before pitching the yeast. Place the lid on the mason jar and screw down **tightly** with the screw band. Shake the wort for about 30 seconds.

Fermentation Phase:

- Once the wort is aerated, remove the lid. Sprinkle the yeast (in glass vial) over the top of the wort (no need to stir the yeast into the wort). Place the silicone fermentation lid on the mason jar and secure with the screw band.



- Set the mason jar in a dark area of your house that maintains a fairly constant temperature, e.g., a closet or cabinet. Total fermentation time is about 5 to 7 days. In the first several hours, you'll see a sediment layer, called trub, form at the bottom of the jar...this is normal. After about 24 hours (potentially longer if your house is cool or shorter if your house is hot), fermentation will begin. Note that alcohol and carbon dioxide are the byproducts of yeast consuming the sugars in the wort. A sure sign of fermentation will be small bubbles rapidly rising from the bottom of your mason jar. The silicone fermentation lid has an opening on the top that releases the carbon dioxide without letting outside air into the fermenter.



Time to Bottle:

- After 5 to 7 days, the bubbling will subside considerably and the trub layer will be well established at the bottom of your jar. This is your sign that it's time to bottle.
- Clean/rinse your grolsch bottle thoroughly with hot water, set aside.
- In a small bowl, combine the priming sugar (Package #5) with about a third of a cup of warm water. Stir the priming sugar until fully dissolved, set aside.
- Take your saucepan; clean and rinse well with hot water. Set aside.



- Remove the fermentation lid from your mason jar. Take the screen lid and secure in place with the screw band. Next, gently pour your beer into your saucepan. The screen will help prevent the trub from flowing into the saucepan. Some will get through, which is fine, but your goal is to separate the beer from the trub as much as you can.



- With the beer now in your saucepan, gently stir the priming sugar/water mix into your beer.



- Now you're ready to bottle. Place the paper funnel in the amber grolsch bottle and slowly begin pouring the beer into the bottle. After the beer is in, ideally you'll want about 2 or 3 inches of head space in the bottle. Add a small amount of water to bring the level up to the white line.



Conditioning:

- Secure the swing top cap. Place your bottled beer in a dark place at room temperature. Important: Do not refrigerate at this time. The priming sugar you added during the bottling process reinvigorates the yeast in your beer, producing a small bump in alcohol and, importantly, the carbon dioxide that will carbonate your beer. This process is called conditioning.

When Can I Drink My Beer?

- You'll be tempted to try your beer early, but best to wait at least two weeks before opening. Set a calendar reminder for something to look forward to! At the two-week point, it's o.k. to refrigerate your beer and enjoy your brew (longer conditioning will improve taste and carbonation even more). Once open, the carbonation usually holds up well for several days, should it last that long (ours rarely does).

I Drank All My Beer, Now What?

Your multipurpose, one-quart, microhomebrew beer kit can be used over and over again for beer making. Check out our selection of refill beer kits at www.littlegreenwitchapothecary.com.

In between brewing, your kit serves many functions to include:

- Making Little Green Witch Loose Leaf Tea (mason jar, lid, screen lid, screw band)
- A really big glass of water (mason jar)
- Dry or liquid storage (mason jar, lid, screw band)
- Other ferments (kombucha, kimchi, soda, etc.) (mason jar, fermentation lid, screw band)
- Making sprouts (mason jar, screen lid and screw band)
- Water decanter (grolsch bottle)
- Martini shaker (mason jar, lid, screen lid, screw band)
- Vase (mason jar)
- Paper weight (how sad, but we get it)
- Terrarium (if you decide to never drink or brew again)
- Other? Share your ideas with us!