



## ALL GRAIN ALE BREWING INSTRUCTIONS

### BERLINER WEISSE ADVANCED BREWING

**This recipe uses a combination of German ale yeast and Lactobacillus. Be cautious when using the same equipment to make other beers as you may unintentionally sour other beers**

Brewing all-grain recipes can be accomplished using many different methods. These instructions describe one of these methods. You will need the follow equipment:

- One of our Beer Equipment Start Kits
- Mash Tun
- Boil Kettle
- 48-50 Beer Bottles
- Bottle Caps
- All Ingredients for a Beer Recipe

#### STEP 1: CLEAN AND SANITIZE

Clean & sanitize your equipment using products such as One Step, Iodophor, & Star San. Use according to manufacture directions.

#### STEP 2: THE MASH

If you have liquid yeast with your recipe, remove the yeast from the refrigerator & set aside before you begin the brew. Heat 1.5 quarts of water per pounds of grain to approximately 160°F. Mix the grain that came with your kit in the water. The temperature of the mash should fall to the ideal temperature of 150°F to 155°F. Mash for 60 minutes. Towards the end of the mash, heat approximately 3 gallons of water in a separate pot to 170°F. This will be your sparge water.

#### STEP 3: SPARGING

Before you sparge, drain out about 2 quarts of the sugary liquid (also known as "wort") from the bottom of the mash tun and pour back on top of the grain. Next, begin draining the wort into a boil pot and start sparging on top of the grain with the hot sparge water. Continue to sparge and drain the wort until you have collected 6.25 to 6.5 gallons of wort in the boil pot. The amount of wort needed in your boil pot depends on how quickly your burner/pot system boils off wort during the boil.

#### STEP 4: THE BOIL

Bring the wort to a boil. Occasionally stir to prevent the wort from boiling over. Once the wort is boiling, stir in any additional sugars included in your kit (do not mix in priming sugar). Be careful not to burn any sugars on the bottom of the pot.

**Hop Additions:** Begin adding hops according to the schedule listed in your kit recipe instructions.

#### STEP 5: CHILL THE WORT

After the boil, you need to quickly cool your wort to under 80° F. Popular ways to chill your wort include placing smaller pots in

ice baths or using submersion style wort chillers. Once the wort has cooled, pour the wort into a sanitized primary fermenter (commonly a 6.5 gallon or 7.9 gallon plastic bucket). You may need top up the fermenter to 5.25 gallons with clean water if you ended up with less than 5.25 gallons after the boil. If you have a hydrometer, you can check the original gravity (OG) and write it down.

#### STEP 6: FERMENTATION

Stir well to aerate the wort before pitching your yeast & Follow one of the following 3 options:

**Option 1:** this option uses ale yeast & lactobacillus blends listed in Yeast Option 1. This is an easy way to make a berliner weisse. Open the packet of yeast and pour on top of the wort. Attach your lid and airlock and leave in primary fermentation for at least 12 weeks.

**Option 2:** this option uses German ale yeast first and then lactobacillus at a later date. To begin primary fermentation, open your German Ale yeast option listed on your recipe sheet in Yeast Option 2 and pour on top of your wort. Attach your lid and airlock and leave in primary fermentation for 3-4 days. After 3-4 days, open up the fermenter and add a Lactobacillus strain listed in Yeast Option 2. Attach your lid and airlock and leave in fermentation for at least 12 more weeks.

#### STEP 9: BOTTLING

If you have a hydrometer, take a gravity reading to verify that you have reached your final gravity (FG). Write down the final gravity. To calculate the actual alcohol content of the beer, subtract the FG from the OG and then multiply by 131.

Pour 2 cups of water in a sauce pan and bring to a boil. Add 4-5 ounce of priming sugar to the sauce pan and boil for a minute. Let the solution cool for a few minutes.

Next, pour the sugary solution into the plastic bucket (primary fermenter), and then siphon the beer from the secondary fermenter into the bucket so the sugary mixture can mix thoroughly with your beer. Be careful to not disturb the sediment on the bottom of the secondary fermenter.

Once the beer is in the bucket, place the bucket on a counter top. Attach the bottle filler to the end of the tubing. Siphon the beer while using the bottle filler to fill each beer bottle. When you remove the filler, the level of beer will be appropriate for capping. Cap each bottle and store in a dark place at room temperature. You can move your beer to the refrigerator after the beer carbonates (typically 10-14 days).