


High Gravity Fermentations



IBU's: 23	OG: 1.050- 1.052	FG: 1.011- 1.13
ABV: 4.9%-5.4%	Ferm Temp: 64°-77°F	

<u>ABV% Calculator</u>	
(OG - FG) x 131.25 = ABV%	
(____ * - ____ **) x 131.25 = ____ %	
*OG from Step #8 **FG from Step #10	

<u>Recommended Bottling Day Equipment</u>	
Bottling Bucket	12 oz. Bottles (appx. 53)
Siphon Setup	Bottle Brush
Bottle Filling Wand	Bottle Caps
Capper	Sanitizer

<u>Included Equipment</u>	
Muslin Hop Bag	Muslin Grain Bag

<u>Recommended Brew Day Equipment</u>	
4 Gal. Brew Pot	6.5 Gal. Fermenter
Hydrometer	Thermometer
Long Spoon or Paddle	Cleanser
Sanitizer	Airlock

<u>Glossary</u>	
OG	– Original Gravity
FG	– Final Gravity
DME	– Dried Malt Extract
LME	– Liquid Malt Extract
ABV	– Alcohol by Volume
IBU	– International Bittering Units

INGREDIENTS

FERMENTABLES

6.0 lbs Golden Light LME
1.0 lb. Brewers Malt (Packaged with specialty grains)

SPECIALTY GRAINS

7 oz Weyermann Dark Munich
7 oz Weyermann Light Munich

HOPS

0.50 oz Perle (Bittering)
0.50 oz Perle (Flavoring)
1.0 oz Crystal (Flavoring)

FININGS 1 tsp. Irish moss

YEAST

Safale US-05

BREW DAY SCHEDULE

1. Add bittering hops ____:(time)
 2. Boil 40 minutes
 3. Add flavoring hops and Irish moss ____:(time)
 4. Boil 15 minutes
 5. **Add remaining malt extract** ____:(time)
 6. Boil 5 minutes
 7. Terminate boil ____:(time)
- Total Boil Time: 60 Minutes - Continue to Step #7

Recommended Procedures

BREW DAY (Date ____/____/____)

1. **READ:** Read all the recommended procedures before you begin.
2. **ACTIVATE YEAST:** If using Wyeast liquid yeast, activate the yeast at least 5 hours prior to pitching. Imperial yeast should be removed from the fridge and brought to room temperature.
3. **SANITIZE:** Thoroughly clean and sanitize ALL brewing equipment and utensils that will come in contact with any ingredients, wort or beer.
4. **STEEP GRAINS:** Place enough water into a pot to cover specialty grains. Heat to 148°. Pour crushed grains into grain bag and tie a loose knot at the top of the bag¹ and place in water. Steep for 30 minutes. DO NOT BOIL THE GRAINS. Remove bag and allow it to drain into the pot (do not squeeze). Sparge (slowly run water through) the grains with 2 gallons of 168° water. Discard the grain filled bag. Your water is now wort.
5. **START BOIL:** If needed, add enough water to bring to 3 gallons. Bring your wort to a gentle, rolling boil. **Add 1/2 of the malt extract**². Continuously stir the extract into the wort as it returns to a gentle, rolling boil³.
6. **ADD HOPS AND INGREDIENTS**⁴: Using the provided **BREW DAY SCHEDULE**, note the times to add hops and other ingredients. Hops are placed in the provided hop bag and is clipped to the side of the pot. Do not tie shut as the same bag will be used for each hop addition. Be careful not to let the wort boil over the pot. Continue the gentle, rolling boil. Irish moss is thrown directly into the pot.
7. **COOL WORT & TRANSFER:** Cool the wort down to approximately 70°F by placing the brew pot in a sink filled with ice water⁵. Pour or siphon wort into a sanitized fermenter. Avoid transferring the heavy sediment (trub) from the brew pot to the fermenter.
8. **ADD WATER:** Add enough clean water (approx. 64° - 72°F) to the fermenter to bring your wort to approximately 5 gallons. Thoroughly stir the water into the wort.

Be careful not to add a volume of water that will cause the wort to fall outside of the OG range specified in the BREW STATS⁶. Once you are satisfied your wort is at the proper volume and within the OG range, record the OG in the ABV% CALCULATOR (bottom right on page 1).

9. **PITCH YEAST:** If using liquid yeast open package and pour over the top of the wort surface. If using a dry yeast sprinkle the contents of the yeast sachet over top of the entire wort. Firmly secure the lid onto the fermenter. Fill your airlock halfway with water and gently twist the airlock into the grommetted lid. Move fermenter to a dark, warm, temperature stable area ((Refer to recommended fermentation temperature).

FERMENTATION

10. **MONITOR & RECORD:** The wort will begin to ferment within 24 hours and you will notice CO2 releasing (bubbling) out of the airlock. Within 4-6 days bubbling will slow down. When bubbling has stopped completely take a hydrometer reading⁹. Fermentation is complete when hydrometer readings taken 3 days apart remain the same. Once fermentation is complete notate the FG reading and record it in the ABV% CALCULATOR.

(High Gravity recommends doing a two-stage fermentation)

BOTTLING DAY (DATE __/__/__)

11. **READ:** Read all of the recommended procedures before you begin.

12. **SANITIZE:** Thoroughly clean and sanitize ALL brewing equipment and utensils that will come in contact with any ingredients, wort or beer.

13. **PREPARE PRIMING SUGAR:** In a small saucepan dissolve priming sugar into 2 cups of boiling water for 5 minutes. Pour this mixture into a clean bottling bucket. Carefully siphon beer from the fermenter to a bottling bucket. Avoid transferring any sediment. Stir gently for about a minute.

14. **BOTTLE:** Using your siphon setup and bottling wand, fill the bottles⁸ to within approximately one inch of the top of the bottle. Use a bottle capper to apply sanitized crown caps.

15. **BOTTLE CONDITION:** Move the bottles to a dark, warm, temperature-stable area (approx. 64° - 72°F). Over the next two weeks the bottles will naturally carbonate. Carbonation times vary, be patient.

BREW TIPS

¹The grains should not be compacted inside the bag. Grains should steep loosely allowing the hot water to soak into all of the grain evenly.

²Run LME under hot water to allow the extract to pour easier.

³Pay careful attention that the extract does not accumulate and caramelize on the bottom of your brew pot.

⁴When consumed, hops can cause malignant hyperthermia in dogs, sometimes with fatal results.

⁵To avoid bacteria growth cool as rapidly as possible. Do not add ice directly to the wort. Alternatively, you can use a brewing accessory like a Wort Chiller.

⁶Use a sanitized hydrometer while adding water to monitor the SG.

⁷Consider transferring your beer to a secondary carboy (*required for dry hopped beers*), see “Two-Stage (Secondary) Fermentation” see sidebar.

⁸Make sure bottles are thoroughly clean. Use a bottle brush if necessary to remove stubborn deposits. Bottles should be sanitized prior to filling.

⁹ Sanitize hydrometer before taking readings.

Two-Stage (Secondary) Fermentation

High Gravity recommends brewers practice a two-stage fermentation. This will allow your finished beer to have more clarity and an overall better, purer flavor. (*This step is necessary when beers require dry hopping.*)

All you need is a 5-6 gallon carboy, drilled stopper, airlock and siphon setup to transfer the beer. You will also need to monitor and record the SG with your hydrometer when the beer is in the ‘primary’. When the fermentation slows (5-7 days), but before it completes, simply transfer the beer into the carboy and allow fermentation to finish in the ‘secondary’. *If kit contains dry hops they should be added to the provided grain bag and placed in the carboy for the remainder of the fermentation.* Leave the beer for about two weeks and then proceed to Bottling Day. Consult High Gravity to learn more about this technique.

(SECONDARY RACK DATE __/__/__)