

High Gravity Fermentations



INGREDIENTS

FERMENTABLES

12.0 lbs Pilsen Light LME
1.5 lb Avangard Pilsner (Packaged with specialty grains)

SPECIALTY GRAINS

1.25 lb Cara Munich III
8 oz Caravienne
8 oz Carafoam
2 oz Carafa III
4 oz Honey Malt

OTHER ADDITIONS

1 lb Dark Candy Syrup D-90


HOPS

2.00 oz Celeia (Bittering)
0.50 oz Hersbrucker (Bittering)
0.50 oz Celeia (Flavoring)
0.25 oz Hersbrucker (Flavoring)
0.50 oz Celeia (Finishing)
0.25 oz Hersbrucker (Finishing)

FININGS 1 tsp. Irish moss

YEAST

Wyeast 1388 or
Imperial B48 Triple Double

IBU's: 25	OG: 1.113- 1.110	FG: 1.019- 1.021
ABV: 11.4%- 12.1%	Temp: 64°-80°F	

Recommended Brew Day Equipment

4 Gal. Brew Pot 6.5 Gal. Fermenter
Hydrometer Thermometer
Long Spoon or Paddle Cleanser
Sanitizer Airlock

Included Equipment

2 Muslin Grain Bag (use one for post fermentation dry spicing)
1 Muslin Hop Bag

BREW DAY (Date ____/____/____)

- READ:** Read all of the recommended procedures before you begin.
- ACTIVATE YEAST:** If using Wyeast liquid yeast, activate the yeast at least 5 hours prior to pitching. If using other liquid yeasts, remove from refrigeration and bring to room temperature.
- SANITIZE:** Thoroughly clean and sanitize ALL brewing equipment and utensils that will come in contact with any ingredients, wort or beer.
- STEEP GRAINS:** Place enough water into a pot to cover specialty grains. Heat to **150°**. 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.
- START BOIL:** If needed, add enough water to bring to 3 gallons. Bring your wort to a gentle, rolling boil. **Add 1/4 of the malt extract².** Continuously stir the extract into the wort as it returns to a gentle, rolling boil³.

Glossary

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

Recommended Bottling Day Equipment

Bottling Bucket 12 oz Bottles (appx. 53)
Siphon Setup Bottle Brush
Bottle Filling Wand Bottle Caps
Capper Sanitizer

ABV% Calculator

$(OG - FG) \times 131.25 = ABV\%$
 $(\text{____} * - \text{____} **) \times 131.25 = \text{____}\%$
*OG from Step #8
**FG from Step #10

BREW DAY SCHEDULE

- Add bittering hops ____:____ (time)
 - Boil 45 minutes
 - Add Flavoring Hops and Irish moss ____:____ (time)
 - Boil 10 minutes
 - Add remaining Malt Extract and Dark Candy Syrup** ____:____ (time)
 - Boil 3 minutes
 - Add Finishing Hops ____:____ (time)
 - Terminate boil and remove hops ____:____ (time)
- Total Boil Time: 60 Minutes
Continue to Step #7

6. **ADD HOPS AND INGREDIENTS**⁴: Using the provided **BREW DAY SCHEDULE**, place hops the provided hop bag and clip 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. Note the time for each addition. Continue the gentle, rolling boil.
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, temperature stable area.

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 the bubbling will slow down until you see no more CO2 being released. When fermentation is complete (no bubbles for 48 hours) take a FG reading with a sanitized hydrometer and record it in your ABV% CALCULATOR.

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.

BIAB Instructions

Mash 22 lbs Brewers Malt with specialty grains in 33 quarts of water to get a single infusion mash of 150° F for 60 minutes. Remove grains and drain. Bring to boil and follow the **BREW DAY SCHEDULE**.

All Grain Instructions

Mash 17.5 lbs Brewers Malt with specialty grains in 24.5 quarts of water to get a single infusion mash of 150° F for 60 minutes. Sparge with hot water of 170° F to get 6 gallons of wort. Bring to boil and follow the **BREW DAY SCHEDULE**.

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 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.