Hefeweizen 5 Gallon All Grain Recipe

Style Name: Weissbier
Style Category: German Wheat Beer
Estimated Original Gravity: 1.049 SG
Estimated Final Gravity: 1.008 SG
Estimated Alcohol by Vol: 5.4 %
Estimated Calories: 0.0 kcal/12oz
Batch Size: 5.00 gal
Bitterness: 11.5 IBUs

Description: SafBrew Dry Wheat WB-06 may be used as a dry yeast alternative.

Ingredients

Amt	Name	Type	#	%/IBU
4 lbs 8.0 oz	Pilsner (2 Row) Ger (2.0 SRM)	Grain	1	50.0 %
4 lbs 8.0 oz	Wheat Malt, Ger (2.0 SRM)	Grain	2	50.0 %
0.75 oz	Hallertauer [4.30 %] - Boil 60.0 min	Hop	3	11.5 IBUs
2.0 pkg	Hefeweizen IV Ale (White Labs #WLP380) [35.49 ml]	Yeast	4	-

Note: A south German style of wheat beer (weissbier) made with at least 50% wheat, or even more. A yeast that produces unique flavors of banana and cloves with an often dry and tart edge, some spiciness, bubblegum or notes of apples. Little hop bitterness, and a moderate level of alcohol. The "Hefe" prefix means "with yeast", hence the beers unfiltered and cloudy appearance. Poured into a traditional Weizen glass, the Hefeweizen can be one sexy looking beer.

Brewing The Beer

Recommended Brew Day Equipment

- 7.5 Gal. Brew Pot (or larger)
- 10 Gal. Mash tun (or larger)
- 6.5 Gal. fermentor
- Airlock
- Long Spoon or Paddle
- Hydrometer
- Thermometer
- No-Rinse Sanitizer
- Cleanser

1. Read

Read all of the recommended procedures before you begin.

This recipe assumes the following:

1. You have a mash tun that can hold at least 9 lbs of grain.
2. You have a boil pot large enough to boil 6.80 gal of wort.
3. 72.00% brewhouse efficiency.

2. Sanitize

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

3. Pre-heat the mash tun

Bring 1 gallon of water to 165 degrees, put it in the mash tun and close the lid. Let that rest for about 10 minutes to heat the mash tun up to the desired temperature.

4. Mash The Grains


Mash the following 9 lbs pounds of grain:

Mash Ingredients

Amt	Name	Type	#	%/IBU
4 lbs 8.0 oz	Pilsner (2 Row) Ger (2.0 SRM)	Grain	1	50.0 %
4 lbs 8.0 oz	Wheat Malt, Ger (2.0 SRM)	Grain	2	50.0 %

Heat your "strike water" (just regular water heated for the mash) to the proper temperature stated in the mash steps below. Dump out the water used to pre-heat your mash tun, and add all of the strike water. Pour in the grains, stirring gently but thoroughly with a paddle or spoon. This step is called "doughing in". After all grains have been added, take the temperature of the mash and make sure it is exactly where it should be (as described in the mash steps below). You may need to add some hot or cold water to adjust it.

Mash steps, temperatures and times:

Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 3.06 gal of water at 158.2 F	148.0 F	75 min

5. Vorlauf

Vorlauf is the process of clarifying the sweet wort being drawn out of the mash tun.
After the mash steps are done we need to clarify the wort. Using the spigot on your mash tun drain 1-2 quarts of wort into a container then gently pour the sweet wort back on to the top of the grain bed. Repeat until the grain particles have been removed and the wort runs clear.

6. Lautering

Lautering is the act of separating the sweet wort from the spent grains.
Connect a hose to the mash tun spigot and open up the valve all the way. Collect the sweet wort in the brew pot you will be using for your boil. Once lautering is done, close the spigot valve completely.

7. Batch Sparge


Heat 5.07 gal of water to 168.0 F to prepare the sparge. Pour about half the water directly into the mash tun, stir the grains and cover. Wait for about five minutes then vorlauf and lauter just like in the previous steps. Add the rest of the sparge water and vorlauf and lauter again. Continue until you collect 6.80 gal of wort.

8. Start The Boil

Bring your wort to a vigorous rolling boil. Right before the sweet wort begins to boil, break material will form a foam that can boil over quickly and unexpectedly. Spray some water on it to break up the foam or use a anti-foaming agent like Fermcap-S. Continue the vigorous rolling boil for 90 minutes.

9. Add Ingredients According To The Schedule


Add the hops into the boiling wort according to the hop schedule. If there are steeping hops add them after flameout.

Boil Ingredients

Amt	Name	Type	#	%/IBU
0.75 oz	Hallertauer [4.30 %] - Boil 60.0 min	Hop	3	11.5 IBUs

10. Cool Wort And Transfer

Cool the wort down to approximately 67.0 F by placing the brew pot in a sink filled with ice water or by using a wort chiller. Pour or siphon the wort into a sanitized fermentor. You should now have 5.00 gal in your fermentor. Take the OG reading and write it down on this sheet. It should be approximately 1.049 SG .

11. Aerate The Wort

During the boiling process most of the oxygen is removed from the wort. In order to provide our wort with healthy yeast we must add oxygen back into the wort. The yeast will use the oxygen to build healthy cell walls resulting in greater attenuation and an overall healthier fermentation. To aerate the wort you can shake your carboy back and forth or stir the wort vigorously. Some people use pure oxygen and a diffusion stone to add the maximum amount of oxygen.

12. Pitch Yeast

If you are using liquid yeast open the pack and pour the yeast into the wort. If you are using dry yeast, open the pack and sprinkle the yeast onto the top of the wort. There is no need to stir. Firmly secure the lid/stopper/bung onto the fermentor. Fill your airlock halfway with water and gently twist the airlock into the lid/stopper/bung. Move fermentor to a dark, cool, temperature stable area at 67.0 F .

Fermentation Ingredients

Amt	Name	Type	#	%/IBU
2.0 pkg	Hefeweizen IV Ale (White Labs #WLP380) [35.49 ml]	Yeast	4	-

Fermenting The Beer

13. Fermentation

The wort will begin to ferment within 24-72 hours and you will notice CO2 releasing (bubbling) out of the airlock. If you do not see any activity and you are fermenting in a bucket, spray sanitizer on the airlock and around the grommet. Gently twist the airlock out of the grommet and peek inside. If you see a foam also called "krausen" then fermentation is active. There may be a ring of dried krausen around the edge of the bucket right above the beer. This is normal and means that fermentation is working. Replace the airlock gently twisting it back into the grommet. After 7.00 days rack your beer into a cleaned and sanitized secondary fermentor, avoid transferring any sediment (trub). Wait 14.00 more days and your beer will be ready for bottling*. Take a FG reading with a cleaned and sanitized hydrometer and record it on this sheet. It should be approximately 1.008 SG .

*If you are not going to use a secondary fermentor then simply let the beer sit in one fermentor for the entire duration.

Bottling The Beer

14. Sanitize

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

15. Prepare Priming Sugar

In a small saucepan dissolve 4.60 oz of priming sugar into enough boiling water to dissolve the sugar. Cool and pour this mixture into a cleaned and sanitized bottling bucket. Carefully siphon beer from the fermentor to the bottling bucket. Avoid transferring any sediment (trub). After the beer is in the bottling bucket, cover it and let it sit and mix for 5 minutes. By siphoning your beer onto the priming sugar stirring is not necessary.

16. Bottle

Connect a hose and bottling wand to the spigot on your bottling bucket. Fill the bottles to the top of the bottle. When the bottling wand is removed the perfect amount of head space will be left in the bottle. Use a bottle capper to apply sanitized crown caps.

17. Bottle Condition

Move the bottles to a dark, cool, temperature-stable area (approx. 67.0 F). Over the next 21.00 days, the bottles will naturally carbonate. Carbonation times vary depending on the temperature and beer style, so be patient if it takes a week or so longer.

Drink, Share and Enjoy!

Tips and Suggestions

1. The volume of wort boiled affects hop utilization. Boiling more than 6.80 gal gallons will increase the IBU's and they will decrease if wort volume is less than 6.80 gal gallons. IBU's for this recipe are calculated for a 6.80 gal gallon boil.
2. If your system has a different brewhouse efficiency than 72.00% it will effect the estimated gravity readings in this recipe. For a better understanding of brewhouse efficiency please read the article at http://www.homebrewtalk.com/wiki/index.php/Efficiency
3. The temperatures and volumes given in this recipe are based off the equipment that we have configured into BeerSmith. For a tutorial on configuring your own equipment please watch the video at http://beersmith.com/setting-up-your-equipment-in-beersmith-2/
4. To avoid bacteria growth chill your wort as quickly as possible. Do not add ice directly to the wort. Alternatively, you can use a brewing accessory like a wort chiller.
5. Consider transferring your beer to a secondary carboy.
6. Use standard crown bottles, preferably amber color. Make sure bottles are thoroughly clean. Use a bottle brush if necessary to remove stubborn deposits. Bottles should be sanitized prior to filling.
7. When consumed, hops can cause malignant hyperthermia in dogs, sometimes with fatal results.

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