



Aih Gluten Free Pale Ale



Sorghum with a heavy dose of Cascade, makes for a nice gluten free pale ale.

k99-5148

Original Gravity : 1.046 **IBUs :** 32
Final Gravity : 1.012 **Alcohol by volume :** 4.40%
Color : Medium Amber **Difficulty :** Easy

Supplies Included : Liquid White Sorghum Extract & Hops

Brew Day
/ /

Ingredients Included :				
Fermentables : 6.6 Liquid White Sorghum Extract		Specialty Grains : None		
Additives:				
Boil/Bittering Hops :	Flavor Hops:	Aroma Hops :	Knock - Out Hops :	Dry Hops :
1oz Cascade	1oz Cascade	1oz Cascade	None	1oz Cascade
Suggested Yeast :			White Labs 001 California Ale Wyeast 1056 American Ale, Safale-05	

Procedure : Please read all the instructions before you begin brewing.

1. Sanitization : It is important to thoroughly clean and sanitize all of your brewing equipment.
2. Making the Wort : Begin by heating 2.5 gallons of water in your Brew Pot. While the water is heating, place your "Specialty Grains", which should be crushed, into a "Grain Bag". Tie a knot at one end of the "Grain Bag" leaving room for the grains to be loose in the bag. When the water reaches a temperature of 150° to 160°F (max temp.), place the "Grain Bag" into your Brew Pot. Steep your grains at this temperature for 20 minutes. After 20 minutes, remove the "Grain Bag" from the pot. Do not squeeze the bag, just let the liquid drain from the bag into the pot. The water is now "Wort" at this point.
3. Boiling the Wort : Bring the "Wort" to a boil. It should be a rolling boil, be careful to avoid a "Boil Over". Remove the "Wort" from the heat. Add all of the included "Fermentables" to the "Wort". Stir the "Fermentables" into the "Wort" until it has all dissolved, making sure none of it is sitting on the bottom of the pot. Return the Brew Pot to heat and return the "Wort" to a boil. Add the Additives if included. Proceed to step 4.
4. Boil Hops : If using "Hop Bags", put the Boil Hops into a "Hop Bag" and tie loosely at one end. Add these to the boiling "Wort". You have now added the Bittering Hops. Continue to Boil this for 45 minutes.
5. Flavor Hops : Follow same instructions for "Hop Bags" as step 4. After 45 minutes of boiling, add the Flavor Hops to the boil. Continue to Boil for 10 minutes.
6. Aroma Hops : Follow same instructions for "Hop Bags" as step 4. After 10 minutes of boiling, add the Aroma Hops to the boil. Continue to Boil for 5 minutes.
7. Boil Termination : After 5 minutes (60 total minutes), remove heat source from the Brew Pot. Add the Knock Out Hops. Leave the Knock Out Hops in the Wort while cooling. Now it is time to cool the "Wort" to 70°F. This can be accomplished by using a "Wort Chiller".
8. Add Water : Siphon your cooled "Wort" from the brew pot into your fermenter. Be careful not to transfer heavy sediment from the brew pot into the fermenter. Add enough water to bring the Wort to 5 gallons. Stir the 5 gallons of "Wort". At this time, take a Hydrometer reading to record the Original Gravity.
9. Begin Fermentation: Add the yeast to the "Wort" surface. Firmly secure your fermenter lid and add the airlock. The ideal temperature for fermentation is 64° - 72°F. The "Wort" will begin to ferment within 24 hours. When fermentation is complete, when the airlock is no longer releasing Co2, take another hydrometer reading to record the Final Gravity. Proceed to bottling or kegging.
10. Dry Hops : After 5 to 7 days of fermentation, add Dry Hops. You can add these Hops directly to the sanitized secondary fermenter and rack on top of the Hops. If using single stage fermentation, leave beer in the fermenter for 2 weeks and add to the primary fermenter.
11. Fermentation Finish When fermentation is complete, take a Finishing Gravity Reading. Bottle or Keg Your Beer, following appropriate procedures.

ABV% Calculator	_____	_____	X 131.25	=	_____
	Original Gravity	Finishing Gravity			Alcohol by Volume %