



Grape and Granary
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Tincture of Iodine Test- Optional- After 1/2 hr of mashing, you can test for the presence of starch by: 1) remove a bit of the liquid part of the mash (no grain husk) and put it on a white plate. 2) put a drop of tincture of iodine (available at a pharmacy) beside the drop of mash. 3) tilt plate so that drop of iodine runs into mash sample. Watch for any color change. If mash sample turns black/blue, continue mashing. If iodine and mash sample stay red, mashing step is complete.

ALL GRAIN Beer Brewing Kit

AG13
New England IPA- ALL GRAIN

Ingredients

Malt

8.75 lbs Briess 2 Row

2.75 lb Oat Malt

Hops

3.5 oz of Citra/Azacca/
Simcoe and Centennial (Last 20 Minutes)

3.5 oz of Citra/Azacca/Simcoe
and Columbus (Last 5 minutes of boil)

3.25 oz of Citra/Azacca/Centennial
Simcoe and Columbus (Dry Hop Primary)

3.25 oz of Citra/Azacca/Centennial
Simcoe (Dry Hop Secondary)

Equipment

(1) 33 qt or larger boil kettle
(1) 20 qt or larger sparge kettle
Thermometer
Lauter tun
Wort chiller (optional)
Spoon
Beer hydrometer
Pitcher
Tincture of iodine (optional)

Recipe Specifics

Batch size- 5 us gallons

Total grain- 12 lbs

Anticipated sg 1.058

Anticipated color- 4 srm

Anticipated ibu- 40

Efficiency- 70%

Boil time- 90 minutes

Process Specifics

Mash Water quantity- 5.0 gallons

Pre-boil wort size- 6.5 gal

Strike water temp- 156 deg f.

Saccharification rest- 152 deg f for 60 minutes

Mash-out- 168 deg f. for 5 minutes

Sparge water temp- 170 deg. f.

Sparge time- 45-60 minutes

Fermentation temperature- 60-75 deg f.

Step 1- Begin by measuring the proper quantity of mash water into your mashing or boil kettle. Be sure that the water has no chlorine. Bring water temperature of mash water to strike water temperature.

Step 2- Make sure grains are milled. Pour grains into mash kettle at strike temperature. Stir well. Check temperature of mash. Mash temperature should be at approximately saccharification temperature. If it is not, adding small quantities of boiling or cold water will adjust mash temperature.

Step 3- Allow grains to 'stew' at saccharification temperature for 60 minutes. Stir the mash every 15 minutes or so to ensure an even temperature throughout the mash.

Step 4- Fill the 20 qt kettle with 5 gallons of brewing water. Bring this water to approx. 170 deg. F. Maintain this temperature throughout the mashing process so that this sparge water is ready to go at sparge time.

Step 5- Optional step- raise mash temperature to 168 deg. f.. this step is called a mash- out. Hold the mash temperature at 168 deg. f. for 5 minutes. This helps to stabilize enzyme activity and warms the sugars so that they can be extracted more efficiently. The temperature of the mash can be raised to 168 deg. f. by adding heat to the bottom of the mashing vessel or by infusing the mash with small quantities of boiling water.

Step 6- Transfer mash into lautertun. Open valve on lautertun and collect first runnings into a pitcher. Slowly pour first running over top of grain bed and allow to drain back through grain bed. Continue recirculation of first runnings until clarity improves.

Step 7- Once clarity improves, begin collecting runnings into boil kettle or other container. The sparging process should take approximately 45-60 minutes.

Restrict the flow of the wort exiting the lautertun so that run off takes 45-60 minutes. Begin pouring 170 deg. f.. sparge water over the top of the grain bed one pitcher at a time. Try not to allow grain bed to run dry or compaction of grain bed could occur.

Step 8- Continue sparging until approx. 6 1/2 gallons of wort is collected. If necessary transfer wort to boiling vessel. Bring 6 1/2 gallons of wort to a boil. Allow wort to boil for 1 hour and 10 minutes before adding the flavor hops. 5 minutes before the end of the 90 minute boil, add the aroma hops. If you are using an immersible wort chiller, place it in the boiling wort with the aroma hops to sanitize it. Irish moss is not required with this recipe.

20 minutes before end of boil
*add flavor hops

5 minutes before end of boil

*add aroma hops
*add immersion chiller if any

3 days after primary fermentation begins-

* add primary dry hops and wait 3 days before racking to secondary

rack to secondary

* Add secondary dry hops

Step 9- After 90 minute boil, cool wort to fermentation temperature. Siphon or pour wort into primary fermenter. Attempt to leave any trub (sediment) behind (**a hop spider or kettle screen used to hold hops in the kettle will help with less trub and more beer in the fermenter**). If you have less than 5 gallons of wort in primary fermenter, cool clean dechlorinated water may be added to increase volume. Check specific gravity with your hydrometer. you should find that the gravity is approximately that of anticipated s.g..

Step 10- add yeast and ferment at fermentation temperature.

Step 11- After 3 days of active fermentation, add the primary dry hops directly into the wort. An extra hop sock is provided for these hops. Wait two days and then rack to secondary.

Step 12- Once beer has been racked to secondary, add secondary dry hops. An extra hop sock has been provided for this step. Wait an additional 3-5 days before bottling. This beer will not be clear at bottling time.

Step 13- Sanitize recappable beer bottles. Siphon beer from secondary fermenter into priming container. Dissolve priming sugar in 1 cup boiling water. Add this sugar mixture to the beer in the priming/ bottling container. Stir well.

Step 14- Fill bottles to within one inch of the top. Cap bottles and allow to sit at 60-75 degrees F. for two weeks. The bottles may then be refrigerated. The beer may be consumed after two weeks but will continue to improve up to 2 months in the bottle. The beer will store well for a year or longer although this style of beer is designed to be consumed fresh and young.. Chill the beer to 45-55 deg. F. before drinking and decant into a clean beer glass that has the capacity to hold all of the beer in the bottle- Enjoy!

New England IPA

New England IPAs are beers that are purposely hazy or cloudy, which can give these brews a smooth, creamy mouthfeel – a departure from the light/dry mouthfeel you often get with West Coast IPAs – with little to no hop bitterness at the end utilizing hops that impart a tropical, juicy sweetness rather than the classic bitter, dank or citrus-y flavors West Coast IPA lovers have come to expect.

Drink young and fresh or as soon as carbonation is created.