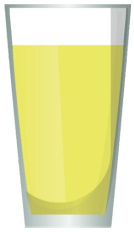
Berliner

Berliner weisse (12 E)

Type: All Grain
Batch Size: 26,00 L
Boil Size: 32,73 L
Boil Time: 30 min
End of Boil Vol: 30,04 L
Final Bottling Vol: 24,49 L
Fermentation: Ale, Two Stage

Date: 16 Jun 2019
Brewer: MortenBryg
Asst Brewer:
Equipment: BIAB - Standard 5 Gal/19 l Batch
Efficiency: 70,00 %
Est Mash Efficiency: 77,6 %
Taste Rating: 30,0



Taste Notes:

Ingredients

Amt	Name	Type	#	%/IBU	Volume
8,00 ml	Lactic Acid (Mash)	Water Agent	1	-	-
2,20 kg	Viking Pilsner Malt (4,0 EBC)	Grain	2	50,0 %	1,43 L
2,20 kg	Wheat Malt, Pale (Weyermann) (3,9 EBC)	Grain	3	50,0 %	1,43 L
30,00 g	Saaz [3,40 %] - Boil 30,0 min	Hop	4	8,0 IBUs	-
1,0 pkg	German Ale (Wyeast Labs #1007) [124,21 ml]	Yeast	5	-	-
1,0 pkg	Lactobacillus buchneri (Wyeast Labs #5335) [50,28…	Yeast	6	-	-

Gravity, Alcohol Content and Color

Est Original Gravity: 1,037 SG
Est Final Gravity: 1,007 SG
Estimated Alcohol by Vol: 3,9 %
Bitterness: 8,0 IBUs
Est Color: 5,6 EBC

Measured Original Gravity: 1,030 SG
Measured Final Gravity: 1,005 SG
Actual Alcohol by Vol: 3,3 %
Calories: 270,5 kcal/l

Mash Profile

Mash Name: Single Infusion, Light Body, No Mash Out
Sparge Water: 12,13 L
Sparge Temperature: 75,6 C
Adjust Temp for Equipment: TRUE
Est Mash PH: 5,72
Measured Mash PH: 5,42

Total Grain Weight: 4,40 kg
Grain Temperature: 22,2 C
Tun Temperature: 22,2 C
Target Mash PH: 5,20
Mash Acid Addition: None
Sparge Acid Addition: None

Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 25,00 L of water at 68,7 C	65,0 C	10 min

Sparge: Fly sparge with 12,13 L water at 75,6 C

Mash Notes: Simple single infusion mash for use with most modern well modified grains (about 95% of the time).

Carbonation and Storage

Carbonation Type: Bottle
Pressure/Weight: 193,66 g
Keg/Bottling Temperature: 21,1 C
Fermentation: Ale, Two Stage
Fermenter:

Storage Temperature: 18,3 C

Volumes of CO2: 3,0
Carbonation Est: Bottle with 193,66 g Table Sugar
Carbonation (from Meas Vol): Bottle with 225,40 g Table Sugar
Age for: 30,00 days

Notes

50% RO vand 19L

Urten blev mæsket torsdag 13/6 i Danbrygger.

PH sænket med 8 ml mælkesyre. PH på vandet var 5,2.

PH efter malten var tilsat var 5,42.

Refrak under mæsk 1035.

Ved nedkøling 77 grader var PH 5,64.

Vi endte med for meget urt. ca. 27L blev hældt i gryde. Ca. 2,5L blev taget fra til gærstarter.

Urten blev kogt i ca. 10 minutter for at fjerne uønskede bakterier. (kogt i gryde for at fjerne ilt fra overførsel fra Danbrygger til gryde, inden Lakto blev tilsat.)

Wyeast 5335 i ca. 1,2L gærstarter tilsat gryden ved lidt under 30 grader.

Der blev lagt et lag CO2 over urten. Grydens låg blev lukket med husholdnings film.

Sat i gærringsskab ved 35 grader. SG = 1032

PH efter lakto inden kogning 3,35

Søndag kogt urten med humle som normalt. Nedkølning og 2,5L gærstarter tilsat som normalt. OG = 1030

Ca. 27L efter kogning + 2,5L starter = 29,5L

Lactobacillus delbrueckii (Wyeast 5335)

Description
Lactic acid bacteria isolated from a Belgian Brewery. This culture produces moderated levels of acidity and is commonly found in many types of beers including gueuze, lambics, sour brown ales and Berliner Weisse. Always used in conjunction with S. cerevisiae and often with various wild yeast.

attenuation: N/A
alcohol tolerance: approx 9%
flocculation:
optimum fermentation temperature: 15-35°C

German Ale (Wyeast 1007)

Description
True top cropping yeast, low ester formation, broad temperature range affects styles. Cold fermentation will produce lager characteristics including sulfur production. Fermentation at higher temperatures may produce some mild fruitiness. Generally, yeast remains significantly in suspension. Beers mature rapidly, even when cold fermentation is used. Low or no detectable diacetyl.

attenuation: 73-77%
alcohol tolerance: approx 11%
flocculation:
optimum fermentation temperature: 13-20°C

Hoppe.beer anbefaler kellte sour i 3 dage. Så den plan går vi efter.

http://sourbeerblog.com/designing-brewing-berliner-weisse/

I like to shoot for a pH range of 3.3-3.7.

Sænk PH til 4,5. Det giver lakto en fordel i forhold til andre baktusser. (Vi satsede og og sænkede ikke PH efter mæsk.)

PH 3 meget surt. Under 3,7 begynder de at være sure.

The following is an excerpt with Jess Caudill, Brewer/Microbiologist, at Wyeast Laboratories, Inc. concerning usage of Wyeast 5335 and making a Berliner Weissbier.

Use 5335.
If using our 5335, don't use ANY hops. You can always blend in some IPA or hopped wort after souring takes place if you really need some bitterness or hop flavor/aroma in the beer.
From one 5335 pack, make a 1L starter with 1.020 DME sterile wort. No O2! Incubate at 90°F (32.22 °C) if possible for 5-7 days.
Brew your 5 gallons of wort. Again… no hops. Sterilize the wort. (No need for sour mashes). Cool to 90°F (32.22 °C) and add 1L 5335 starter. No O2. Try to maintain 90°F (32.22 °C) for 5-7 days depending on how sour you want the beer.
After 5-7 days, cool wort to around 68 (20C). Pitch with a low pH tolerant strain such as 1007 or 2124. No O2.
Ferment for around 1-2 weeks… until you hit terminal.
Package beer. If bottle conditioning, use 4021 as a bottling strains. Very tolerant to low pH.

28,5L fik 279g sukker = 9,8g/L