League Ich bin ein Berliner (AG) (AG)

Berliner Weisse (23 A)

Type: All Grain
Batch Size: 23.00 L
Boil Size: 28.50 L
Boil Time: 60 min
Final Bottling Vol: 22.00 L
Fermentation: Philly Sour Yeast

Date: 04 Feb 2022
Efficiency: 75.00 %
Est Mash Efficiency: 81.5 %



Brewing Notes:
This is a fruity flavoured sour with a target ABV of 3%. The yeast has a fermentation range of 20C - 30C with the upper end of the range recommended if possible. Lactic acid is produced during the first 24-72 hours followed by ethanol and CO2 production so very few bubbles will be observed during this period. Due to the nature of this yeast, it is not suitable for bottle conditioning so only make this beer if it will be carbonated in the fermenter or in kegs.

The suggested mineral additions assume an average NZ water profile and should be fine for most NZ water sources. The target water profile in ppm is Ca - 70, Mg - 10, Na - 40, SO4 - 40, Cl - 125.

1. If available, add sufficient lactic acid to the sparge water to lower the pH to 5.6 prior to heating (~ 0.5 - 1.5 ml depending on water source).
2. If flavour minerals are available, add to boil only as mash pH is taken care of with acid malt. For the salt addition, use plain (non-iodised) table salt or canning salt.
3. If available, add kettle finings and yeast nutrient 15 min before the end of boil.
4. When the boil is complete, cool the wort to 90C, add the whirlpool hops and let sit for 10 min before continuing to chill to pitching temp.
5. It is recommended that the yeast be rehydrated per the manufacturer's instructions. Pitch at 25C and maintain between 24C - 28C until fermentation is nearing completion.
6. Once fermentation nears completion, raise the temp to 28C - 30C for a diacetyl rest and hold until fermentation is complete.
7. If possible, cold crash for a few days prior to packaging.
8. Package in a keg and carbonate to ~ 3.5 volumes of CO2.

Mash or Steep Grains

Mash Ingredients

Amt	Name	Type	#	%/IBU	Volume
2.150 kg	Gladfield Pilsner Malt (3.7 EBC)	Grain	1	57.7 %	1.40 L
0.850 kg	Gladfield Wheat Malt (4.2 EBC)	Grain	2	22.8 %	0.55 L
0.425 kg	Gladfield Chit Malt (3.0 EBC)	Grain	3	11.4 %	0.28 L
0.300 kg	Gladfield Sour Grapes Malt Acid (6.0 EBC)	Grain	4	8.1 %	0.20 L

Mash Steps

Name	Description	Step Temperature	Step Time
Saccharification	Add 13.56 L of water at 78.3 C	73.0 C	30 min
Mash Out	Heat to 78.0 C over 10 min	78.0 C	30 min

◯ Fly sparge with 18.67 L water at 75.6 C
◯ Add water to achieve boil volume of 28.50 L
◯ Estimated pre-boil gravity is 1.030 SG

Boil Ingredients

Amt	Name	Type	#	%/IBU	Volume
2.00 g	Citra [12.00 %] - Boil 60.0 min	Hop	5	2.9 IBUs	-
4.50 g	Calcium Chloride (Boil)	Water Agent	6	-	-
2.50 g	Non-iodized Salt (Boil)	Water Agent	7	-	-
1.90 g	Gypsum (Calcium Sulfate) (Boil)	Water Agent	8	-	-
0.50 Items	Whirlfloc Tablet (Boil 15.0 mins)	Fining	9	-	-
1.50 g	Yeast Nutrient (Boil 15.0 mins)	Other	10	-	-

Steeped Hops

Amt	Name	Type	#	%/IBU	Volume
18.00 g	Citra [12.00 %] - Steep/Whirlpool 10.0 min, 90.0 C	Hop	11	4.6 IBUs	-

◯ Estimated Post Boil Vol: 26.00 L and Est Post Boil Gravity: 1.035 SG

Cool and Transfer Wort

◯ Cool wort to fermentation temperature
◯ Transfer wort to fermenter
◯ Add water if needed to achieve final volume of 23.00 L

Pitch Yeast and Measure Gravity and Volume

Fermentation Ingredients

Amt	Name	Type	#	%/IBU	Volume
1.0 pkg	Wildbrew Philly Sour (Lallemand #-) [0.05 L]	Yeast	12	-	-

◯ Measure Actual Original Gravity _____ (Target: 1.035 SG)
◯ Measure Actual Batch Volume _____ (Target: 23.00 L)

Fermentation

◯ 04 Feb 2022 - Primary Fermentation (7.00 days at 25.0 C ending at 25.0 C)
◯ 11 Feb 2022 - Secondary Fermentation (5.00 days at 28.0 C ending at 28.0 C)

Dry Hop and Bottle/Keg

Dry Hop/Bottling Ingredients

Amt	Name	Type	#	%/IBU	Volume
30.00 g	Citra [12.00 %] - 2.0 Days Before Bottling for 2.0 Days	Hop	13	0.0 IBUs	-

◯ Measure Final Gravity: _____ (Estimate: 1.011 SG)
◯ Date Bottled/Kegged: - Carbonation: Keg with 26.52 PSI