

Batch #23 - 18 Sep 2022

Wet Hops Blonde Ale (Willamette) - 4.3%

British Golden Ale

Brewer: The Thirsty Otter

Type: All Grain

IBU : 20 (Tinseth)
 BU/GU : 0.47
 Colour : 9 EBC
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.031
 Original Gravity : 1.041
 Total Gravity : 1.043
 Final Gravity : 1.010

Fermentables (1 kg)

750 g - Pale Ale Malt 8.5 EBC (75%)
 ^ Lot # 20210909
 ^ Brouwmaatje (NL) 051.011.5
 200 g - Pils 3.5 EBC (20%)
 ^ Lot # 20210710
 ^ Brouwmaatje (NL) 051.002.4
 50 g - Wheat Malt 5.5 EBC (5%)
 ^ Lot # 20210909
 ^ Brouwmaatje (NL)
 32 g - Bottling - Sugar, Table (Sucrose) 2 EBC
 ^ Albert Heijn (NL)

Hops (160 g)

20 min - 30 g - Willamette (green hops) (Whol...
 ^ Home grown by The Thirsty Otter
 10 min - 30 g - Willamette (green hops) (Whol...
 ^ Home grown by The Thirsty Otter

Hop Stand

15 min hopstand @ 80 °C
 15 min - 100 g - Willamette (green hops) (Who...
 ^ Home grown by The Thirsty Otter

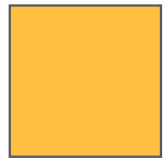
Miscellaneous

Mash - 0.29 g - Baking Soda (NaHCO3)
 ^ Lot # 41190621/3
 ^ Brouwstore (NL) 003.106.2
 Mash - 0.76 g - Calcium Chloride (CaCl2) 33 %...
 ^ Lot # 115038
 ^ Brouwstore (NL) 055.035.0
 Mash - 0.76 g - Canning Salt (NaCl)
 ^ Albert Heijn (NL)
 Mash - 1.17 g - Epsom Salt (MgSO4)
 ^ Lot # /2119000091
 ^ Brouwstore (NL) 055.027.7
 Mash - 1.5 g - Gypsum (CaSO4)
 ^ Brouwmaatje (NL)
 Mash - 0.4 ml - Lactic Acid 80% 80%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3
 Mash - 3 l - NL Spa Reine Flat Mineral Water
 ^ Lot # 20220901
 ^ AH (NL)
 Sparge - 5.84 l - NL Spa Reine Flat Mineral W...
 ^ Lot # 20220901
 ^ AH (NL)
 60 min - Boil - 0.15 g - Lipohop K
 ^ Lot # LPK110
 ^ The Malt Miller (UK) CH-03-013

01 Brouwpunt 5L (60min) (rev 4)

Batch Size : 5.6 L
 Boil Size : 7.76 L
 Post-Boil Vol : 5.96 L

Mash Water : 3 L
 Sparge Water : 5.84 L
 Boil Time : 60 min
 Total Water : 8.84 L



9 EBC

Brewhouse Efficiency: 71.8%
 Mash Efficiency: 73.3%

Mash Profile

01 One Step Mash (60 min)
 71 °C - Strike Temp
 65 °C - 60 min - Temperature

Fermentation Profile

01 Ale + DR + Conditioning
 18 °C - 10 days - Primary
 21 °C - 5 days - Diacetyl rest
 18 °C - 14 days - Carbonation
 18 °C - 28 days - Conditioning

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...
 Ca 55 Mg 15 Na 46 Cl 75 SO 150 HCO 40

SO/Cl ratio: 2

Mash pH: 5.38

Sparge pH: 6

Measurements

Mash pH: 5.37

Boil Volume: 8.3

Pre-Boil Gravity: 1.024

Post-Boil Kettle Volume: 6.9

Original Gravity: 1.032

Fermenter Top-Up:

Fermenter Volume: 5.5

Final Gravity: 1.000

Bottling Volume: 4.46

Batch #23 - 18 Sep 2022

Recipe Notes

Pitch 3 grams yeast @ 18 C.

Batch Notes

Brew day

18-09-2022 09:45 Calibrated the pH-meter.
18-09-2022 09:52 Strike water pH = 6.42 @ 14.6 C.
0.79 gram Calcium chloride.
0.4 ml Lactic acid
1.18 gram Epsom salt.
0.74 gram Canning salt.
0.29 gram Baking soda.
Forgot the Gypsum !
10:15 Strike water pH = 5.71 @ 45.0 C.
10:19 Mash in.
@5 m pH = 5.43@42.5 C.
@10 m pH = 5.40@43.0 C.
@15 m pH = 5.40@43.1 C.
@20 m pH = 5.37@49.6 C.
@25 m pH = 5.35@48.4 C.
@30 m pH = 5.37@43.9 C.
@35 m pH = 5.36@43.2 C.
@40 m pH = 5.37@41.0 C.
@45 m pH = 5.32@48.3 C.
@50 m pH = 5.35@44.9 C.
@55 m pH = 5.35@47.3 C.
@60 m pH = 5.39@39.3 C
11:35 1.5 L batch sparge #1 @ 72.0 C.
11:41 Sparge water pH = 6.23@17.4 C.
11:53 1.5 L batch sparge #2 @ 72.0 C.
12:15 1.5 L batch sparge #3 @ 72.9 C.
13:20 1.5 L batch sparge #4 @ 72.5 C.
13:35 Level = 16.6 cm --> 8.3 L wort.
13:37 SG = 1.020 @ 35.8 C. --> SG = 1.024 @ 20 C.
13:39 pH = 5.62@34.2 C.
13:47 Added 0.19 gram Lipohop K.
14:03 Hot break.
14:05 Start of boil.
14:54 Level = 14.5 cm --> 7.25 L.
15:07 Start of hop stand @ 98.3 C.
15:22 End of hop stand @ 84.0 C.
20:30 SG = 1.032. pH = 5.46 @ 21.6 C.
20:35 Level = 13.8 cm --> 6.9 L wort
20:41 5.5 L wort in the fermenter.

Day 0 in fermentation

19-09-2022 08:35 Pitched 3 grams of Fermentis S-04 yeast.
19-09-2022 08:35 16.7 C., dp = 0 mm H2O, SG = 1.032, pH = 5.46.
19-09-2022 11:15 18.0 C., dp = 10 mm H2O, no bubbles.
19-09-2022 12:00 17.9 C., dp = 30 mm H2O, no bubbles.
19-09-2022 13:00 17.6 C., dp = 30 mm H2O, no bubbles.
19-09-2022 16:00 17.1 C., dp = 40 mm H2O, no bubbles.
19-09-2022 18:00 17.5 C., dp = 48 mm H2O, no bubbles.
19-09-2022 20:00 18.0 C., dp = 3 mm H2O, no bubbles.
19-09-2022 21:00 18.0 C., dp = 3 mm H2O, no bubbles.
19-09-2022 22:00 17.9 C., dp = 3 mm H2O, no bubbles.

Day 1 in fermentation

20-09-2022 06:15 18.0 C.
20-09-2022 07:45 18.0 C., dp = 50 mm H2O, many bubbles.
20-09-2022 08:00 17.9 C.
20-09-2022 16:15 17.1 C.
20-09-2022 18:45 17.1 C., dp = 50 mm H2O, many bubbles.
20-09-2022 21:30 17.1 C., dp = 50 mm H2O, many bubbles.

Batch #23 - 18 Sep 2022

Batch Notes

Day 2 in fermentation

21-09-2022 02:45 17.1 C.
21-09-2022 05:30 17.1 C.
21-09-2022 08:00 17.0 C., dp = 50 mm H2O, many bubbles.
21-09-2022 12:00 18.0 C.
21-09-2022 16:00 18.0 C.
21-09-2022 20:00 17.8 C., dp = 50 mm H2O, many bubbles.
21-09-2022 22:00 17.7 C.

Day 3 in fermentation

22-09-2022 05:45 17.7 C.
22-09-2022 07:15 17.3 C., dp = 50 mm H2O, two bubbles.
22-09-2022 14:00 17.0 C.
22-09-2022 18:00 17.9 C., dp = 50 mm H2O, two bubbles.
22-09-2022 21:45 17.5 C., dp = 50 mm H2O, two bubbles.

Day 4 in fermentation

23-09-2022 04:15 17.8 C.
23-09-2022 08:15 17.1 C., dp = 50 mm H2O, two bubbles.
23-09-2022 10:00 18.0 C., dp = 50 mm H2O, one bubble.
23-09-2022 12:30 17.5 C., dp = 50 mm H2O, one bubble.
23-09-2022 17:00 18.1 C., dp = 50 mm H2O, one bubble.
23-09-2022 19:00 18.1 C., dp = 50 mm H2O, one bubble.
23-09-2022 22:30 17.6 C., dp = 50 mm H2O, one bubble.

Day 5 in fermentation

24-09-2022 00:00 17.5 C.
24-09-2022 04:00 17.1 C.
24-09-2022 08:45 17.6 C., dp = 45 mm H2O, no bubbles.
24-09-2022 11:00 17.3 C., dp = 45 mm H2O, no bubbles.
24-09-2022 17:00 17.7 C., dp = 45 mm H2O, no bubbles.
24-09-2022 20:00 17.3 C., dp = 45 mm H2O, no bubbles.

Day 6 in fermentation

25-09-2022 00:00 18.1 C.
25-09-2022 04:00 17.3 C.
25-09-2022 09:30 17.3 C., dp = 45 mm H2O, no bubbles.
25-09-2022 13:00 17.9 C., dp = 45 mm H2O, no bubbles.
25-09-2022 16:15 17.4 C., dp = 42 mm H2O, no bubbles.
25-09-2022 20:00 17.7 C.

Day 7 in fermentation

26-09-2022 00:00 17.6 C.
26-09-2022 04:00 17.7 C.
26-09-2022 08:30 17.3 C., dp = 45 mm H2O, no bubbles.
26-09-2022 12:15 17.8 C., dp = 45 mm H2O, no bubbles.
26-09-2022 16:00 17.1 C., dp = 45 mm H2O, no bubbles.
26-09-2022 20:00 17.4 C., dp = 45 mm H2O, no bubbles.
26-09-2022 23:45 18.0 C.

Day 8 in fermentation

27-09-2022 04:00 17.2 C.
27-09-2022 07:30 17.4 C., dp = 45 mm H2O, no bubbles.
27-09-2022 12:00 17.7 C.
27-09-2022 16:00 17.9 C.
27-09-2022 20:00 17.9 C., dp = 45 mm H2O, no bubbles.
27-09-2022 22:00 17.7 C., dp = 45 mm H2O, no bubbles.

Day 9 in fermentation

28-09-2022 00:00 17.0 C.
28-09-2022 04:00 17.2 C.
28-09-2022 07:45 17.3 C., dp = 45 mm H2O, no bubbles.
28-09-2022 12:00 17.5 C.
28-09-2022 16:00 17.9 C.
28-09-2022 20:00 17.1 C., dp = 45 mm H2O, no bubbles.

Batch #23 - 18 Sep 2022

Batch Notes

Day 10 in fermentation

29-09-2022 00:00 17.3 C.
29-09-2022 04:00 17.3 C.
29-09-2022 07:45 17.5 C., dp = 1 mm H2O, no bubbles.
29-09-2022 12:00 17.4 C.
29-09-2022 16:00 17.8 C.
29-09-2022 19:45 17.1 C., dp = 2 mm H2O, no bubbles.
29-09-2022 22:00 20.0 C.

Day 11 in fermentation

30-09-2022 00:00 20.8 C.
30-09-2022 04:00 20.8 C.
30-09-2022 07:15 21.0 C., dp = 45 mm H2O, no bubbles.
30-09-2022 12:00 20.3 C.
30-09-2022 16:00 20.4 C.
30-09-2022 17:15 20.1 C., dp = 20 mm H2O, no bubbles.
30-09-2022 20:00 20.6 C., dp = 45 mm H2O, no bubbles.

Day 12 in fermentation

01-10-2022 00:00 20.8 C.
01-10-2022 04:00 20.9 C.
01-10-2022 09:15 20.4 C., dp = 45 mm H2O, no bubbles.
01-10-2022 11:45 21.0 C., dp = 45 mm H2O, no bubbles.
01-10-2022 16:00 21.0 C., dp = 1 mm H2O, no bubbles.
01-10-2022 20:00 20.1 C.
01-10-2022 22:45 20.7 C.

Day 13 in fermentation

02-10-2022 00:15 20.0 C.
02-10-2022 04:00 20.2 C.
02-10-2022 08:00 20.3 C.
02-10-2022 10:30 20.9 C., dp = 1 mm H2O, no bubbles.
02-10-2022 12:15 20.3 C., dp = 2 mm H2O, no bubbles.
02-10-2022 16:00 20.5 C., dp = 40 mm H2O, no bubbles.
02-10-2022 20:00 20.9 C., dp = 2 mm H2O, no bubbles.

Day 14 in fermentation

03-10-2022 08:45 21.0 C., dp = 45 mm H2O, no bubbles.
03-10-2022 12:45 20.9 C., dp = 30 mm H2O, no bubbles.
03-10-2022 16:00 20.7 C., dp = 40 mm H2O, no bubbles.

Day 15 in fermentation

04-10-2022 07:30 20.8 C., dp = 1 mm H2O, no bubbles.
04-10-2022 18:15 20.1 C., dp = 1 mm H2O, no bubbles.
04-10-2022 20:00 21.1 C., dp = 1 mm H2O, no bubbles.

Bottling day

04-10-2022 20:30 20.9 C., dp = 0 mm H2O, SG = 1.000, pH = 4.41.
Filled 14 Steinie bottles (33 cl).

Day 1 in conditioning

05-10-2022 07:45 19.9 C.
05-10-2022 20:00 19.4 C.

Day 2 in conditioning

06-10-2022 06:30 19.2 C.
06-10-2022 19:15 18.9 C.
06-10-2022 23:30 19.0 C.

Day 3 in conditioning

07-10-2022 07:00 19.0 C.
07-10-2022 19:00 18.5 C.
07-10-2022 22:30 18.4 C.

Day 4 in conditioning

08-10-2022 07:30 18.2 C.

Batch #23 - 18 Sep 2022

Batch Notes

08-10-2022 22:30 18.1 C.

Day 5 in conditioning

09-10-2022 09:00 18.8 C.

09-10-2022 15:15 18.5 C.

09-10-2022 21:45 18.6 C.

Day 6 in conditioning

10-10-2022 08:00 18.5 C.

10-10-2022 11:30 18.4 C.

10-10-2022 22:45 18.2 C.

Day 7 in conditioning

11-10-2022 07:30 18.7 C.

11-10-2022 18:30 18.2 C.

11-10-2022 23:30 18.2 C.

Day 8 in conditioning

12-10-2022 07:30 18.9 C.

12-10-2022 18:30 18.4 C.

12-10-2022 22:30 18.4 C.

Day 9 in conditioning

13-10-2022 07:30 18.2 C.

13-10-2022 19:00 18.2 C.

13-10-2022 22:30 18.2 C.

Day 10 in conditioning

14-10-2022 07:30 18.8 C.

14-10-2022 12:30 18.8 C.

14-10-2022 17:00 18.7 C.

Day 11 in conditioning

15-10-2022 08:30 18.8 C.

15-10-2022 15:45 18.7 C.

15-10-2022 21:30 18.9 C.

Day 17 in conditioning

21-10-2022 20:00 18.1 C.

Day 18 in conditioning

22-10-2022 08:45 18.3 C.

22-10-2022 15:30 18.4 C.

Day 19 in conditioning

23-10-2022 00:15 18.7 C.

23-10-2022 11:30 18.1 C.

23-10-2022 23:30 18.0 C.

Day 20 in conditioning

24-10-2022 08:00 18.0 C.

24-10-2022 14:45 18.9 C.

24-10-2022 20:30 18.9 C.

Day 21 in conditioning

25-10-2022 07:15 18.7 C.

25-10-2022 17:30 18.4 C.

25-10-2022 23:30 18.5 C.

Day 22 in conditioning

26-10-2022 07:00 18.5 C.

26-10-2022 16:45 18.4 C.

26-10-2022 23:30 18.5 C.

Day 23 in conditioning

27-10-2022 07:45 18.7 C.

Batch #23 - 18 Sep 2022

Batch Notes

27-10-2022 16:30 18.8 C.
27-10-2022 21:45 18.2 C.

Day 24 in conditioning
28-10-2022 05:30 18.4 C.

Day 26 in conditioning
30-10-2022 18:00 18.0 C.
30-10-2022 21:00 18.0 C.

Day 27 in conditioning
31-10-2022 08:00 18.0 C.
31-10-2022 13:30 18.8 C.
31-10-2022 22:30 18.7 C.

Day 28 in conditioning
01-11-2022 07:00 18.5 C.
01-11-2022 15:00 18.8 C.
01-11-2022 20:30 18.7 C.

Day 29 in conditioning
02-11-2022 08:00 18.0 C.
02-11-2022 18:00 18.6 C.
02-11-2022 22:00 18.7 C.

Day 30 in conditioning
03-11-2022 07:15 18.4 C.
03-11-2022 13:00 18.0 C.
03-11-2022 21:30 18.1 C.

Day 31 in conditioning
04-11-2022 08:00 18.8 C.
04-11-2022 13:00 18.6 C.
04-11-2022 15:00 18.5 C.
04-11-2022 21:00 18.4 C.

Day 32 in conditioning
05-11-2022 11:00 17.5 C.
05-11-2022 16:30 17.5 C.
05-11-2022 22:30 17.7 C.

Day 33 in conditioning
06-11-2022 08:00 17.2 C.
06-11-2022 18:45 17.8 C.
06-11-2022 22:00 17.5 C.

Day 34 in conditioning
07-11-2022 07:45 17.0 C.
07-11-2022 18:00 17.7 C.
07-11-2022 22:00 17.7 C.

Day 35 in conditioning
08-11-2022 07:45 17.1 C.
08-11-2022 12:30 17.7 C.
08-11-2022 16:00 17.7 C.
08-11-2022 20:45 17.8 C.

Day 36 in conditioning
09-11-2022 19:30 17.4 C.

Day 37 in conditioning
10-11-2022 00:00 17.5 C.
10-11-2022 08:00 17.4 C.
10-11-2022 19:00 17.2 C.
10-11-2022 22:30 17.2 C.

Batch #23 - 18 Sep 2022

Batch Notes

Day 38 in conditioning
11-11-2022 07:00 17.9 C.
11-11-2022 14:00 17.7 C.
11-11-2022 18:00 17.9 C.

Day 39 in conditioning
12-11-2022 09:30 17.9 C.
12-11-2022 15:00 17.7 C.
12-11-2022 21:00 17.8 C.

Day 40 in conditioning
13-11-2022 08:00 17.5 C.
13-11-2022 18:00 17.1 C.
13-11-2022 22:30 17.1 C.

Day 41 in conditioning
14-11-2022 08:00 17.5 C.
14-11-2022 13:00 17.1 C.
14-11-2022 16:45 17.0 C.

Day 42 in conditioning
15-11-2022 07:00 17.0 C.
15-11-2022 18:00 17.2 C.
15-11-2022 22:30 17.4 C.

Extra Measured Values

Strike Water Temperature	71.5
Strike Water pH	5.71
Sparge Water Temperature	72
Sparge Water pH	6.23
Pitch Temperature	16.7

Batch Log

18 September 2022	Brew Date
18 September 2022 10:12	Status: Brewing
19 September 2022 08:30	SV = 18.0 C.
19 September 2022	Fermentation Start
29 September 2022 20:30	SV = 21.0 C.
4 October 2022	Bottling Date
4 October 2022 20:30	Filled 14 Steinie bottles (33 cl).
15 November 2022 22:40	Status: Completed

Taste

3.0 / 5.0