

Batch #22 - 4 Sep 2022

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Wet Hops Blonde Ale (Bramling-X) - 4.2%

British Golden Ale
 Brewer: The Thirsty Otter

Type: All Grain

IBU : 28 (Tinseth)
 BU/GU : 0.66
 Colour : 9 EBC
 Carbonation : 2.4 CO₂-vol

Pre-Boil Gravity : 1.031
 Original Gravity : 1.041
 Total Gravity : 1.042
 Final Gravity : 1.010

Fermentables (1 kg)

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

Hops (160 g)

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

Hop Stand

15 min hopstand @ 90 °C
 15 min 90 °C - 100 g - Bramling Cross (green...)
 ^ 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)
 ^ Brouwnaatje (NL)
 Mash - 0.4 ml - Lactic Acid 80% 80%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3
 Mash - 5.84 l - NL Spa Reine Flat Mineral Water
 ^ Lot # 20220704
 ^ AH (NL)
 Mash - 3 l - NL Spa Reine Flat Mineral Water
 ^ Lot # 20220704
 ^ AH (NL)
 60 min - Boil - 0.15 g - LipoHop K
 ^ Lot # LPK110
 ^ The Malt Miller (UK) CH-03-013

01 Brouwput 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
 75 °C - 10 min - Mash out

Fermentation Profile

01 Ale + DR + Conditioning
 18 °C - 10 days - Primary
 21 °C - 4 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 5.247

Boil Volume: 7.9

Pre-Boil Gravity: 1.027

Post-Boil Kettle Volume: 6

Original Gravity: 1.041

Fermenter Top-Up:

Fermenter Volume: 4.5

Final Gravity: 1.008

Bottling Volume: 3.5

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Recipe Notes

Pitch 3 grams yeast @ 18 C.

Batch Notes

04-09-2022 8:30 Milled malts at 1.91 mm gap.
Lots of empty husks in Pale Ale malt and Pils Malt.

04-09-2022 08:45 Strike water pH = 6.07 @ 20.7 C.

04-09-2022 09:59 Mash in

04-09-2022 10:04 5.37 @ 43.7 C.

04-09-2022 10:09 5.32 @ 40.4 C.

04-09-2022 10:14 5.26 @ 44.3 C.

04-09-2022 10:19 5.24 @ 43.2 C.

04-09-2022 10:24 5.24 @ 42.7 C.

04-09-2022 10:29 5.23 @ 45.4 C.

04-09-2022 10:34 5.22 @ 47.1 C.

04-09-2022 10:39 5.22 @ 46.4 C.

04-09-2022 10:44 5.20 @ 47.6 C.

04-09-2022 10:49 5.22 @ 45.8 C.

04-09-2022 10:54 5.22 @ 47.2 C.

04-09-2022 10:59 5.25 @ 39.9 C.

Mash out @ 75 C for 10 m

04-09-2022 11:09 5.22 @ 47.8 C.

Batch sparge #1 1.5 L @ 72 C.

Batch sparge #2 1.5 L @ 72 C.

Batch sparge #3 1.5 L @ 72 C.

Batch sparge #4 1.0 L @ 72 C.

04-09-2022 13:00 SG = 1.020 @ 43.0 C --> SG = 1.027 @ 20 C.

04-09-2022 13:01 Level = 15.8 cm --> 7.9 L wort.

04-09-2022 13:19 Break.

04-09-2022 14:09 Level = 14.5 cm --> 7.25 L wort.

04-09-2022 14:19 Flame out

04-09-2022 14:20 Start hop stand @ 98.2 C.

04-09-2022 14:35 End of hop stand @ 84.3 C.

04-09-2022 14:47 Level = 12 cm --> 6.0 L wort @ 35.2 C.

Cooled down over night.

05-09-2022 08:35 SG = 1.041, pH 5.21, 18.4 C.

05-09-2022 08:45 4.5 L wort in the fermenter.

05-09-2022 09:07 Pitched 3 grams yeast @ 18.4 C.

Day 0 in fermentation

05-09-2022 09:07 18.4 C, dp = 0 mm H2O, no bubbles.

05-09-2022 11:45 18.3 C.

05-09-2022 16:00 17.6 C.

05-09-2022 20:15 18.1 C, dp = 50 mm H2O, many bubbles.

05-09-2022 23:30 18.5 C, dp = 50 mm H2O, many bubbles.

Day 1 in fermentation

06-09-2022 00:00 17.6 C.

06-09-2022 04:00 17.8 C.

06-09-2022 08:00 17.9 C, dp = 50 mm H2O, many bubbles.

06-09-2022 12:00 18.0 C, dp = 50 mm H2O, many bubbles.

06-09-2022 16:00 17.6 C.

06-09-2022 20:00 18.4 C.

06-09-2022 21:00 17.6 C, dp = 50 mm H2O, many bubbles.

Day 2 in fermentation

07-09-2022 00:00 17.9 C.

07-09-2022 04:00 18.4 C.

07-09-2022 06:45 17.7 C, dp = 50 mm H2O, two bubbles.

07-09-2022 08:00 17.9 C.

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Batch Notes

07-09-2022 12:00 17.6 C.
 07-09-2022 16:00 18.4 C.
 07-09-2022 19:00 17.9 C., dp = 50 mm H₂O, one bubble.
 07-09-2022 20:00 18.0 C.
 07-09-2022 21:00 18.3 C., dp = 50 mm H₂O, one bubble.

Day 3 in fermentation

08-09-2022 00:00 18.1 C.
 08-09-2022 04:00 17.5 C.
 08-09-2022 08:00 17.9 C., dp = 50 mm H₂O, one bubble.
 08-09-2022 12:00 18.3 C.
 08-09-2022 16:00 17.9 C., dp = 45 mm H₂O, no bubbles.
 08-09-2022 20:00 18.3 C., dp = 45 mm H₂O, no bubbles.

Day 4 in fermentation

09-09-2022 00:00 17.6 C.
 09-09-2022 04:00 17.8 C.
 09-09-2022 08:00 17.9 C., dp = 40 mm H₂O, no bubbles.
 09-09-2022 12:00 17.9 C.
 09-09-2022 13:30 17.9 C., dp = 45 mm H₂O, no bubbles.
 09-09-2022 16:00 17.9 C.
 09-09-2022 17:00 17.9 C., dp = 45 mm H₂O, no bubbles.
 09-09-2022 20:00 18.0 C.
 09-09-2022 20:30 18.0 C., dp = 45 mm H₂O, no bubbles.

Day 5 in fermentation

10-09-2022 00:00 18.0 C.
 10-09-2022 04:00 18.0 C.
 10-09-2022 06:00 18.0 C., dp = 45 mm H₂O, no bubbles.
 10-09-2022 08:00 18.0 C.
 10-09-2022 12:00 18.0 C.
 10-09-2022 16:00 18.0 C.
 10-09-2022 20:00 18.1 C., dp = 5 mm H₂O, no bubbles.

Day 6 in fermentation

11-09-2022 00:00 18.3 C.
 11-09-2022 04:00 18.4 C.
 11-09-2022 08:00 18.3 C.
 11-09-2022 11:00 18.1 C., dp = 2 mm H₂O, no bubbles.
 11-09-2022 12:00 18.1 C.
 11-09-2022 13:00 18.1 C., dp = 2 mm H₂O, no bubbles.
 11-09-2022 16:00 18.1 C.
 11-09-2022 20:00 18.4 C., dp = 2 mm H₂O, no bubbles.

Day 7 in fermentation

12-09-2022 00:00 17.5 C.
 12-09-2022 04:00 17.7 C.
 12-09-2022 08:00 17.8 C.
 12-09-2022 09:00 17.8 C., dp = 2 mm H₂O, no bubbles.
 12-09-2022 12:00 17.8 C.
 12-09-2022 16:00 17.9 C.
 12-09-2022 19:00 18.2 C., dp = 2 mm H₂O, no bubbles.
 12-09-2022 20:00 18.2 C.

Day 8 in fermentation

13-09-2022 00:00 17.5 C.
 13-09-2022 04:00 17.8 C.
 13-09-2022 06:00 17.9 C., dp = 2 mm H₂O, no bubbles.
 13-09-2022 08:00 18.1 C.
 13-09-2022 12:00 18.2 C.
 13-09-2022 16:00 17.5 C.
 13-09-2022 20:00 18.0 C., dp = 45 mm H₂O, no bubbles.
 13-09-2022 21:00 18.1 C., dp = 45 mm H₂O, no bubbles.
 13-09-2022 22:30 18.1 C., dp = 45 mm H₂O, no bubbles.

Day 9 in fermentation

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Batch Notes

14-09-2022 00:00 18.3 C.
 14-09-2022 04:00 18.3 C.
 14-09-2022 08:00 18.3 C., dp = 35 mm H₂O, no bubbles.
 14-09-2022 12:00 18.3 C., dp = 30 mm H₂O, no bubbles.
 14-09-2022 16:00 18.3 C.
 14-09-2022 20:00 18.3 C., dp = 10 mm H₂O, no bubbles.

Day 10 in fermentation

15-09-2022 00:00 18.3 C.
 15-09-2022 04:00 18.2 C.
 15-09-2022 08:00 18.2 C., dp = 5 mm H₂O, no bubbles.
 15-09-2022 12:00 17.9 C.
 15-09-2022 16:00 18.1 C.
 15-09-2022 18:00 18.1 C., dp = 2 mm H₂O, no bubbles.
 15-09-2022 20:00 19.5 C., dp = 10 mm H₂O, no bubbles.
 15-09-2022 21:30 19.3 C., dp = 12 mm H₂O, no bubbles.

Day 11 in fermentation

16-09-2022 00:00 19.2 C.
 16-09-2022 04:00 19.2 C.
 16-09-2022 08:00 19.0 C., dp = 45 mm H₂O, no bubbles.
 16-09-2022 12:00 19.5 C., dp = 45 mm H₂O, no bubbles.
 16-09-2022 14:15 20.7 C., dp = 45 mm H₂O, no bubbles.
 16-09-2022 16:00 20.4 C.
 16-09-2022 18:45 20.2 C., dp = 45 mm H₂O, no bubbles.
 16-09-2022 20:00 20.1 C.
 16-09-2022 23:00 20.0 C., dp = 45 mm H₂O, no bubbles.

Day 12 in fermentation

17-09-2022 00:00 20.1 C.
 17-09-2022 04:00 20.2 C.
 17-09-2022 08:00 21.1 C., dp = 45 mm H₂O, no bubbles.
 17-09-2022 12:00 20.1 C., dp = 45 mm H₂O, no bubbles.
 17-09-2022 16:00 20.2 C., dp = 45 mm H₂O, no bubbles.
 17-09-2022 20:00 20.0 C., dp = 45 mm H₂O, no bubbles.

Day 13 in fermentation

18-09-2022 00:00 20.1 C.
 18-09-2022 04:00 21.0 C.
 18-09-2022 08:00 21.0 C.
 18-09-2022 12:00 20.6 C., dp = 45 mm H₂O, no bubbles.
 18-09-2022 16:00 20.2 C., dp = 45 mm H₂O, no bubbles.
 18-09-2022 19:15 20.5 C., dp = 45 mm H₂O, no bubbles.

Bottling day

18-09-2022 19:50 19.5 C., dp = 0 mm H₂O, SG = 1.008, pH = 4.37.
 Filled 11.5 Steiner bottles (33 cl).

Day 0 in conditioning (in the cellar)

18-09-2022 21:15 19.5 C.

Day 1 in conditioning

19-09-2022 09:00 19.5 C.
 19-09-2022 13:00 19.8 C.
 19-09-2022 09:00 20.8 C.

Day 2 in conditioning

20-09-2022 07:40 20.4 C.

Day 3 in conditioning

21-09-2022 21:00 19.5 C.

Day 4 in conditioning

22-09-2022 07:15 19.5 C.
 22-09-2022 18:30 19.4 C.
 22-09-2022 21:45 19.7 C.

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Batch Notes

Day 5 in conditioning

23-09-2022 08:00 19.3 C.
23-09-2022 15:00 19.0 C.
23-09-2022 19:00 19.5 C.
23-09-2022 22:30 19.4 C.

Day 6 in conditioning

24-09-2022 09:00 19.0 C,
24-09-2022 17:15 19.5 C,

Day 7 in conditioning

25-09-2022 09:00 19.9 C.
25-09-2022 13:00 19.6 C.
25-09-2022 16:15 19.9 C.
25-09-2022 20:00 19.5 C.

Day 8 in conditioning

26-09-2022 08:30 19.9 C.
26-09-2022 12:00 19.2 C.
26-09-2022 16:30 19.1 C.
26-09-2022 20:00 19.4 C.

Day 9 in conditioning

27-09-2022 08:00 19.7 C.
27-09-2022 20:00 19.5 C.

Day 10 in conditioning

28-09-2022 07:45 18.4 C.
28-09-2022 20:00 19.1 C.

Day 11 in conditioning

29-09-2022 07:30 18.5 C.
29-09-2022 19:00 18.0 C.

Day 12 in conditioning

30-09-2022 07:30 18.4 C.
30-09-2022 17:15 18.5 C.
30-09-2022 21:00 18.0 C.

Day 13 in conditioning

01-10-2022 09:15 18.5 C.
01-10-2022 11:45 18.4 C.
01-10-2022 16:00 18.9 C.
01-10-2022 20:00 18.6 C.

Day 14 in conditioning

02-10-2022 09:30 18.7 C.
02-10-2022 12:00 18.7 C.
02-10-2022 16:15 19.0 C.
02-10-2022 20:00 19.7 C.

Day 15 in conditioning

03-10-2022 08:45 19.4 C.
03-10-2022 12:45 19.2 C.
03-10-2022 16:00 19.2 C.
03-10-2022 20:30 19.2 C.

Day 16 in conditioning

04-10-2022 07:30 18.9 C.
04-10-2022 18:30 19.0 C.
04-10-2022 20:00 19.2 C.

Day 17 in conditioning

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

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Batch Notes

Day 18 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 19 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 20 in conditioning

08-10-2022 07:30 18.2 C.
08-10-2022 22:30 18.1 C.

Day 21 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 22 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 23 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 24 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 25 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 26 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 27 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 33 in conditioning

21-10-2022 20:00 18.1 C.

Day 34 in conditioning

22-10-2022 08:45 18.3 C.
22-10-2022 15:30 18.4 C.

Day 35 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 36 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.

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Batch Notes

Day 37 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 38 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 39 in conditioning
 27-10-2022 07:45 18.7 C.
 27-10-2022 16:30 18.8 C.
 27-10-2022 21:45 18.2 C.

Day 40 in conditioning
 28-10-2022 05:30 18.4 C.

Day 42 in conditioning
 30-10-2022 18:00 18.0 C.
 30-10-2022 21:00 18.0 C.

Extra Measured Values

Strike Water Temperature	71
Strike Water pH	6.07
Sparge Water Temperature	72
Sparge Water pH	6
Pitch Temperature	18.4

Batch Log

4 September 2022	Brew Date
4 September 2022 09:59	Status: Brewing
5 September 2022 09:08	Status: Fermenting
5 September 2022	Fermentation Start
5 September 2022 09:10	SV = 17.5 C.
5 September 2022 12:00	Power outage.
15 September 2022 14:13	SV = 18.5 C.
15 September 2022 19:43	SV = 19.0 C.
15 September 2022 19:53	SV = 20.0 C.
16 September 2022 08:11	SV = 20.5 C.
16 September 2022 12:19	SV = 21.0 C.
18 September 2022 19:50	Filled 11.5 Steiner bottles (33 cl).
18 September 2022	Bottling Date
30 October 2022 23:59	Status: Completed

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Taste

3.2 / 5.0