

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

**Blonde Ale** 01 Brouwpunt 5L (60min) (rev 4) : 5.6 L Brewer: The Thirsty Otter Batch Size Boil Size : 7.76 L Post-Boil Vol : 5.96 L Type: All Grain IBU : 30 (Tinseth) Mash Water : 3 L BU/GU : 0.71 Sparge Water : 5.84 L **10 EBC** : 10 EBC Boil Time Colour : 60 min Carbonation : 2.4 CO2-vol Total Water : 8.84 L : 1.031 Brewhouse Efficiency: 71.8% Pre-Boil Gravity Original Gravity : 1.041 Mash Efficiency: 73.3% Total Gravity : 1.042 Mash Profile Final Gravity : 1.010 01 One Step Mash (60 min) 71 °C - Strike Temp Fermentables (1 kg) 750 g - Pale Ale Malt 8.5 EBC (75%) 65 °C - 60 min - Temperature 75 °C - 10 min - Mash out ^ Lot # 20210909 ^ Brouwmaatje (NL) 051.011.5 200 g - Pils 3.5 EBC (20%) Fermentation Profile ^ Lot # 20210710 01 Ale + DR + Conditioning ^ Brouwmaatje (NL) 051.002.4 18 °C - 10 days - Primary 21 °C - 4 days - Diacetyl rest 50 g - Wheat Malt 5.5 EBC (5%) ^ Lot # 20210909 18 °C - 14 days - Carbonation 18 °C - 28 days - Conditioning ^ Brouwmaatje (NL) 22 g - Bottling - Sugar, Table (Sucrose) 2 EBC Water Profile ^ Albert Heijn (NL) 02 NL Spa Reine Flat Mineral Water (www.ah.nl... Hops (160 g) Ca 55 Mg 15 Na 46 Cl 75 SO 150 20 min - 30 g - Bramling Cross (green hops) (... ^ Home grown by The Thirsty Otter SO/Cl ratio: 2 10 min - 30 g - Bramling Cross (green hops) (... Mash pH: 5.38 ^ Home grown by The Thirsty Otter Sparge pH: 6 **Hop Stand** Measurements 15 min hopstand @ 90 °C 15 min 90 °C - 100 g - Bramling Cross (green... Mash pH: 5.247 ^ Home grown by The Thirsty Otter Boil Volume: 7.9 Miscellaneous Pre-Boil Gravity: 1.027 Mash - 0.29 g - Baking Soda (NaHCO3) ^ Lot # 41190621/3 ^ Brouwstore (NL) 003.106.2 Post-Boil Kettle Volume: 6 Mash - 0.76 g - Calcium Chloride (CaCl2) 33 %... ^ Lot # 115038 Original Gravity: 1.041 ^ Brouwstore (NL) 055.035.0 Mash - 0.76 g - Canning Salt (NaCl) Fermenter Top-Up: ^ Albert Heijn (NL) Mash - 1.17 g - Epsom Salt (MgSO4) Fermenter Volume: 4.5 ^ Lot # /2119000091 ^ Brouwstore (NL) 055.027.7 Final Gravity: 1.008 Mash - 1.5 g - Gypsum (CaSO4) ^ Brouwmaatje (NL) Bottling Volume: 3.5 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

^ Lot # LPK110 ^ The Malt Miller (UK) CH-03-013

60 min - Boil - 0.15 g - Lipohop K

Mash - 3 l - NL Spa Reine Flat Mineral Water

^ AH (NL)

^ AH (NL)

^ Lot # 20220704



#### Recipe Notes

Pitch 3 grams yeast @ 18 C.

#### **Batch Notes**

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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 H20, 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 H20, 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 H20, no bubbles. 13-09-2022 21:00 18.1 C., dp = 45 mm H20, no bubbles.
13-09-2022 22:30 18.1 C., dp = 45 mm H2O, no bubbles.
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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 H20, 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 Steinie bottles (33 cl).
Day 0 in conditioning
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.
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Extra Measured Values	
Strike Water Temperature	71
Strike Water pH	6.07
Sparge Water Temperature	72
Sparge Water pH	6



# Extra Measured Values 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.
13 September 2022 19:30	WiFi outtage.
13 September 2022 20:30	Wifi outtage.
13 September 2022 21:15	WiFi outtage.
13 September 2022 23:00	WiFi outtage.
14 September 2022 00:45	WiFi outtage.
14 September 2022 07:15	WiFi outtage.
14 September 2022 10:45	WiFi outtage.
14 September 2022 12:15	WiFi outtage.
14 September 2022 13:00	WiFi outtage.
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 Steinie bottles (33 cl).
18 September 2022	Bottling Date