

61 Three Hops Blonde v3 - 4.6%

Blonde Ale

Brewer: The Thirsty Otter

Type: All Grain

IBU : 24 (Tinseth)
 BU/GU : 0.56
 Colour : 8 EBC
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.020
 Original Gravity : 1.040
 Total Gravity : 1.042
 Final Gravity : 1.007

Fermentables (285 g)

279 g - Pale Ale Malt 6 EBC (97.9%)
 ^ Lot # 694-201130-111430-176081-1/1
 ^ The Malt Miller (UK) MAL-00-010
 6 g - Carapils 4 EBC (2.1%)
 ^ Lot # 694-201130-111430-176081-1/1
 ^ The Malt Miller (UK) MAL-01-016
 6 g - Bottling - Sugar, Table (Sucrose) 2 EBC
 ^ Albert Heijn (NL)

Hops (10.5 g)

Hop Stand

30 min hopstand @ 85 °C
 30 min 85 °C - 2.4 g - Centennial - 9% (10 IBU)
 30 min 85 °C - 2 g - Citra - 13.8% (13 IBU)

Dry Hops

4 days - 2.1 g - Centennial - 9%
 4 days - 2 g - Citra - 13.8%
 4 days - 2 g - Mosaic - 11.6%

Miscellaneous

Mash - 0.062 g - Baking Soda (NaHCO3)
 ^ Lot # 41190621/3
 ^ Brouwstore (NL) 003.106.2
 Mash - 0.166 g - Calcium Chloride (CaCl2) 33...
 ^ Lot # 115038
 ^ Brouwstore (NL) 055.035.0
 Mash - 0.161 g - Canning Salt (NaCl)
 ^ Albert Heijn (NL)
 Mash - 0.248 g - Epsom Salt (MgSO4)
 ^ Lot # /2119000091
 ^ Brouwstore (NL) 055.027.7
 Mash - 0.322 g - Gypsum (CaSO4)
 ^ Brouwmaatje (NL)
 Mash - 0.085 ml - Lactic Acid 80% 80%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3
 Mash - 0.624 l - NL Spa Reine Flat Mineral Water
 ^ Lot # 20210830
 ^ AH (NL)
 Sparge - 1.265 l - NL Spa Reine Flat Mineral...
 ^ Lot # 20210830
 ^ AH (NL)
 60 min - Boil - 0.032 g - Lipohop K
 ^ Lot # LPK110
 ^ The Malt Miller (UK) CH-03-013
 10 min - Boil - 0.215 g - Irish Moss
 ^ Lot # 4348

02 PET Bottle 1.5L (60min) (rev 4)

Batch Size : 1.2 L
 Boil Size : 3.68 L
 Post-Boil Vol : 1.87 L

Mash Water : 0.86 L
 Sparge Water : 3.09 L
 Boil Time : 60 min
 Total Water : 3.95 L



8 EBC

Brewhouse Efficiency: 52.7%
 Mash Efficiency: 79.1%

Mash Profile

11 High fermentability plus mash out (70 min)
 71 °C - Strike Temp
 65 °C - 60 min - Temperature
 75 °C - 10 min - Mash out

Fermentation Profile

01 Ale + DR + Conditioning
 17 °C - 10 days - Primary
 20 °C - 4 days - Diacetyl rest
 17 °C - 4 days - Dry hopping
 17 °C - 14 days - Carbonation
 17 °C - 28 days - Conditioning

Water Profile

NL Spa Reine Flat Mineral Water (www.ah.nl) (...
 Ca 117 Mg 31 Na 98 Cl 161 SO 330

SO/Cl ratio: 2.1

Mash pH: 4.62

Sparge pH: 6

Measurements

Mash pH: 5.33

Boil Volume:

Pre-Boil Gravity: 1.025

Post-Boil Kettle Volume:

Original Gravity: 1.042

Fermenter Top-Up:

Fermenter Volume: 1

Final Gravity: 1.008

Bottling Volume: 0.66

Batch #18 - 28 Dec 2021

Recipe Notes

Target: ABV = 4.4 %, IBU = 24.

Malt is ordered with standard crush @ The Malt Miller (<https://www.themaltmiller.co.uk/>).

Batch Notes

Brew day

28-12-2021 11:00 3 L Spa Reine Flat Mineral water.
28-12-2021 11:00 Added 0.30 grams Baking soda.
28-12-2021 11:00 Added 0.75 grams Canning salt.
28-12-2021 11:00 Added 1.16 grams Epsom salt.
28-12-2021 11:00 Added 1.49 grams Gypsum.
28-12-2021 11:00 Added 0.79 grams Calciumchloride.
28-12-2021 11:00 Added 0.4 ml Lactic acid.
28-12-2021 11:15 Strike water pH = 5.30 @ 39.7 C ATC.
28-12-2021 11:15 Mash in @ 72.3 C.
28-12-2021 11:18 Mash pH = 5.35 @ 42.1 C.
28-12-2021 11:22 Mash pH = 5.33 @ 43.7 C.
28-12-2021 11:28 Mash pH = 5.31 @ 44.2 C.
28-12-2021 11:35 Mash pH = 5.31 @ 40.6 C.
28-12-2021 11:40 Mash pH = 5.34 @ 35.6 C.
28-12-2021 11:51 Mash pH = 5.33 @ 39.9 C.
28-12-2021 12:18 Mash pH = 5.32 @ 41.7 C.
28-12-2021 12:19 Heating to 75 C
28-12-2021 12:25 Mash pH = 5.30 @ 44.6 C.
28-12-2021 12:25 Temperature @ 75 C.
28-12-2021 12:32 Mash pH = 5.29 @ 44.6 C.
28-12-2021 12:44 Level = 43 mm --> 2.15 L.
28-12-2021 12:44 First runnings SG = 1.064 @ 49.8 C --> SG = 1.075 @ 20 C.
28-12-2021 12:55 First batch sparge 3 L @ 75 C.
28-12-2021 13:13 Second batch sparge 2.8 L @ 75 C.
28-12-2021 13:15 Level = 164 mm --> collected 8.2 L of wort.
28-12-2021 13:41 SG = 1.020 @ 38 C --> SG = 1.025 @ 20 C.
28-12-2021 13:20 Pause because of electrical power failure.
28-12-2021 14:15 Need 103 minutes boil time to reach an SG of 1.040.
28-12-2021 14:30 Flame on.
28-12-2021 14:42 Added 0.12 grams Lipohop K.
28-12-2021 14:47 Hot break.
28-12-2021 15:50 Level = 130 mm --> 6.5 L hot volume.
28-12-2021 16:00 1.00 grams Irish moss.
28-12-2021 16:10 Flame out --> 83 minutes boil time
28-12-2021 16:30 8.25 grams Centennial hop pellets @ 84.2 C.
28-12-2021 16:30 7.11 grams Citra hop pellets @ 84.2 C.
28-12-2021 17:02 63.5 C.
28-12-2021 17:08 25.0 C.
28-12-2021 21:25 Level = 100 mm --> 5 L cold volume.
28-12-2021 21:35 Split 1 L of the brew for this batch into a PET bottle with leaky balloon.
28-12-2021 22:00 SG = 1.042 @ 22.2 C.
28-12-2021 22:00 Pitched 1.02 grams of US-05 yeast @ 22.2 C.

Day 0 in fermentation

28-12-2021 22:00 22.2 C, SG = 1.042 .

Day 1 in Fermentation

29-12-2021 00:00 17.1 C.
29-12-2021 04:00 17.0 C.
29-12-2021 08:00 16.0 C.
29-12-2021 09:35 15.8 C.
29-12-2021 12:00 16.7 C.
29-12-2021 16:00 17.1 C.
29-12-2021 16:53 16.8 C.

Day 2 in fermentation.

30-12-2021 00:00 16.7 C.
30-12-2021 04:00 17.0 C.
30-12-2021 08:00 17.5 C.

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Batch Notes

30-12-2021 09:15 16.8 C.
30-12-2021 12:00 16.6 C.
30-12-2021 16:00 17.4 C.
30-12-2021 20:30 16.9 C.

Day 3 in fermentation

31-12-2021 00:00 16.8 C.
31-12-2021 04:00 16.7 C.
31-12-2021 08:00 16.6 C.
31-12-2021 09:30 17.3 C.
31-12-2021 12:00 16.7 C.
31-12-2021 15:15 16.6 C.
31-12-2021 20:30 16.7 C.

Day 4 in fermentation

01-01-2022 00:00 16.6 C.
01-01-2022 04:00 17.4 C.
01-01-2022 08:00 17.0 C.
01-01-2022 11:00 16.7 C.
01-01-2022 15:00 17.1 C.
01-01-2022 19:30 17.5 C.
01-01-2022 23:30 16.6 C.

Day 5 in fermentation

02-01-2022 00:00 17.1 C.
02-01-2022 04:00 17.2 C.
02-01-2022 08:00 17.6 C.
02-01-2022 10:15 17.3 C.
02-01-2022 13:00 17.0 C.
02-01-2022 17:00 17.1 C.
02-01-2022 23:00 17.0 C.

Day 6 in fermentation

03-01-2022 00:00 17.5 C.
03-01-2022 04:00 17.4 C.
03-01-2022 08:45 17.1 C.
03-01-2022 12:00 17.4 C.
03-01-2022 16:15 17.8 C.
03-01-2022 20:30 17.4 C.

Day 7 in fermentation

04-01-2022 00:00 17.7 C.
04-01-2022 04:00 17.6 C.
04-01-2022 07:45 17.2 C.
04-01-2022 12:00 17.7 C.
04-01-2022 16:00 17.1 C.
04-01-2022 20:15 17.0 C.

Day 8 in fermentation

05-01-2022 00:00 17.1 C.
05-01-2022 04:00 17.7 C.
05-01-2022 08:00 18.0 C.
05-01-2022 12:00 17.7 C.
05-01-2022 16:00 17.1 C.
05-01-2022 20:00 17.1 C.

Day 9 in fermentation

06-01-2022 00:00 17.3 C.
06-01-2022 04:00 17.2 C.
06-01-2022 08:00 17.2 C.
06-01-2022 12:00 17.3 C.
06-01-2022 16:00 17.2 C.
06-01-2022 20:00 17.5 C.

Day 10 in fermentation

07-01-2022 00:00 17.6 C.

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Batch Notes

07-01-2022 04:00 17.0 C.
07-01-2022 08:00 17.7 C.
07-01-2022 12:00 17.7 C.
07-01-2022 16:00 17.6 C.
07-01-2022 20:00 17.7 C.

Day 11 in fermentation

08-01-2022 00:00 19.4 C.
08-01-2022 04:00 19.5 C.
08-01-2022 08:00 19.2 C.
08-01-2022 12:00 19.6 C.
08-01-2022 16:00 19.5 C.
08-01-2022 20:00 19.5 C.

Day 12 in fermentation

09-01-2022 00:00 19.3 C.
09-01-2022 04:00 19.5 C.
09-01-2022 08:00 19.7 C.
09-01-2022 12:00 19.3 C.
09-01-2022 16:00 19.7 C.
09-01-2022 20:00 19.9 C.

Day 13 in fermentation

10-01-2022 00:00 19.7 C.
10-01-2022 04:00 19.9 C.
10-01-2022 08:00 19.2 C.
10-01-2022 12:00 19.8 C.
10-01-2022 16:00 19.5 C.
10-01-2022 20:00 19.3 C.

Day 14 in fermentation

11-01-2022 00:00 19.0 C.
11-01-2022 04:00 19.6 C.
11-01-2022 08:00 19.8 C.
11-01-2022 12:00 19.7 C.
11-01-2022 16:00 19.6 C.
11-01-2022 19:45 19.1 C.
11-01-2022 20:00 17.9 C, dry hopping.
11-01-2022 20:15 19.1 C.

Day 15 in fermentation

12-01-2022 00:00 17.6 C.
12-01-2022 04:00 17.9 C.
12-01-2022 08:00 17.6 C.
12-01-2022 12:00 17.5 C.
12-01-2022 16:00 16.3 C.
12-01-2022 20:00 16.4 C.

Day 16 in fermentation

13-01-2022 00:00 16.9 C.
13-01-2022 04:00 16.0 C.
13-01-2022 08:00 16.8 C.
13-01-2022 12:00 16.5 C.
13-01-2022 16:00 16.1 C.
13-01-2022 20:00 16.5 C.

Day 17 in fermentation

14-01-2022 00:00 16.8 C.
14-01-2022 04:00 16.1 C.
14-01-2022 08:00 16.7 C.
14-01-2022 12:00 16.4 C.
14-01-2022 16:00 16.4 C.
14-01-2022 20:00 17.0 C.

Day 18 in fermentation

15-01-2022 00:00 16.5 C.

Batch #18 - 28 Dec 2021

Batch Notes

15-01-2022 04:00 16.4 C.
15-01-2022 08:00 16.7 C.
15-01-2022 12:18 17.0 C, SG = 1.008, pH = 4.30.

Bottling day

15-01-2022 12:20 Filled 2 Steinie bottles (33 cl).

Day 0 in conditioning

15-01-2022 16:00

Extra Measured Values

Strike Water Temperature	72.3
Strike Water pH	5.3
Sparge Water Temperature	75
Sparge Water pH	6
Pitch Temperature	22.2

Batch Log

28 December 2021	Brew Date
28 December 2021	Fermentation Start
28 December 2021 11:00	Status: Brewing
28 December 2021 22:00	SV = 17.0 C.
29 December 2021 09:59	SV = 17.5 C.
1 January 2022 23:50	SV = 18.0 C.
7 January 2022 21:20	SV = 20.0 C.
11 January 2022 20:05	Added 1.97 grams Citra, 2.10 grams Centennial and 2.02 grams Mosaic pellet hops to the FV.
11 January 2022 22:30	SV = 18.0 C.
12 January 2022 12:29	SV = 17.0 C.
15 January 2022 12:20	Filled 2 Steinie bottles (33 cl).
15 January 2022	Bottling Date
15 January 2022 12:47	SV = 18.0 C.