

Batch #8 - 4 Apr 2021

SMaSH Simcoe - 6%

American Pale Ale

Brewer: The Thirsty Otter

Type: All Grain

IBU : 36 (Tinseth)
 BU/GU : 0.65
 Colour : 10 EBC
 Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.041
 Original Gravity : 1.054
 Total Gravity : 1.056
 Final Gravity : 1.010

Fermentables (1.33 kg)

1.325 kg - Maris Otter Pale Ale Malt 5.9 EBC...
 ^ Lot # 694-201130-111430-176081-1/1
 ^ The Malt Miller (UK) MAL-00-036
 30 g - Bottling - Sugar, Table (Sucrose) 2 EBC
 ^ Albert Heijn (NL)

Hops (30 g)

30 min - 5 g - Simcoe (T90) - 13.3% (24 IBU)
 ^ Lot # 694-201130-111430-176081-HOP-05-004-R...
 ^ The Malt Miller (UK) HOP-05-004
 5 min - 5 g - Simcoe (T90) - 13.3% (8 IBU)
 ^ Lot # 694-201130-111430-176081-HOP-05-004-R...
 ^ The Malt Miller (UK) HOP-05-004

Hop Stand

10 min hopstand @ 80 °C
 10 min - 10 g - Simcoe (T90) - 13.3% (5 IBU)
 ^ Lot # 694-201130-111430-176081-HOP-05-004-R...
 ^ The Malt Miller (UK) HOP-05-004

Dry Hops

7 days - 10 g - Simcoe (T90) - 13.3%
 ^ Lot # 694-201130-111430-176081-HOP-05-004-R...
 ^ The Malt Miller (UK) HOP-05-004

Miscellaneous

Mash - 1.1 ml - Lactic Acid 80% 80%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3
 Mash - 3.97 l - NL Spa Reine Flat Mineral Water
 ^ Lot # 20210319
 ^ AH (NL)
 Mash - 2 items - pH paper strips 5.2 - 6.8
 ^ Lot # 20200422/1
 ^ Brouwstore (NL) 013.075.7
 Sparge - 5.18 l - NL Spa Reine Flat Mineral W...
 ^ Lot # 20210319
 ^ AH (NL)
 60 min - Boil - 0.38 g - Lipohop K
 ^ Lot # LPK110
 ^ The Malt Miller (UK) CH-03-013
 10 min - Boil - 1 g - Irish Moss
 ^ Lot # 4348
 ^ Brouwstore (NL)
 10 min - Boil - 0.15 g - Servomyces
 ^ Lot # 154001112904ABV
 ^ Brouwstore (NL)
 10 min - Boil - 1 items - Wort Chiller
 ^ Brouwstore (NL) 057.020.20

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

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

Mash Water : 3.97 L
 Sparge Water : 5.18 L
 Boil Time : 60 min
 Total Water : 9.15 L



10 EBC

Brewhouse Efficiency: 71.8%
 Mash Efficiency: 73.3%

Mash Profile

01 One Step Mash (60 min)
 73.3 °C - Strike Temp
 67 °C - 60 min - Temperature

Fermentation Profile

01 Ale + DR + Conditioning
 20 °C - 10 days - Primary
 23 °C - 4 days - Diacetyl rest
 20 °C - 14 days - Carbonation
 15 °C - 28 days - Conditioning

Measurements

Mash pH: 5.5

Boil Volume: 8.25

Pre-Boil Gravity: 1.041

Post-Boil Kettle Volume: 6.5

Original Gravity: 1.051

Fermenter Top-Up:

Fermenter Volume: 5.6

Final Gravity: 1.002

Bottling Volume: 4.45

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Recipe Notes

Malt is ordered with standard crush @ The Malt Miller (<https://www.themaltmiller.co.uk/>).
No minerals added (Ca = 5, Mg = 2, Na = 3, Cl = 5, SO4 = 4, HCO3 = 17).

Batch Notes

04-04-2021 10:25 4 L Spa flat mineral water.
04-04-2021 10:26 1.1 mL Lactic acid.
04-04-2021 10:30 pH < 5.2 @ 20 C.
04-04-2021 10:38 Mash in @ 73.2 C.
Lump hunting.
04-04-2021 11:38 start batch sparging.
04-04-2021 12:45 Batch sparged with 5 L Spa flat mineral water in 3 batches.
04-04-2021 12:48 SG = 1.031 @ 48 C --> 1.041 @ 20 C.
04-04-2021 12:50 wort level = 16.5 cm --> 8.25 L pre boil volume.
04-04-2021 12:53 added 0.38 grams Lipohop K.
04-04-2021 13:07 started boil.
04-04-2021 13:37 added 5 grams Simcoe pellet hops in a hop sock.
04-04-2021 13:57 added 0.15 grams Servomyces yeast nutrient.
04-04-2021 13:57 added 1 gram Irish Moss.
04-04-2021 13:57 added wort chiller.
04-04-2021 14:02 added 5 grams Simcoe pellet hops in a hop sock.
04-04-2021 14:08 flame out
04-04-2021 14:42 start hop stand @ 79.8 C.
04-04-2021 14:42 added 10 grams Simcoe pellet hops in hop sock
04-04-2021 14:52 end hop stand @ 73.3 C.
04-04-2021 15:15 wort level = 13 cm --> 6.5 L post boil volume.
04-04-2021 15:18 SG = 1.050 @ 24.8 C --> 1.051 @ 20 C.
04-04-2021 15:20 ~5.3 L wort in the fermenter.
04-04-2021 15:45 pitched 5 grams US-05 yeast @ 22.7 C (from opened package of previous brew).

Day 0 in fermentation

04-04-2021 15:45 22.7 C, dp = 0 mm H2O, 1.051.
04-04-2021 18:33 19.2 C, dp = 0 mm H2O, no bubbles.
04-04-2021 21:53 19.5 C, dp = 30 mm H2O, no bubbles.

Day 1 in fermentation

05-04-2021 08:59 19.5 C, dp = 50 mm H2O, few bubbles.
05-04-2021 11:23 19.8 C, dp = 50 mm H2O, many bubbles.
05-04-2021 13:15 19.5 C, dp = 50 mm H2O, many bubbles.
05-04-2021 17:13 19.3 C, dp = 50 mm H2O, many bubbles.
05-04-2021 23:40 19.7 C, dp = 50 mm H2O, many bubbles.

Day 2 in fermentation

06-04-2021 08:21 19.7 C, dp = 50 mm H2O, many bubbles.
06-04-2021 12:42 19.8 C, dp = 50 mm H2O, many bubbles.
06-04-2021 15:22 19.9 C, dp = 50 mm H2O, many bubbles.
06-04-2021 20:22 19.5 C, dp = 50 mm H2O, many bubbles.
06-04-2021 22:50 20.0 C, dp = 50 mm H2O, many bubbles.

Day 3 in fermentation

07-04-2021 09:29 19.9 C, dp = 50 mm H2O, many bubbles.
07-04-2021 11:32 19.5 C, dp = 50 mm H2O, many bubbles.
07-04-2021 16:37 19.5 C, dp = 50 mm H2O, many bubbles.
07-04-2021 22:58 20.0 C, dp = 50 mm H2O, many bubbles.

Day 4 in fermentation

08-04-2021 07:51 19.0 C, dp = 50 mm H2O, many bubbles.
08-04-2021 13:12 20.0 C, dp = 50 mm H2O, many bubbles.
08-04-2021 17:12 19.9 C, dp = 50 mm H2O, many bubbles.
08-04-2021 23:14 19.3 C, dp = 50 mm H2O, many bubbles.

Day 5 in fermentation

09-04-2021 07:00 19.7 C, dp = 50 mm H2O, many bubbles.
09-04-2021 14:19 19.9 C, dp = 50 mm H2O, few bubbles.
09-04-2021 22:17 19.8 C, dp = 50 mm H2O, few bubbles.

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Batch Notes

Day 6 in fermentation

10-04-2021 09:39 19.6 C, dp = 50 mm H2O, few bubbles.
10-04-2021 15:26 18.9 C, dp = 50 mm H2O, few bubbles.
10-04-2021 15:26 PET bottle with experiment shaken not stirred..
10-04-2021 22:16 19.4 C, dp = 50 mm H2O, many bubbles.

Day 7 in fermentation

11-04-2021 09:23 19.5 C, dp = 50 mm H2O, no bubbles.
11-04-2021 13:42 19.0 C, dp = 48 mm H2O, no bubbles.
11-04-2021 14:50 added 10 gram Simcoe pellet hops for dry hopping.
11-04-2021 14:50 19.4 C, dp = 0 mm H2O, no bubbles.
11-04-2021 17:29 18.9 C, dp = 45 mm H2O, no bubbles.
11-04-2021 18:40 18.8 C, dp = 5 mm H2O, no bubbles.
11-04-2021 21:50 19.2 C, dp = 2 mm H2O, no bubbles.

Day 8 in fermentation

12-04-2021 08:13 19.4 C, dp = 1 mm H2O, no bubbles.
12-04-2021 13:39 19.0 C, dp = 20 mm H2O, no bubbles.
12-04-2021 17:40 19.1 C, dp = 15 mm H2O, no bubbles.
12-04-2021 22:27 19.0 C, dp = 20 mm H2O, no bubbles.

Day 9 in fermentation

13-04-2021 07:52 19.7 C, dp = 2 mm H2O, no bubbles.
13-04-2021 12:10 19.8 C, dp = 45 mm H2O, no bubbles.
13-04-2021 19:00 19.2 C, dp = 1 mm H2O, no bubbles.
13-04-2021 23:04 19.1 C, dp = 1 mm H2O, no bubbles.

Day 10 in fermentation

14-04-2021 08:15 19.4 C, dp = 2 mm H2O, no bubbles.
14-04-2021 08:22 SV = 23.0 C
14-04-2021 12:10 21.7 C, dp = 4 mm H2O, no bubbles.
14-04-2021 20:00 22.3 C, dp = 1 mm H2O, no bubbles.
14-04-2021 23:21 23.0 C, dp = 20 mm H2O, no bubbles.

Day 11 in fermentation

15-04-2021 07:27 22.7 C, dp = 3 mm H2O, no bubbles.
15-04-2021 15:40 22.1 C, dp = 3 mm H2O, no bubbles.
15-04-2021 23:09 22.0 C, dp = 3 mm H2O, no bubbles.

Day 12 in fermentation

16-04-2021 07:30 22.0 C, dp = 1 mm H2O, no bubbles.
16-04-2021 12:38 22.1 C, dp = 15 mm H2O, no bubbles.
16-04-2021 18:07 22.8 C, dp = 3 mm H2O, no bubbles.

Day 13 in fermentation

17-04-2021 09:04 22.0 C, dp = 2 mm H2O, no bubbles.
17-04-2021 12:02 23.0 C, dp = 1 mm H2O, no bubbles.
17-04-2021 16:18 23.0 C, dp = 1 mm H2O, no bubbles.
17-04-2021 21:49 22.3 C, dp = 0 mm H2O, no bubbles.

Day 14 in fermentation

18-04-2021 09:24 22.8 C, dp = 0 mm H2O, no bubbles.
18-04-2021 14:23 22.4 C, dp = 40 mm H2O, no bubbles.
18-04-2021 18:58 21.6 C, dp = 0 mm H2O, no bubbles.
18-04-2021 20:58 19.6 C, dp = 0 mm H2O, SG = 1.002.

Botling day

18-04-2021 14:45 heated 350 mL tap water with 30 grams table sugar to the boil.
18-04-2021 21:34 Filled 13.5 Steinie bottles (33 cl).

Day 1 in conditioning

19-04-2021 09:30 19.6 C.
19-04-2021 13:25 19.6 C.
19-04-2021 18:51 19.2 C.
19-04-2021 23:05 20.0 C.

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Batch Notes

Day 2 in conditioning

20-04-2021 07:52 19.6 C.
20-04-2021 12:43 20.0 C.
20-04-2021 18:47 19.0 C.
20-04-2021 20:21 20.1 C.

Day 3 in conditioning

21-04-2021 05:40 20.1 C.
21-04-2021 12:29 19.9 C.
21-04-2021 19:33 19.8 C.

Day 4 in conditioning

22-04-2021 08:35 18.9 C.
22-04-2021 12:53 20.0 C.
22-04-2021 17:20 19.0 C.
22-04-2021 21:02 20.1 C.

Day 5 in conditioning

23-04-2021 05:59 19.0 C.
23-04-2021 12:50 19.8 C.
23-04-2021 18:57 20.0 C.
23-04-2021 22:42 19.0 C.

Day 6 in conditioning

24-04-2021 10:16 20.0 C.
24-04-2021 14:37 19.1 C.
24-04-2021 20:05 19.4 C.
24-04-2021 23:45 19.6 C.

Day 7 in conditioning

25-04-2021 09:03 20.0 C.
25-04-2021 12:15 19.0 C.
25-04-2021 19:35 19.0 C.
25-04-2021 23:41 19.6 C.

Day 8 in conditioning

26-04-2021 08:14 19.0 C.
26-04-2021 12:52 20.0 C.
26-04-2021 18:50 19.6 C.
26-04-2021 23:42 19.0 C.

Day 9 in conditioning

27-04-2021 08:51 19.0 C.
27-04-2021 15:22 19.0 C.
27-04-2021 21:16 20.0 C.

Day 10 in conditioning

28-04-2021 08:45 19.2 C.
28-04-2021 13:46 19.3 C.
28-04-2021 23:19 19.0 C.

Day 11 in conditioning

29-04-2021 09:44 20.0 C.
29-04-2021 17:09 20.0 C.
29-04-2021 23:57 20.1 C.

Day 12 in conditioning

30-04-2021 07:47 20.0 C.
30-04-2021 12:25 19.6 C.
30-04-2021 21:09 20.0 C.

Day 13 in conditioning

01-05-2021 11:09 19.9 C.
01-05-2021 17:53 19.9 C.
01-05-2021 23:40 19.1 C.

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Batch Notes

Day 14 in conditioning

02-05-2021 08:25 19.6 C.
02-05-2021 14:35 transferred bottles to the cellar.
02-05-2021 18:12 17.3 C.
02-05-2021 23:15 16.5 C.

Day 15 in conditioning

03-05-2021 09:33 16.4 C.
03-05-2021 20:17 16.0 C.
03-05-2021 23:51 16.9 C.

Day 16 in conditioning

04-05-2021 08:15 16.2 C.
04-05-2021 14:30 16.5 C.
04-05-2021 20:30 16.3 C.
04-05-2021 23:44 16.2 C.

Day 17 in conditioning

05-05-2021 10:08 15.7 C.
05-05-2021 16:27 16.0 C.
05-05-2021 23:58 16.5 C.

Day 18 in conditioning

06-05-2021 08:20 16.4 C.
06-05-2021 16:26 16.4 C.
06-05-2021 23:45 16.9 C.

Day 19 in conditioning

07-05-2021 08:22 16.6 C.
07-05-2021 12:53 16.6 C.
07-05-2021 19:36 16.8 C.

Day 20 in conditioning

08-05-2021 00:08 16.2 C.
08-05-2021 10:44 16.0 C.
08-05-2021 15:47 16.0 C.
08-05-2021 22:29 16.5 C.

Day 21 in conditioning

09-05-2021 09:46 16.2 C.
09-05-2021 16:46 16.9 C.
09-05-2021 23:19 16.7 C.

Day 22 in conditioning

10-05-2021 10:26 16.0 C.

Day 23 in conditioning

11-05-2021 10:11 16.2 C.
11-05-2021 15:00 16.5 C.
11-05-2021 19:21 16.7 C.
11-05-2021 23:56 16.9 C.

Day 24 in conditioning

12-05-2021 09:21 16.7 C.
12-05-2021 13:41 16.7 C.
12-05-2021 18:22 16.8 C.
12-05-2021 22:16 17.0 C.

Day 25 in conditioning

13-05-2021 09:44 17.0 C.
13-05-2021 12:57 17.0 C.
13-05-2021 17:50 17.2 C.
13-05-2021 23:24 17.8 C.

Day 26 in conditioning

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Batch Notes

14-05-2021 10:26 17.2 C.
14-05-2021 13:31 17.2 C.
14-05-2021 19:21 17.1 C.
14-05-2021 23:52 17.2 C.

Day 27 in conditioning
15-05-2021 10:07 17.1 C.
15-05-2021 14:38 17.9 C.
15-05-2021 18:41 17.0 C.
15-05-2021 23:09 17.2 C.

Day 28 in conditioning
16-05-2021 11:48 17.8 C.
16-05-2021 19:18 17.9 C.
16-05-2021 23:55 17.1 C.

Day 29 in conditioning
17-05-2021 08:02 17.2 C.
17-05-2021 14:03 17.2 C.
17-05-2021 20:08 17.3 C.
17-05-2021 23:23 17.3 C.

Day 30 in conditioning
18-05-2021 07:40 17.3 C.
18-05-2021 15:30 17.2 C.
18-05-2021 21:43 17.4 C.

Day 31 in conditioning
19-05-2021 09:58 17.5 C.
19-05-2021 12:50 17.5 C.
19-05-2021 20:30 17.8 C.

Day 32 in conditioning
20-05-2021 10:51 17.7 C.
20-05-2021 14:33 17.7 C.
20-05-2021 18:26 17.7 C.

Day 33 in conditioning
21-05-2021 07:42 17.2 C.
21-05-2021 12:40 17.9 C.
21-05-2021 17:55 17.6 C.
21-05-2021 23:49 17.4 C.

Day 34 in conditioning
22-05-2021 11:08 16.9 C.
22-05-2021 14:23 16.9 C.
22-05-2021 23:02 17.0 C.

Day 35 in conditioning
23-05-2021 09:56 16.9 C.
23-05-2021 18:37 16.7 C.
23-05-2021 23:53 17.2 C.

Day 36 in conditioning
24-05-2021 08:52 17.2 C.
24-05-2021 15:35 17.3 C.
24-05-2021 23:43 17.6 C.

Day 37 in conditioning
25-05-2021 10:10 17.3 C.
25-05-2021 13:52 17.4 C.
25-05-2021 23:53 17.2 C.

Day 38 in conditioning
26-05-2021 08:56 17.0 C.
26-05-2021 14:56 17.0 C.

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Batch Notes

26-05-2021 23:03 16.9 C.

Day 39 in conditioning

27-05-2021 08:36 16.9 C.

27-05-2021 12:44 16.8 C.

27-05-2021 21:29 17.2 C.

Day 40 in conditioning

28-05-2021 08:52 17.2 C.

28-05-2021 18:30 17.6 C.

28-05-2021 22:09 17.8 C.

Day 41 in conditioning

29-05-2021 09:40 17.1 C.

29-05-2021 15:45 17.4 C.

29-05-2021 22:02 17.8 C.

Day 42 in conditioning

30-05-2021 09:24 17.0 C.

30-05-2021 16:32 17.0 C.

30-05-2021 22:47 17.2 C.

Day 43 in conditioning

31-05-2021 08:39 17.7 C.

31-05-2021 16:13 17.9 C.

31-05-2021 23:20 17.5 C.

Day 44 in conditioning

01-06-2021 07:50 17.1 C.

01-06-2021 17:57 17.5 C.

01-06-2021 23:09 17.0 C.

Extra Measured Values

Strike Temperature 73.2

Strike Water pH 5.2

Sparge Water pH 6

Sparge Water Temperature 70

Pitch Temperature 22.7

Batch Log

4 April 2021 Brew Date

4 April 2021 Fermentation Start

4 April 2021 10:38 Status: Brewing

4 April 2021 15:45 SV = 20.0 C

4 April 2021 15:45 Status: Fermenting

11 April 2021 14:50 Added 10 grams Simcoe for dry hopping

14 April 2021 08:22 SV = 23.0 C

18 April 2021 Bottling Date

18 April 2021 21:34 Filled 13.5 Steinie bottles (33 cl)

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Batch Log

18 April 2021 21:35	Status: Conditioning
1 June 2021 23:15	Status: Completed

Taste

1.4 / 5.0