# Batch #4 - 24 Oct 2020



5 EBC

### 04 SMaSH Fuggle - 4.3%

British Golden Ale Brewer: The Thirsty Otter

Type: All Grain

IBU : 27 (Tinseth)
Colour : 5 EBC
Carbonation : 2.4 CO2-vol

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

Fermentables (1.03 kg)

1 kg - Extra Pale Maris Otter 3.1 EBC (97.1%) 30 g - Bottling - Sugar, Table (Sucrose) 2 EB...

Hops (23 g)

30 min - 7 g - Fuggle (Whole) - 5% (14 IBU) 15 min - 8 g - Fuggle (Whole) - 5% (11 IBU)

Hop Stand

15 min hopstand @ 80 °C

15 min - 8 g - Fuggle (Whole) - 5% (2 IBU)

Miscellaneous

Mash - 0.2 ml - Calcium Chloride (CaCl2) 33 %... Mash - 0.56 g - Epsom Salt (MgSO4) Mash - 1.2 ml - Lactic Acid 80% 80% Mash - 2 items - pH paper strips 5.2 - 6.8

60 min - Boil - 0.19 g - Lipohop K 10 min - Boil - 1 g - Irish Moss

10 min - Boil - 0.05 g - Lallemand Servomyces

10 min - Boil - 1 items - Wort Chiller

Bottling - 12 items - 33 cl Steinie bottle (s...

Yeast

 $0.5~\mathrm{pkg}$  - Neales Brewing Supplies Classic Eng...

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

Brewhouse Efficiency: 71.8% Mash Efficiency: 73.3%

Mash Profile

01 One Step Mash (60 min) 68.7 °C - Strike Temp

63 °C - 60 min - Temperature

Fermentation Profile

Ale

20 °C - 11 days - Primary 20 °C - 44 days - Conditioning

Water Profile

NL Hoofddorp Rein Tap Water (2020-Q1 WQR) (St... Ca 43 Mg 15 Na 67 Cl 75 SO 68

SO/Cl ratio: 0.9 Mash pH: 5.43

Measurements

Mash pH: 5.5

Boil Volume: 7.35

Pre-Boil Gravity: 1.031

Post-Boil Gravity: 1.039

Post-Boil Kettle Volume: 6

Original Gravity: 1.041

Fermenter Top-Up:

Fermenter Volume: 5.6

Final Gravity: 1.007

Bottling Volume: 4

#### Recipe Notes

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

### Batch Notes

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#### **Batch Notes**

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23-10-2020
Prepared 4 L pre-boiled water.
Brew day
24-10-2020 11:30 added:
3L pre-boiled mash water.
1.2 mL Lactic acid.
0.3 mL Calciumchloride.
0.56 g Epsom salt.
Measure strike water pH = < 5.2 @ 25 C.
24-10-2020 12:00 mash in @ 68.9 C.
lump hunting and stirring.
24-10-2020 12:15 Mash pH = 5.5 @ 60 C.
24-10-2020 13:17 first wort SG = 1.063 @ 42.5 C --> 1.070 @ 20 C.
Sparged with 3.6 L @ 65 C.
SG = 1.030 @ 44.5 C --> 1.038 @ 20 C.
Collected of wort: 5.6 L.
Added 1.3 L @ 40 C for a 2nd sparge.
SG = 1.025 @ 44.3 C --> 1.033 @ 20 C.
Collected wort: 6.9 L.
Added another 0.45 L water for a pre-boil gravity of 1.031.
Collected wort: 7.35 L pre-boil volume.
Added hops for hopstand @ 82 C.
End of hopstand @ 75.0 C.
Post-boil SG = 1.039 @ 27.8 C --> OG = 1.041 @ 20 C.
24-10-2020 17:07 @ 22.7 C.
Fermentation
Day 0 in fermentation
24-10-2020 18:24 @ 21.7 C pitched 5 grams yeast.
24-10-2020 20:15 @ 21.7 C, dp = 0.01 mm H2O.
24-10-2020 21:58 @ 21.7 C., dp = 0.01 mm H20.
24-10-2020 23:26 @ 20.4 C, dp = 30 mm H2O, fermentation has started, few bubbles.
Day 1 in fermentation
25-10-2020 00:51 @ 20.0 C, dp = 50 mm H2O, few bubbles.
25-10-2020 07:03 @ 20.9 C, dp = 50 mm H2O, many bubbles. 25-10-2020 12:07 @ 20.0 C, dp = 50 mm H2O, many bubbles. 25-10-2020 15:10 @ 20.4 C, dp = 50 mm H2O, many bubbles.
25-10-2020 19:11 @ 20.6 C, dp = 50 mm H2O, many bubbles.
25-10-2020 21:30 @ 21.0 C, dp = 50 mm H2O, many bubbles.
Day 2 in fermentation
26-10-2020 04:30 @ 19.1 C, dp = 40 mm H20, no bubbles.
26-10-2020 07:46 @ 19.1 C, dp = 25 mm H2O, no bubbles.
26-10-2020 10:18 @ 19.7 C, dp = 20 mm H2O, no bubbles.
26-10-2020 15:43 @ 19.6 C, dp = 12 mm H2O, no bubbles.
26-10-2020 20:54 @ 18.1 C, dp = 10 mm H2O, no bubbles.
26-10-2020 23:45 @ 18.1 C, dp = 5 mm H2O, no bubbles.
Day 3 in fermentation
27-10-2020 07:25 @ 18.2 C, dp = 2 mm H2O, no bubbles.
27-10-2020 12:19 @ 18.9 C, dp = 2 mm H2O, no bubbles.
27-10-2020 15:42 @ 18.9 C, dp = 3 mm H2O, no bubbles.
27-10-2020 20:30 @ 18.4 C, dp = 2 mm H2O, no bubbles.
Day 4 in fermentation
28-10-2020 00:16 @ 18.5 C, dp = 2 mm H2O, no bubbles.
28-10-2020 08:08 @ 18.0 C, dp = 1 mm H2O, no bubbles.
28-10-2020 13:43 @ 18.9 C, dp = 1 mm H2O, no bubbles.
28-10-2020 18:52 @ 18.7 C, dp = 1 mm H2O, no bubbles.
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#### **Batch Notes**

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28-10-2020 23:55 @ 18.9 C, dp = 0.5 mm H2O, no bubbles.
Day 5 in fermentation
29-10-2020 08:24 @ 18.9 C, dp = 0.5 mm H2O, no bubbles. 29-10-2020 12:44 @ 18.4 C, dp = 0.5 mm H2O, no bubbles. 29-10-2020 20:05 @ 18.3 C, dp = 0.1 mm H2O, no bubbles.
29-10-2020 23:43 @ 18.2 C, dp = 1 mm H2O, no bubbles.
Day 6 in fermentation
30-10-2020 08:29 @ 18.2 C, dp =0.1 mm H2O, no bubbles.
30-10-2020 14:08 @ 18.4 C, dp =0.1 mm H20, no bubbles.  
30-10-2020 18:36 @ 18.5 C, dp =0.1 mm H20, no bubbles.
30-10-2020 23:41 @ 18.7 C, dp =0.1 mm H2O, no bubbles.
Day 7 in fermentation
31-10-2020 08:32 @ 18.8 C, dp =0.1 mm H2O, no bubbles.
31-10-2020 14:21 @ 18.0 C, dp =0.1 mm H2O, no bubbles. 31-10-2020 19:25 @ 18.0 C, dp =0.1 mm H2O, no bubbles. 31-10-2020 23:43 @ 18.3 C, dp =0.1 mm H2O, no bubbles.
Day 8 in fermentation
01-11-2020 09:01 @ 18.7 C, dp = 0.1 mm H20, no bubbles.
01-11-2020 13:22 @ 18.5 C, dp = 0.1 mm H2O, no bubbles. 01-11-2020 18:41 @ 18.0 C, dp = 0.1 mm H2O, no bubbles. 01-11-2020 23:28 @ 18.4 C, dp = 0.1 mm H2O, no bubbles.
Day 9 in fermentation
02-11-2020 08:09 @ 18.0 C, dp = 0.1 mm H2O, no bubbles.
02-11-2020 13:24 @ 18.2 C, dp = 0.1 mm H2O, no bubbles. 02-11-2020 18:07 @ 18.5 C, dp = 0.1 mm H2O, no bubbles.
Day 10 in fermentation
03-11-2020 00:29 @ 18.1 C, dp = 0.1 mm H2O, no bubbles.
03-11-2020 07:46 @ 18.6 C, dp = 0.1 mm H20, no bubbles.
03-11-2020 13:16 @ 18.4 C, dp = 0.1 mm H2O, no bubbles.
03-11-2020 19:30 @ 18.2 C, dp = 0.1 mm H20, no bubbles. 03-11-2020 23:30 @ 18.7 C, dp = 0.1 mm H20, no bubbles.
Day 11 in fermentation
04-11-2020 08:11 @ 18.4 C, dp = 0.1 mm H2O, no bubbles.
04-11-2020 13:26 @ 18.7 C, dp = 0.1 mm H2O, no bubbles.
04-11-2020 17:30 @ 18.1 C, dp = 0.1 mm H20, no bubbles. 04-11-2020 19:30 @ 18.0 C, dp = 0.1 mm H20, no bubbles.
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Batch Log	
24 October 2020	Brew Date
24 October 2020	Fermentation Start
24 October 2020 12:00	Status: Brewing
24 October 2020 18:27	Status: Fermenting
4 November 2020	Bottling Date
4 November 2020 20:15	12 Steinie bottles (33 cl) filled.