

# Batch #4 - 24 Oct 2020

## 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 - Lallemend Servomyces  
 10 min - Boil - 1 items - Wort Chiller  
 Bottling - 15 items - 33 cl Steinie bottle (s...

### Yeast

0.5 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%



5 EBC

### Mash Profile

01 One Step Mash (60 min)  
 68.7 °C - Strike Temp  
 63 °C - 60 min - Temperature

### Fermentation Profile

Ale  
 20 °C - 10 days - Primary  
 20 °C - 45 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:  
 Bottling Volume:

### Recipe Notes

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

### Batch Notes

# Batch #4 - 24 Oct 2020

## Batch Notes

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 H2O.

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 H2O, 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.

# Batch #4 - 24 Oct 2020

## Batch Notes

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

## 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
3 November 2020	Bottling Date