

Tetley's XK Bitter Beer (1868)

Historical Beer - Other (27)

Type: All Grain

Batch Size: 45.00 L

Boil Size: 63.94 L

Boil Time: 90 min

End of Boil Vol: 51.04 L

Final Bottling Vol: 41.00 L

Fermentation: Ale, Strong, Conical
Fermenter

Date: 20 Nov 2020

Brewer: Peebee

Asst Brewer:

Equipment: Paul's HERMS/RIMS kit
(40L)

Efficiency: 72.00 %

Est Mash Efficiency: 78.4 %

Taste Rating: 30.0



Taste Notes:

Prepare for Brewing

- ☐ Prepare first starter: 1.53 L with 150.7 g dry extract, then decant and create second starter: 1.72 L with 169.5 g DME
- ☐ Clean and Prepare Brewing Equipment
- ☐ Total Water Needed: 72.30 L
- ☐ Mash Water Acid: None

Water Prep

| Amt | Name | Type | # | %/IBU | Volume |
|-----------|---|-------------|----|-------|--------|
| 38.50 L | LIQUOR (sparge) -- Llandychmygol (zone: 2014 B06) | Water | 1 | - | - |
| 33.80 L | LIQUOR (mash) -- Llandychmygol (zone: 2014 B06) | Water | 2 | - | - |
| 24.20 L | LIQUOR (extras) -- Llandychmygol (zone: 2014 B06) | Water | 3 | - | - |
| 130.00 mg | Sodium Metabisulphite (Mash) | Water Agent | 4 | - | - |
| 13.14 ml | Calcium Chloride (32.0% solution) (Mash) | Water Agent | 5 | - | - |
| 13.14 g | Gypsum (Calcium Sulfate) (Mash) | Water Agent | 6 | - | - |
| 2.13 g | Salt (Mash) | Water Agent | 7 | - | - |
| 1.42 g | Epsom Salt (MgSO4) (Mash) | Water Agent | 8 | - | - |
| 1.42 g | Magnesium Chloride (Mash) | Water Agent | 9 | - | - |
| 1.07 g | Baking Soda (Mash) | Water Agent | 10 | - | - |

Mash or Steep Grains

Mash Ingredients

| Amt | Name | Type | # | %/IBU | Volume |
|-----------|--|-------------|----|--------|--------|
| 5.66 kg | Chevallier Heritage Malt (Crisp) (6.5 EBC) | Grain | 11 | 50.0 % | 3.69 L |
| 4.30 kg | Maris Otter Ale Malt (Crisp) (6.5 EBC) | Grain | 12 | 38.0 % | 2.80 L |
| 1.36 kg | Vienna Malt (Crisp) (8.0 EBC) | Grain | 13 | 12.0 % | 0.89 L |
| 220.00 mg | Sodium Metabisulphite (Sparge) | Water Agent | 14 | - | - |
| 22.57 ml | Calcium Chloride (32.0% solution) (Sparge) | Water Agent | 15 | - | - |
| 22.57 g | Gypsum (Calcium Sulfate) (Sparge) | Water Agent | 16 | - | - |
| 4.44 g | Magnesium Chloride (Sparge) | Water Agent | 17 | - | - |
| 3.66 g | Salt (Sparge) | Water Agent | 18 | - | - |
| 2.44 g | Epsom Salt (MgSO4) (Sparge) | Water Agent | 19 | - | - |
| 0.66 ml | Phosphoric Acid (81%) (Sparge) | Water Agent | 20 | - | - |

Mash Steps

| Name | Description | Step Temperature | Step Time |
|------------------------|-------------------------------|------------------|-----------|
| Mash in (maltose rest) | Add 33.8 L of water at 70.7 C | 64.0 C | 85 min |
| Maltose Rest (cont.) | Heat to 67.0 C over 20 min | 67.0 C | 10 min |
| Dextrinization Rest | Heat to 69.0 C over 20 min | 69.0 C | 10 min |
| Mash Out | Heat to 75.0 C over 20 min | 75.0 C | 0 min |

- ☐ Sparge Water Acid: None
- ☐ Fly sparge with 38.48 L water at 75.0 C
- ☐ Add water to achieve boil volume of 63.94 L
- ☐ Estimated pre-boil gravity is 1.043 SG

Boil Ingredients

| Amt | Name | Type | # | %/IBU | Volume |
|------------|---|--------|----|-----------|--------|
| 85.0 g | Fuggles (Aged 12 + 0 months) (2019) [3.94 %] - Boil 9... | Hop | 21 | 18.0 IBUs | - |
| 19.0 g | Fuggles (Aged 12 + 0 months) (2019) [3.94 %] - Boil 3... | Hop | 22 | 3.2 IBUs | - |
| 50.0 g | Goldings (Aged 12 + 0 months) (2019) [3.86 %] - Boil 2... | Hop | 23 | 7.1 IBUs | - |
| 50.0 g | Saaz (Aged 12 + 0 months) (2019) [3.02 %] - Boil 20.0... | Hop | 24 | 5.6 IBUs | - |
| 0.50 Items | Protafloc Tablet (Boil 15.0 mins) | Fining | 25 | - | - |

Steeped Hops

| Amt | Name | Type | # | %/IBU | Volume |
|--------|--|------|----|----------|--------|
| 40.0 g | Goldings (Aged 12 + 0 months) (2019) [3.86 %] - Steep... | Hop | 26 | 2.0 IBUs | - |
| 40.0 g | Saaz (Aged 12 + 0 months) (2019) [3.02 %] - Steep/W... | Hop | 27 | 1.6 IBUs | - |

- ☐ Estimated Post Boil Vol: 51.04 L and Est Post Boil Gravity: 1.056 SG

Cool and Transfer Wort

- ☐ Cool wort to fermentation temperature
☐ Transfer wort to fermenter
☐ Add water if needed to achieve final volume of 45.00 L

Pitch Yeast and Measure Gravity and Volume

Fermentation Ingredients

| Amt | Name | Type | # | %/IBU | Volume |
|---------|--|-------|----|-------|--------|
| 1.0 pkg | West Yorkshire Ale (Wyeast Labs #1469) | Yeast | 28 | - | - |

- ☐ Measure Actual Original Gravity _____ (Target: 1.056 SG)
☐ Measure Actual Batch Volume _____ (Target: 45.00 L)

Fermentation

- ☐ 20 Nov 2020 - Primary Fermentation (3.00 days at 19.0 C ending at 19.0 C)
☐ 23 Nov 2020 - Secondary Fermentation (7.00 days at 19.0 C ending at 16.0 C)

Dry Hop and Bottle/Keg

Dry Hop/Bottling Ingredients

| Amt | Name | Type | # | %/IBU | Volume |
|--------|--|------|----|----------|--------|
| 10.0 g | Goldings (Aged 12 + 0 months) (2019) [3.86 %] - 3.0 D... | Hop | 29 | 0.0 IBUs | - |
| 10.0 g | Saaz (Aged 12 + 0 months) (2019) [3.02 %] - 3.0 Days... | Hop | 30 | 0.0 IBUs | - |

- ☐ Measure Final Gravity: _____ (Estimate: 1.017 SG)
☐ Date Bottled/Kegged: 30 Nov 2020 - Carbonation: Keg with 39.26 g Granulated Sugar
☐ Age beer for 15.00 days at 16.0 C
☐ 15 Dec 2020 - Drink and enjoy!

Notes

<https://oldbeersandbrewing.blogspot.com/2020/01/joshua-tetley-sons-x-k-bitter-beer-1868.html?m=0>

<https://www.thehomebrewforum.co.uk/threads/victorian-bitter.89264/post-946297>