Captain Cooker Clone (AG)

Spice, Herb or Vegetable Beer (30 A)

Type: All Grain
Batch Size: 23.00 L
Boil Size: 29.30 L
Boil Time: 80 min
Final Bottling Vol: 22.00 L
Fermentation: Lager, Three Stage

Date: 12 Apr 2020
Efficiency: 75.00 %
Est Mash Efficiency: 81.5 %



Brewing Notes:
This recipe is scaled from the recipe supplied by the brewery with the following modifications:
- The hop used for the late kettle additions in the original recipe is grown by the brewery and unavailable to the public. This has been substituted with the same hop used for the dry hop addition as per the brewer.
- The brewery provided at total amount of gypsum to use which has been moved to the boil for addition if available. To achieve the same pH adjustment in the mash, acid malt has been included in the recipe.
- The original recipe uses a small amount of Pacific Gem for the bittering addition (at 80 min). This has been substituted with an appropriate amount of Wakatu to maintain the same estimated IBUs. If available, you can substitute the 80 min 43g Wakatu addition with 17g of Pacific Gem.
- The original recipe uses carrageenan (e.g., Irish moss) as a kettle fining. This has been replaced with Whirlfloc.

This recipe has to be fermented cool and will benefit from lagering for at least 2 weeks if kegged or after bottle conditioning is complete. It will continue to improve if stored cool.

1. The Manuka tips have not been supplied and will need to be procured by the brewer.
2. If the calcium sulphate (gypsum) is available, add to boil only as mash pH is taken care of with acid malt.
3. If available, add kettle finings and yeast nutrient 15 min before the end of boil.
4. It is recommended that the yeast be rehydrated per the manufacturer's instructions. Pitch at 13C and maintain until fermentation slows.
5. Once fermentation slows (~10 - 12 days), raise temp to 18C for a diacetyl rest.
6. After 5 days, cold crash to 2C, add dry hops and let lager for 3 weeks before packaging.
7. Carbonate to 2.6 volumes of CO2.

Mash or Steep Grains

Mash Ingredients

Amt	Name	Type	#	%/IBU	Volume
3.800 kg	Gladfield Pilsner Malt (3.8 EBC)	Grain	1	78.0 %	2.48 L
0.425 kg	Gladfield Medium Crystal Malt (111.0 EBC)	Grain	2	8.7 %	0.28 L
0.425 kg	Gladfield Wheat Malt (4.2 EBC)	Grain	3	8.7 %	0.28 L
0.200 kg	Gladfield Sour Grapes Malt (acid malt) (4.0 EBC)	Grain	4	4.1 %	0.13 L
0.020 kg	Gladfield Dark Chocolate Malt (1300.0 EBC)	Grain	5	0.4 %	0.01 L

Mash Steps

Name	Description	Step Temperature	Step Time
Saccharification	Add 16.65 L of water at 71.1 C	66.0 C	60 min
Mash Out	Heat to 79.0 C over 10 min	79.0 C	10 min

Fly sparge with 17.53 L water at 76.0 C
Add water to achieve boil volume of 29.30 L
Estimated pre-boil gravity is 1.041 SG

Boil Ingredients

Amt	Name	Type	#	%/IBU	Volume
43.00 g	Wakatu (Hallertau Aroma) [6.10 %] - Boil 80.0 min	Hop	6	30.6 IBUs	-
17.00 g	Gypsum (Calcium Sulfate) (Boil)	Water Agent	7	-	-
20.00 g	Wakatu (Hallertau Aroma) [6.10 %] - Boil 25.0 min	Hop	8	10.4 IBUs	-
17.00 g	Manuka Tips (fresh) (Boil 25.0 mins)	Spice	9	-	-
0.50 Items	Whirlfloc Tablet (Boil 15.0 mins)	Fining	10	-	-
1.50 g	Yeast Nutrient (Boil 15.0 mins)	Other	11	-	-
20.00 g	Wakatu (Hallertau Aroma) [6.10 %] - Boil 5.0 min	Hop	12	5.5 IBUs	-
34.00 g	Manuka Tips (fresh) (Boil 5.0 mins)	Spice	13	-	-

Estimated Post Boil Vol: 25.97 L and Est Post Boil Gravity: 1.048 SG

Cool and Transfer Wort

Cool wort to fermentation temperature
Transfer wort to fermenter
Add water if needed to achieve final volume of 23.00 L

Pitch Yeast and Measure Gravity and Volume

Fermentation Ingredients

Amt	Name	Type	#	%/IBU	Volume
2.0 pkg	SafLager West European Lager (DCL/Fermentis #S-23) [0.02 L]	Yeast	14	-	-

Measure Actual Original Gravity _____ (Target: 1.048 SG)
Measure Actual Batch Volume _____ (Target: 23.00 L)

Fermentation

12 Apr 2020 - Primary Fermentation (12.00 days at 13.0 C ending at 13.0 C)
24 Apr 2020 - Secondary Fermentation (5.00 days at 18.0 C ending at 18.0 C)
29 Apr 2020 - Tertiary Fermentation (21.00 days at 2.0 C ending at 2.0 C)

Dry Hop and Bottle/Keg

Dry Hop/Bottling Ingredients

Amt	Name	Type	#	%/IBU	Volume
17.00 g	Wakatu (Hallertau Aroma) [6.10 %] - Dry Hop 21.0 Days	Hop	15	0.0 IBUs	-

Measure Final Gravity: _____ (Estimate: 1.011 SG)
Date Bottled/Kegged: - Carbonation: Bottle with 129.40 g Corn Sugar