League The Rooster (AG)

Red IPA (21 B)

Type: All Grain
Batch Size: 23.00 L
Boil Size: 28.50 L
Boil Time: 60 min
Final Bottling Vol: 22.00 L
Fermentation: Ale with Diacetyl Rest

Date: 29 Dec 2019
Efficiency: 75.00 %
Est Mash Efficiency: 81.5 %



Brewing Notes:
Note, this recipe uses a high sulphate to chloride ratio (3:1) when the flavour minerals are used. This is meant to accentuate the dryness and hoppiness of the beer.

1. If available, acidify the sparge water with the indicated lactic acid prior to heating to sparge temp.
2. If flavour minerals are available, add to boil only as mash pH is taken care of with acid malt.
3. If available, add yeast nutrient and kettle finings 10 - 15 min prior to the end of boil.
4. Add the whirlpool hops after cooling the wort to 80C. Maintain 80C for the entire hop stand (15 min).
5. It is recommended that the yeast be rehydrated per the manufacturers instructions. Pitch at 18C and maintain for 3 days then let rise to 20C.
6. Once the fermentation is near completion, add the dry hops and raise the temp to 22C for a diacetyl rest. Maintain temp for another 5 days.
7. If possible, cold crash for a few days before packaging.
8. Carbonate to 2.6 - 2.7 volumes of CO2.

Mash or Steep Grains

Mash Ingredients

Amt	Name	Type	#	%/IBU	Volume
2.300 kg	Gladfield Ale Malt (6.0 EBC)	Grain	1	39.7 %	1.50 L
1.320 kg	Gladfield Aurora Malt (58.0 EBC)	Grain	2	22.8 %	0.86 L
1.320 kg	Gladfield Vienna Malt (6.8 EBC)	Grain	3	22.8 %	0.86 L
0.480 kg	Gladfield Red Back Malt (65.0 EBC)	Grain	4	8.3 %	0.31 L
0.280 kg	Gladfield Shepherds Delight Malt (300.0 EBC)	Grain	5	4.8 %	0.18 L
0.100 kg	Gladfield Sour Grapes Malt (acid malt) (4.0 EBC)	Grain	6	1.7 %	0.07 L
1.50 ml	Lactic Acid (Sparge)	Water Agent	7	-	-

Mash Steps

Name	Description	Step Temperature	Step Time
Saccharification	Add 19.16 L of water at 72.2 C	67.0 C	60 min
Mash Out	Heat to 76.0 C over 10 min	76.0 C	10 min

Fly sparge with 15.15 L water at 77.0 C
Add water to achieve boil volume of 28.50 L
Estimated pre-boil gravity is 1.051 SG

Boil Ingredients

Amt	Name	Type	#	%/IBU	Volume
40.00 g	Chinook [12.40 %] - Boil 60.0 min	Hop	8	51.3 IBUs	-
9.00 g	Gypsum (Calcium Sulfate) (Boil)	Water Agent	9	-	-
3.30 g	Calcium Chloride (Boil)	Water Agent	10	-	-
0.50 Items	Whirlfloc Tablet (Boil 15.0 mins)	Fining	11	-	-
1.50 g	Yeast Nutrient (Boil 15.0 mins)	Other	12	-	-

Steeped Hops

Amt	Name	Type	#	%/IBU	Volume
35.00 g	Centennial [9.80 %] - Steep/Whirlpool 15.0 min, 80.0 C	Hop	13	3.9 IBUs	-
35.00 g	Columbus (Tomahawk) [15.30 %] - Steep/Whirlpool 15.0 min, 80.0 C	Hop	14	6.1 IBUs	-

Estimated Post Boil Vol: 26.00 L and Est Post Boil Gravity: 1.058 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	US West Coast (Mangrove Jack's #M44)	Yeast	15	-	-

Measure Actual Original Gravity _____ (Target: 1.058 SG)
Measure Actual Batch Volume _____ (Target: 23.00 L)

Fermentation

29 Dec 2019 - Primary Fermentation (3.00 days at 18.0 C ending at 18.0 C)
01 Jan 2020 - Secondary Fermentation (6.00 days at 20.0 C ending at 20.0 C)
07 Jan 2020 - Tertiary Fermentation (5.00 days at 22.0 C ending at 22.0 C)

Dry Hop and Bottle/Keg

Dry Hop/Bottling Ingredients

Amt	Name	Type	#	%/IBU	Volume
65.00 g	Centennial [9.80 %] - Dry Hop 5.0 Days	Hop	16	0.0 IBUs	-
65.00 g	Columbus (Tomahawk) [15.30 %] - Dry Hop 5.0 Days	Hop	17	0.0 IBUs	-
10.00 g	Chinook [12.40 %] - Dry Hop 5.0 Days	Hop	18	0.0 IBUs	-

Measure Final Gravity: _____ (Estimate: 1.010 SG)
Date Bottled/Kegged: - Carbonation: Bottle with 129.40 g Corn Sugar