League Sun Daze Golden Ale (AG)

British Golden Ale (12 A)

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: 12 Dec 2018
Efficiency: 75.00 %
Est Mash Efficiency: 81.5 %



Brewing Notes:
The average temperature of the 15 min hop stand should be around 85C.

1. If flavour minerals available, add to boil only as mash pH taken care of with acid malt.
2. Add the whirlpool hops at the start of cooling down the wort (e.g., when the cooling water is applied to the wort chiller).
3. Pitch at 18C, maintain for 3 days then let rise to 20C. Raise to 22C near end of fermentation for a diacetyl rest.
4. If possible, cold crash for a few days before packaging.
5. Carbonate to 2.4 - 2.5 volumes of CO2.

Mash or Steep Grains

Mash Ingredients

Amt	Name	Type	#	%/IBU	Volume
3.000 kg	Gladfield Ale Malt (6.0 EBC)	Grain	1	56.1 %	1.96 L
1.700 kg	Pale Malt, Golden Promise (Thomas Fawcett) (5.9 EBC)	Grain	2	31.8 %	1.11 L
0.350 kg	Gladfield Sour Grapes Malt (acid malt) (4.0 EBC)	Grain	3	6.5 %	0.23 L
0.300 kg	Gladfield Wheat Malt (4.2 EBC)	Grain	4	5.6 %	0.20 L

Mash Steps

Name	Description	Step Temperature	Step Time
Saccharification	Add 17.95 L of water at 70.1 C	65.0 C	60 min
Mash Out	Heat to 76.0 C over 10 min	76.0 C	10 min

Fly sparge with 15.91 L water at 76.0 C
Add water to achieve boil volume of 28.50 L
Estimated pre-boil gravity is 1.046 SG

Boil Ingredients

Amt	Name	Type	#	%/IBU	Volume
4.50 g	Gypsum (Calcium Sulfate) (Boil)	Water Agent	5	-	-
4.00 g	Calcium Chloride (Boil)	Water Agent	6	-	-
20.00 g	Goldings [5.60 %] - Boil 50.0 min	Hop	7	11.6 IBUs	-
10.00 g	Cascade [6.80 %] - Boil 50.0 min	Hop	8	7.0 IBUs	-
40.00 g	Cascade [6.80 %] - Boil 5.0 min	Hop	9	13.3 IBUs	-
30.00 g	Goldings [5.60 %] - Boil 5.0 min	Hop	10	8.2 IBUs	-

Steeped Hops

Amt	Name	Type	#	%/IBU	Volume
50.00 g	Mosaic (HBC 369) [12.60 %] - Steep/Whirlpool 15.0 min, 85.0 C	Hop	11	11.1 IBUs	-

Estimated Post Boil Vol: 26.00 L and Est Post Boil Gravity: 1.052 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	SafAle English Ale (DCL/Fermentis #S-04) [0.02 L]	Yeast	12	-	-

Measure Actual Original Gravity _____ (Target: 1.052 SG)
Measure Actual Batch Volume _____ (Target: 23.00 L)

Fermentation

12 Dec 2018 - Primary Fermentation (3.00 days at 18.0 C ending at 18.0 C)
15 Dec 2018 - Secondary Fermentation (6.00 days at 20.0 C ending at 20.0 C)
21 Dec 2018 - Tertiary Fermentation (5.00 days at 22.0 C ending at 22.0 C)

Dry Hop and Bottle/Keg

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