

IPA - Wedding

American IPA (21 A)

Type: All Grain
Batch Size: 13.00 gal
Boil Size: 16.28 gal
Boil Time: 90 min
End of Boil Vol: 14.58 gal
Final Bottling Vol: 12.25 gal
Fermentation: Ale, Single Stage

Date: 10/13/18
Brewer:
Asst Brewer:
Equipment: Pot and Cooler (10 Gal/37.8 L) - All Grain
Efficiency: 80.00 %
Est Mash Efficiency: 86.2 %
Taste Rating: 30.0



Taste Notes:

Ingredients

Amt	Name	Type	#	%/IBU	Volume
23.50 gal	Reverse Osmosis	Water	1	-	-
11.00 g	Gypsum (Calcium Sulfate) (Mash)	Water Agent	2	-	-
4.00 g	Calcium Chloride (Mash)	Water Agent	3	-	-
4.00 g	Epsom Salt (MgSO4) (Mash)	Water Agent	4	-	-
22 lbs	Pale Malt (2 Row) US (2.0 SRM)	Grain	5	80.7 %	1.72 gal
3 lbs	Munich (Dingemans) (5.5 SRM)	Grain	6	11.0 %	0.23 gal
1 lbs	Honey Malt (25.0 SRM)	Grain	7	3.7 %	0.08 gal
1 lbs 4.0 oz	Sugar, Table (Sucrose) [Boil] (1.0 SRM)	Sugar	8	4.6 %	0.09 gal
1.50 oz	Bravo [14.90 %] - Boil 60.0 min	Hop	9	29.2 IBUs	-
2.00 oz	Centennial [10.10 %] - Boil 10.0 min	Hop	10	9.6 IBUs	-
1.00 oz	Cryo - Mosaic [22.00 %] - Boil 5.0 min	Hop	11	5.7 IBUs	-
1.00 oz	Cryo - Simcoe [23.00 %] - Boil 5.0 min	Hop	12	6.0 IBUs	-
1.00 oz	Centennial [10.10 %] - Steep/Whirlpool 20.0 min, 194.4 F	Hop	13	4.0 IBUs	-
1.00 oz	Cryo - Mosaic [22.00 %] - Steep/Whirlpool 20.0 min, 194.4 F	Hop	14	8.7 IBUs	-
1.00 oz	Cryo - Simcoe [23.00 %] - Steep/Whirlpool 20.0 min, 194.4 F	Hop	15	9.1 IBUs	-
1.0 pkg	California Ale (White Labs #WLP001) [35.49 ml]	Yeast	16	-	-
1.00 oz	Cryo - Loral [22.50 %] - Dry Hop 3.0 Days	Hop	17	0.0 IBUs	-
1.00 oz	Cryo - Mosaic [22.00 %] - Dry Hop 3.0 Days	Hop	18	0.0 IBUs	-
1.00 oz	Cryo - Simcoe [23.00 %] - Dry Hop 3.0 Days	Hop	19	0.0 IBUs	-

Gravity, Alcohol Content and Color

Est Original Gravity: 1.063 SG
Est Final Gravity: 1.009 SG
Estimated Alcohol by Vol: 7.1 %
Bitterness: 72.2 IBUs
Est Color: 5.2 SRM

Measured Original Gravity: 1.063 SG
Measured Final Gravity: 1.008 SG
Actual Alcohol by Vol: 7.3 %
Calories: 209.3 kcal/12oz

Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 37.21 qt of water at 158.8 F	149.0 F	120 min

Sparge: Fly sparge with 10.90 gal water at 168.0 F

Mash Notes: Simple single infusion mash for use with most modern well modified grains (about 95% of the time).

Fermentation Readings

Fermentation Batch Age days

Date	Temp...	Gravity	
10/13/18 19:48:28	64.0 F	1.063 SG	0.8
10/15/18 17:51:25	64.0 F	1.050 SG	2.7
10/16/18 08:24:26	64.0 F	1.045 SG	3.4
10/17/18 14:43:25	64.0 F	1.038 SG	4.6
10/17/18 14:50:12	67.0 F	1.038 SG	4.6
10/18/18 13:20:54	67.0 F	1.031 SG	5.6
10/19/18 13:10:07	67.0 F	1.026 SG	6.5
10/19/18 14:10:35	70.0 F	1.026 SG	6.6
10/20/18 12:55:47	70.0 F	1.021 SG	7.5
10/20/18 14:03:32	73.0 F	1.021 SG	7.6
10/21/18 08:54:15	73.0 F	1.016 SG	8.4
10/22/18 14:28:33	73.0 F	1.010 SG	9.6
10/23/18 13:13:29	73.0 F	1.008 SG	10.6

