

Azacca_Pale_Ale-10_Gallon.xlsx

Category: 18. Pale American Ale
Style: 18B. American Pale Ale

Brewer: BEER-N-BBQ by Larry
Brew Date: July 14, 2018

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Grain Bill, Adjuncts, & Sugars		
Type	Qty lb	% of Bill
Pale Malt: Brewers Malt, 2-row (Briess)	20.00	80.0%
Munich Malt: Bonlander® Munich Malt 10L (Briess)	2.10	8.4%
Caramel Malt: Caramel Malt 20L (Briess)	2.50	10.0%
Vienna Malt: Goldpils® Vienna Malt (Briess)	0.40	1.6%

Hop Bill & Schedule						
Species	Type	Alpha (%)	Qty oz	AAU	Time (min)	
Azacca® (U.S.)	Pellet	9.8	1.50	14.7	60	
Azacca® (U.S.)	Pellet	9.8	2.00	19.6	10	
Azacca® (U.S.)	Pellet	9.8	2.50	24.5	0	

Mash Variables & Steps			
Variable/Step	Value	Actual	Units
Ambient Grain Temp	77.0	77	°F
Desired Mash Temp	153.0	152.1	°F
Water/Grist Ratio	1.25	1.25	qt/lb
Strike Water to Add	31.3	33	qt
Strike Water Temp	165.2	162.2	°F
# of Steps Required	2	 	
Add for 1st Step	13.2		qt
Drain for 1st Step	27.9		qt
Add/Drain for 2nd Step	27.9		qt
Add/Drain for 3rd Step	0.00		qt

Yeast Information			
Strain	Brand	Atten	Temp °F
SafAle S-04	Fermentis	79%	59 - 68
Other Ingredients/Additions		Amount	Time
1 Pkg SafAle US-05 for half batch		1	Ferment
1 Pkg SafAle S-04 for other half batch		1	Ferment
yeast nutrient		2 tsp	boil
Whirlfloc tablet		2	15 min

NOTES: Ran out of 2.5 lb Munich. Subbed .4 lb of Vienna. Mash tun too small for grist ratio thus changing the sparge steps from 2 to 3 on the fly (didn't follow calcs). Mashtun manifold airlocked during drain. Might add more priming holes. Kegged 2.5 wks for S-04, 3 for US-05. FG S-04: 1.008, US-05:1.007

	S-04			US-05		
	Expected	Actual	Units	Expected	Actual	
Pre-Boil Vol:	55.86	56.00	qt	Efficiency:	75.0%	72.5%
Boil Time:	60	60	min	IBUs:	32.85	31.56
Post-Boil Vol:	49.00	51.00	qt	ABV:	5.8%	6.0%
Batch Vol:	42	44.00	qt	App Atten:	79%	85.2%
				SRM:	9.5	9.2

Forced Carbonation		
(See Carbonation tab for bottling information)		
Volume of CO2 =	2.5	
Serving Temperature =	38.0	°F
Keg Pressure =	11.2	PSI

	Expected	Actual			
		Hydro meter	Refractometer ° Brix SG		
Pre-Boil SG:	1.050	1.048	12.0	1.048	Efficiency: 75.0%
OG:	1.057	1.054			IBUs: 32.85
FG:	1.012	1.008			ABV: 6.0%
					App Atte 81%
					SRM: 9.5

YouTube Channel: BEERNBBQBYLARRY
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Courtesy of
BEER-N-BBQ by Larry
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