

2018/04/08 - Helles Ale (MDA)

Name	Helles Ale (Mass Dilution Ale)			
Style	Munich Helles	Brew Date	2018-04-08	
Type	All Grain	Boil Size	26.3 gal	
IBU's	23.7	Batch Size	24 gal	
Color	3 SRM	Boil Time	60 min	
	Estimated	Actual		
Pre-Boil OG	1.039			
OG	1.042	1.040		
FG	1.011	1.006		
ABV	4.2%	4.5%		
Efficiency	80%			
Grain	36 lbs	Canadian 2-Row • 2014 Fall	97%	
	1 lbs	Weyermann Carafoam	3%	
Water Treatment		HTL (15 gal)	MT (8 gal)	
	Campden Tablets	1	1/2	
	Gypsum	1.5 g	0.8 g	
	Calc Chloride	9.6 g	5.1 g	
	Epson Salt	6.2 g	3.3 g	
	Baking Soda	0.8 g	0.4 g	
Mash	75 mins	150 F	Infusion	
	10 mins	168 F	Mash Out	
Hops	60 mins	3.0 oz	Hallertauer (6.4%)	15.5 IBU
	45 mins	1.0 oz	Hallertauer (6.4%)	4.8 IBU
	30 mins	1.0 oz	Hallertauer (6.4%)	4.0 IBU
Additions	15 mins	1	Whirlfloc Tablet	
	15 mins	1	Immersion Chiller	
Yeast	8 sachets	Safale US-05		
Fermentation	Primary	19 days	53 F	
	Cold Crash	3 days	37 F	
	Lager	28 days	37 F	

Notes	Double batch. Diluting to 20 gal. Water balanced to Ca: 54, Mg: 10, Na: 19, Cl: 75, SO4: 74 Mashed with 12 gal Set HLT to 160. Mashed in and set HLT to 152. Pre boil sg: 1064, should have been 1071 Og: 1066 Diluted to 5.0gal. Added 2gal water to 3g wort Og: 1040 SG (19 days): 1006 Tasted a bit green but great color. Cold crashed. Not my favorite. Seems a bit on the sour side.
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