

Batch 1 of Hoppy Lager

Dates

Date Brewed:	Jan 11, 2020	Date Racked:	Jan 11, 2020
Date Packaged:	Jan 11, 2020	Date Ready:	Jan 11, 2020

Selected Style and Target Specs

5D-Pale Bitter European Beer-German Pils

Minimum OG:	1.044 SG	Maximum OG:	1.050 SG
Minimum FG:	1.008 SG	Maximum FG:	1.013 SG
Minimum IBU:	22 IBU	Maximum IBU:	40 IBU
Minimum Color:	2.0 SRM	Maximum Color:	5.0 SRM

Recipe Overview

Target Wort Volume Before Boil:	14.45 US gals	Actual Wort Volume Before Boil:	14.45 US gals
Target Wort Volume After Boil:	11.90 US gals	Actual Wort Volume After Boil:	11.90 US gals
Target Volume Transferred:	10.50 US gals	Actual Volume Transferred:	10.50 US gals
Target Volume At Pitching:	10.00 US gals	Actual Volume At Pitching:	10.50 US gals
Target Volume Of Finished Beer:	9.30 US gals	Actual Volume Of Finished Beer:	9.30 US gals
Target Pre-Boil Gravity:	1.042 SG	Actual Pre-Boil Gravity:	1.047 SG
Target OG:	1.051 SG	Actual OG:	1.056 SG
Target FG:	1.012 SG	Actual FG:	1.010 SG
Target Apparent Attenuation:	75.0 %	Actual Apparent Attenuation:	81.3 %
Target ABV:	5.1 %	Actual ABV:	6.1 %
Target ABW:	4.0 %	Actual ABW:	4.8 %
Target IBU: (using Tinseth):	28.2 IBU	Actual IBU:	27.0 IBU
Target Color: (using Morey):	2.3 SRM	Actual Color:	2.3 SRM
Target Mash Efficiency:	82.0 %	Actual Mash Efficiency:	92.2 %
Target Fermentation Temp:	58 °F	Actual Fermentation Temp:	58 °F

Fermentables

Ingredient	Amount	%	MCU	When
German Pilsner Malt	10lb 0oz	50.0 %	1.1	In Mash/Steeped
US Pilsen Malt	10lb 0oz	50.0 %	0.8	In Mash/Steeped

Hops

Variety	Alpha	Amount	IBU	Form	When
US Mosaic	12.6 %	1.00 oz	23.0	Loose Pellet Hops	90 Min From End
Czech Saaz	3.0 %	2.00 oz	4.9	Loose Pellet Hops	15 Min From End
Czech Saaz	2.9 %	2.00 oz	0.4	Loose Pellet Hops	1 Min From End

Other Ingredients

Ingredient	Amount	When
Lactic Acid	0.00 oz	In Mash
Whirlfloc Tablet	0.00 oz	In Boil
Yeast Nutrient	0.00 oz	In Boil

Yeasts

Yeast Strain	Amount	Used
DCL W-34/70 Saflager	6 packs	BBD: 11-2020 Viability: 81%

Water Profile

Target Profile:	No Water Profile Chosen
Mash pH:	5.2
pH Adjusted with:	Lactic Acid

Total Calcium (ppm):	0	Total Magnesium (ppm):	0
Total Sodium (ppm):	0	Total Sulfate (ppm):	0
Total Chloride (ppm):	0	Total Bicarbonate (ppm):	0

Mash Schedule

Mash Type:	Full Mash
Schedule Name:	Single Step Infusion (66C/151F)

Step Type	Temperature	Duration
Rest at	151 °F	60

General Notes

Mash Notes

164 strike, 154 actual mash temp. Stabilized at 150-151.

Pre boil: 1.047

Boil Notes

90 hops at 4:15pm

14 (1.056) Brix post boil

Fermentation Notes

01-11-20: Pitched rehydrated year at 68° after a 35 minutes cool and transfer at 6:30 PM. BOMB.

01-12-20: Cooled to 60° overnight. Signs of fermentation at 11:15 AM.

01-13-20: Gravity sample: 1.050. Great fermentation going.

01-15-20: Average temp now 63-64°

01-16-20: Fermentation slowing and temp dropped to 60° overnight. Hooked up heater and set temp to 63°. Reached temp by 4 PM. Gravity sample: 1.010

Packaging Notes

Tasting Notes