

Troel's Recipe with tora

Belgian Pale Ale (16 B)

Type: All Grain
Batch Size: 4.16 Imp gal
Boil Size: 5.44 Imp gal
Boil Time: 60 min
End of Boil Vol: 4.99 Imp gal
Final Bottling Vol: 3.83 Imp gal
Fermentation: Lager, Two Stage

Date: 16 Jan 2017
Brewer: Joe K
Asst Brewer:
Equipment: Pot and Cooler (5 Gal/19 L) - All Grain
Efficiency: 72.00 %
Est Mash Efficiency: 82.8 %
Taste Rating: 30.0



Taste Notes:

Ingredients

Amt	Name	Type	#	%/IBU
8.50 lb	Organic Pilsner (Gambrinus) (1.6 SRM)	Grain	1	94.4 %
0.50 lb	Carared (Weyermann) (24.0 SRM)	Grain	2	5.6 %
0.75 oz	Cascade [7.00 %] - Boil 60.0 min	Hop	3	18.4 IBUs
0.50 oz	Hallertauer [4.80 %] - Boil 15.0 min	Hop	4	4.2 IBUs
0.50 oz	Hallertauer [4.80 %] - Boil 5.0 min	Hop	5	1.7 IBUs
1.0 pkg	German Lager (White Labs #WLP830)...	Yeast	6	-
1.0 pkg	Torulaspora delbrueckii (White Labs #...	Yeast	7	-
0.50 oz	Hallertauer [4.80 %] - Dry Hop 7.0 Days	Hop	8	0.0 IBUs

Gravity, Alcohol Content and Color

Est Original Gravity: 1.049 SG
Est Final Gravity: 1.008 SG
Estimated Alcohol by Vol: 5.3 %
Bitterness: 24.3 IBUs
Est Color: 4.2 SRM

Measured Original Gravity:
1.046 SG
Measured Final Gravity: 1.010 SG
Actual Alcohol by Vol: 4.7 %
Calories: 151.6 kcal/12oz

Mash Profile

Mash Name: Single Infusion, Light Body, No Mash Out
Sparge Water: 4.20 Imp gal
Sparge Temperature: 168.0 F
Adjust Temp for Equipment: TRUE
Est Mash PH: 5.70
Measured Mash PH: 5.20

Total Grain Weight: 9.00 lb
Grain Temperature: 72.0 F
Tun Temperature: 72.0 F
Target Mash PH: 5.20
Mash Acid Addition:
Sparge Acid Addition:

Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 9.37 Imp qt of water at 162.5 F	148.0 F	75 min

Sparge: Fly sparge with 4.20 Imp 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).

Carbonation and Storage

Carbonation Type: Bottle

Pressure/Weight: 3.61 oz

Keg/Bottling Temperature: 70.0 F

Fermentation: Lager, Two Stage

Volumes of CO2: 2.3

Carbonation Used: Bottle with

3.61 oz Corn Sugar

Age for: 30.00 days

Storage Temperature: 60.0 F

Notes

Created with [BeerSmith](#)