CENTENNIAL IPA

Est Batch Size: 20 L	Est Bitterness: 60 IBU	Est Color: 14 EBC
Type: All Grain **Batch Size:** 20.00 L **Boil Size:** 26.50 L	**Boil Time:** 60 min **End of Boil Vol:** 23.5 L **Final Bottling Vol:** 20.00 L	**Fermentation:** Ale, Single Stage **Efficiency:** 72.00 % **Est Mash Efficiency:** 72.0 %

Prepare for Brewing

- Hydrate yeast with 400 ml warm water
- Clean and Prepare Brewing Equipment
- Total Water Needed: 32.5 L

Mash or Steep Grains

Mash Ingredients

Amt	Name	Type	#	%/IBU	Volume
2.00 kg	CHÂTEAU PALE ALE (8.5 EBC)	Grain	1	32.8 %	1.30 L
2.00 kg	CHÂTEAU PILSEN 2RS (3.0 EBC)	Grain	2	32.8 %	1.30 L
1.00 kg	CHÂTEAU VIENNA (5.5 EBC)	Grain	3	16.4 %	0.65 L
1.00 kg	Oats, Flaked (2.0 EBC)	Grain	4	16.4 %	0.65 L
0.10 kg	CHÂTEAU CRYSTAL® (150.1 EBC)	Grain	5	1.6 %	0.07 L

Mash Steps

Name	Description	Step Temperature	Step Time
Mash In	Add 16 L of water at 74.1 C	67.2 C	60 min

- Batch sparge with 2 steps (3.5L, 13L) of 79.4 C water
- Add water to achieve boil volume of 26.50 L
- Estimated pre-boil gravity is 13 Brix

Boil Ingredients

Amt	Name	Type	#	%/IBU	Volume
20.00 g	Centennial [10.30 %] - Boil 60.0 min	Hop	6	25.7 IBUs	-
10.00 g	Centennial [10.30 %] - Boil 45.0 min	Hop	7	11.8 IBUs	-
10.00 g	Centennial [10.30 %] - Boil 30.0 min	Hop	8	9.9 IBUs	-
20.00 g	Centennial [10.30 %] - Boil 15.0 min	Hop	9	12.8 IBUs	-
8.00 ml	Spindasol SB1 (End of Boil)	Fining	11	-	-
15.00 g	Centennial [10.30 %] - Boil 0.0 min	Hop	12	0.0 IBUs	-

- Estimated Post Boil Vol: 23.5 L and Est Post Boil Gravity: 16.5 Brix

Cool and Transfer Wort

- Cool wort to fermentation temperature
- Transfer wort to fermenter
- Add water if needed to achieve final volume of 20.00 L

Pitch Yeast and Measure Gravity and Volume

Fermentation Ingredients

Amt	Name	Type	#	%/IBU	Volume
1.0 pkg	AY4 - AEB (AEB #AY4)	Yeast	13	-	-

- Measure Actual Original Gravity _____ (Target: 16.5 Brix)
- Measure Actual Batch Volume _____ (Target: 20.00 L)

Fermentation

- Primary Fermentation (14.00 days at 19.4 C ending at 19.4 C)

Dry Hop and Bottle/Keg

Dry Hop/Bottling Ingredients

Amt	Name	Type	#	%/IBU	Volume
25.00 g	Cascade [5.50 %] - 3.0 Days Before Bottling for 14.0 Days	Hop	14	0.0 IBUs	-
25.00 g	Centennial [10.00 %] - 3.0 Days Before Bottling for 14.0 Days	Hop	15	0.0 IBUs	-
8.00 ml	Spindasol SB3 (Bottling)	Fining	16	-	-

- Measure Final Gravity: _____ (Estimate: 4.5 Brix)
- Date Bottled/Kegged: _____ - Carbonation: Bottle with 92 g Table Sugar
- Age beer for 30.00 days at 18.3 C
- Drink and enjoy!