Monk's Table (AG) 23L

Created Sunday August 27th 2023

League of Brewers

Method: **All Grain** Style: **Trappist Single** Boil Time: **60 min** Batch Size: **23 liters** (fermentor volume)

Pre Boil Size: **28.3 liters** Post Boil Size: **25 liters** Pre Boil Gravity: **1.039** (recipe based estimate)

Post Boil Gravity: **1.044** (recipe based estimate) Efficiency: **75%** (brew house) Source: **LoB Kits**

Calories: **200 calories** (Per 500ml) Carbs: **14.7 g** (Per 500ml)

Original Gravity:	Final Gravity:	ABV (standard):	IBU (tinseth):	SRM (morey):	Mash pH	Cost $
1.044	**1.005**	**5.0%**	**39.2**	**3.4**	**5.2**	**n/a**

Fermentables

Amount	Fermentable	Cost	PPG	°L	Bill %
4 kg	Gladfield - NZ - Gladfield - Pilsner Malt		35.65	1.9	86%
0.25 kg	Gladfield - NZ - Gladfield - Vienna Malt		35.42	3.4	5.4%
0.25 kg	Gladfield - NZ - Gladfield - Chit Malt		15	1.52	5.4%
0.15 kg	Gladfield - NZ - Gladfield - Sour Grapes Malt		34	2.03	3.2%

4.65 kg / $ 0.00

Hops

Amount	Variety	Cost	Type	AA	Use	Time	IBU	Bill %
50 g	Hallertau Mittelfruh		Pellet	3.75	Boil	60 min	22.93	50%
25 g	Styrian Goldings		Pellet	5.5	Boil	20 min	10.18	25%
25 g	Styrian Goldings		Pellet	5.5	Boil	10 min	6.1	25%

100 g / $ 0.00

Other Ingredients

Amount	Name	Cost	Type	Use	Time
3 g	Calcium Chloride (dihydrate)		Water Agt	Mash	1 hr.
6 g	Gypsum		Water Agt	Mash	1 hr.

Yeast

Fermentis - Safbrew - Abbaye Yeast BE-256

Amount: 2 Each **Cost:** **Attenuation (custom):** 85% **Flocculation:** High

Optimum Temp: 12 - 25 °C **Starter:** No

Fermentation Temp: - **Pitch Rate:** 0.5 *(M cells / ml / ° P)* 126 B cells required

Priming

CO_2 Level: 2.2 Volumes

Target Water Profile Light colored and hoppy

Ca^{+2} 80.7 **Mg^{+2}** 3 **Na^{+}** 10 **Cl^{-}** 54.2 **SO_4^{-2}** 109.4 **HCO_3^{-}** 0.1

Mash Guidelines

Amount	Description	Type	Start Temp	Target Temp	Time
11.9 L		Strike	65 °C	65 °C	60 min
20.8 L		Sparge	--	78 °C	--

Starting Mash Thickness: 2.7 L/kg
Starting Grain Temp: 18 °C

Quick Water Requirements

Water	Liters
Strike water volume at mash thickness of 2.7 L/kg	12.6
Mash volume with grains	15.6

Water	Liters
Grain absorption losses	-4.7
Remaining sparge water volume	20.4
Pre boil volume	28.3
Boil off losses	-2.5
Hops absorption losses (first wort, boil, aroma)	-0.8
Post boil Volume	25
Kettle losses	-2
Going into fermentor	23
Total:	**33**
Equipment Profile Used:	G30

Notes

The suggested mineral additions assume an average NZ water profile and should be fine for most NZ water sources. The target (balanced) water profile in ppm is shown above.

1.This recipe is designed to include mineral additions in the mash. If you do not have scales, 1 flat tsp/4g each of gypsum and calcium chloride will be a close approximation. The mineral additions are designed to target an optimal mash pH of 5.2 without the need for larger amounts of acidulated malt. Calcium is also essential for stabilising mash enzymes and for yeast health. The mineral additions are also very important for the flavour profile of the beer. If you do not have brewing salts in your home brewery, they are available for purchase on the LoB website and will last a great many brews for a small cost.

1. If you wish (particularly if your system requires excessive sparging, below SG 1.012), add sufficient lactic acid to the sparge water to lower the pH to 5.6 prior to heating (~ 0.5 - 1.0 ml/10l lactic acid depending on water source).
2. We recommend you add any kettle finings (whirlflock, Irish Moss) and yeast nutrient 15 min before the end of boil.
3. Cool the wort to 18C and promptly transfer to a fermenter.
4. We strongly recommend that the yeast be rehydrated in sterile warm water per the manufacturer's instructions. If not, you may lose up to 50% cell viability. Pitch into well aerated wort at 20C and allow to rise to 24C.
5. When the primary ferment is complete, hold the fermentation temperature at 22-24 deg C for 10-14 days. Three weeks from start to finish is a good rule of thumb. There should be no need to crash cool your beer. Time is your friend.
6. When ready, rack the beer to a CO2 purged keg and force carbonate to around 2.7 vols CO2. Alternatively, bottle or keg conditioning with priming sugar is a very nice option for a Belgian Single. Do not cold crash if you choose this option and do not rush the beer. A stable finishing gravity is a must (one week for clean beers is a good safety margin) and use a priming calculator to target around 2.7 vols CO2.