# Rauchbier

# Classic Rauchbier (22 A)

Type: All Grain
Batch Size: 5.00 gal
Boil Size: 7.53 gal
Boil Time: 60 min
End of Boil Vol: 5.73 gal
Final Bottling Vol: 4.75 gal
Fermentation: Lager, Two Stage

Brewer: Asst Brewer:

Date: 13 Jan 2019

Equipment: Stainless Kegs (10

Gal/37.8 L) - All Grain *Efficiency:* 75.00 %

Est Mash Efficiency: 82.5 %

Taste Rating: 30.0



### Taste Notes:

## Ingredients

| Amt          | Name                                      | Туре  | # | %/IBU     | Volume   |
|--------------|---|-------|---|-----------|----------|
| 5 lbs 0.4 oz | Munich Malt (9.0 SRM)                     | Grain | 1 | 49.5 %    | 0.39 gal |
| 5 lbs 0.4 oz | Smoked Malt (9.0 SRM)                     | Grain | 2 | 49.5 %    | 0.39 gal |
| 1.6 oz       | Carafa II (412.0 SRM)                     | Grain | 3 | 1.0 %     | 0.01 gal |
| 2.15 oz      | Tettnang [3.70 %] - Boil 60.0 min         | Нор   | 4 | 29.7 IBUs | -        |
| 0.30 oz      | Tettnang [3.70 %] - Boil 2.0 min          | Нор   | 5 | 0.3 IBUs  | -        |
| 1.0 pkg      | WLP925 - High Pressure Lager Yeast (White | Yeast | 6 | -         | -        |

## Gravity, Alcohol Content and Color

Est Original Gravity: 1.056 SG Est Final Gravity: 1.013 SG Estimated Alcohol by Vol: 5.7 %

Bitterness: 30.0 IBUs Est Color: 13.2 SRM Measured Original Gravity: 1.056

SG

Measured Final Gravity: 1.010 SG Actual Alcohol by Vol: 6.1 % Calories: 185.8 kcal/12oz

#### Mash Profile

*Mash Name:* Temperature Mash, 2

Step, Medium Body
Sparge Water: 4.30 gal
Sparge Temperature: 168.0 F

Adjust Temp for Equipment: FALSE

Est Mash PH: 5.47

Measured Mash PH: 5.20

Total Grain Weight: 10 lbs 2.5 oz Grain Temperature: 72.0 F Tun Temperature: 72.0 F Target Mash PH: 5.20 Mash Acid Addition: None Sparge Acid Addition: None

## Mash Steps

|                  | ·  |                     |           |
|------------------|--|---------------------|-----------|
| Name             | Description                                      | Step<br>Temperature | Step Time |
| Protein Rest     | Add 17.78 qt of water at 127.2 F                 | 122.0 F             | 30 min    |
| Saccharification | Add 0.00 qt of water and heat to 154.0 F over 15 | 154.0 F             | 45 min    |
| Mash Out         | Heat to 168.0 F over 10 min                      | 168.0 F             | 10 min    |

Sparge: Fly sparge with 4.30 gal water at 168.0 F

**Mash Notes:** Two step profile with a protein rest for mashes with unmodified grains or adjuncts. Temperature mash for use when mashing in a brew pot over a heat source such as the stove. Use heat to maintain desired temperature during the mash.

Carbonation and Storage

Carbonation Type: Keg Pressure/Weight: 12.54 PSI

**Keg/Bottling Temperature:** 45.0 F **Fermentation:** Lager. Two Stage

Fermenter:

Storage Temperature: 60.0 F

Volumes of CO2: 2.3

Carbonation Est: Keg with 12.54

PSI

Carbonation (from Meas Vol): Keg

with 12.54 PSI

**Age for:** 30.00 days

Notes

1/22

I've been wondering about fining this bad boy, and brulosophy says that gelatin works wildly well, so I'll be trying that; that is, racking to a keg with solution in place, prior to racking. The procedure is: 1/2 tsp gelatin, 1/4 cup water, microwave in 7s bursts til 145-150, add. Probably wouldn't hurt to shake the keg a bit upon final transfer

Also, as this beer has seen a rocky road, I plan to use new yeast, double-starter, which I've already purchased. Could even do like 1.4L for second pass

1/30

Transferred today, and despite the complication, the theory held entirely - transferring was easy and simple. Clean, and fast. And a note: if finings not required, you can bleed the PSI and then use the spunding valve to hit a target pressure

As for the beer, hoochie mama! Very solid. It's hard to be certain, but the beer seems relatively unimpeachable. Hell, I may compete with it. The smoke is there, but not wild, and the hops are there I suppose, but very much a background note. I'm fairly ecstatic - I think I may just make all of my lagers with this yeast, and reserve proper lagering for a recipe that passes muster

Also, probably about 4.5% ABV? Something like that

2/6

From notes the day of:

- Whisper of astringency could easily be the malts
- Classic Munich round sweetness, not quite cloying, but unavoidable
- Very well balanced
- Pretty shockingly clean
- Gelatin didn't do much; obviously, most stuck to mug technique needs sharpening
- Carbonation quite good, as this is the top of the valve range, can't do much more about that other than chill it like hell

#### 6/20/20

Posthumous notes from a review I wrote of the yeast:

"Honestly, I'm pretty staggered by this yeast. I gave it a fair head start with two starters, yeast nutrient in the boil, and I oxygenated inline to spec, but man did I put this yeast through the wringer. The primary temp swung from probably 60-68F over the course of a week, and due to issues with my spunding valve (read: a leak), and a tank that ran out, the pressure ranged from some 30 PSI down to 15, slowly down to 5, and then back up to 15 over two days or so (though mostly after primary fermentation); and after less than two weeks, the resulting Rauchbier was very clean. Ester suppression, my friends. By homebrewing standards, near spotless, and by professional standards, believably lager-y (for reference, I work and sometimes brew at a small but up-and-coming brewery, so I'm no pro but I'm not a neophyte either).

TL;DR this yeast really does ferment in 7, lager in 3. Also, you can easily let the yeast build pressure from zero using a spunding valve, especially if you give it a healthy dose of O2 and it's reasonably fresh and active"

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