

sudo apt-get install beer - 8.7%

Sahti

Author: The Thirsty Otter

Type: All Grain

IBU : 7 (Tinseth)  
BU/GU : 0.08  
Colour : 14 EBC  
Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.062  
Original Gravity : 1.081  
Total Gravity : 1.084  
Final Gravity : 1.018

Fermentables (2 kg)

1.5 kg - Pale Ale Malt 8.5 EBC (75%)  
^ Lot # 20210909  
^ Brouwmaatje (NL) 051.011.5  
500 g - Pils 3.5 EBC (25%)  
^ Lot # 20210710  
^ Brouwmaatje (NL) 051.002.4  
37 g - Bottling - Sugar, Table (Sucrose) 2 EBC  
^ Albert Heijn (NL)

Hops (5 g)

60 min - 5 g - Saaz - 3.6% (7 IBU)  
^ Lot # T9020044SAA  
^ Brouwmaatje (NL) BM-HUM.420000 Humlegarden...

Miscellaneous

Mash - 0.65 g - Baking Soda (NaHCO3)  
^ Lot # 41190621/3  
^ Brouwstore (NL) 003.106.2  
Mash - 1.74 g - Calcium Chloride (CaCl2) 33 %...  
^ Lot # 115038  
^ Brouwstore (NL) 055.035.0  
Mash - 0.65 g - Canning Salt (NaCl)  
^ Albert Heijn (NL)  
Mash - 0.79 g - Epsom Salt (MgSO4)  
^ Lot # /2119000091  
^ Brouwstore (NL) 055.027.7  
Mash - 1.56 g - Gypsum (CaSO4)  
^ The Malt Miller (UK) CHE-03-004  
Mash - 1.3 ml - Lactic Acid 80% 80%  
^ Lot # 20200213  
^ Brouwstore (NL) 003.002.3  
Sparge - 0.41 g - Baking Soda (NaHCO3)  
^ Lot # 41190621/3  
^ Brouwstore (NL) 003.106.2  
Sparge - 1.1 g - Calcium Chloride (CaCl2) 33...  
^ Lot # 115038  
^ Brouwstore (NL) 055.035.0  
Sparge - 0.41 g - Canning Salt (NaCl)  
^ Albert Heijn (NL)  
Sparge - 0.5 g - Epsom Salt (MgSO4)  
^ Lot # /2119000091  
^ Brouwstore (NL) 055.027.7  
Sparge - 0.99 g - Gypsum (CaSO4)  
^ The Malt Miller (UK) CHE-03-004

Yeast

0.8 pkg - Lallemend (LalBrew) Voss Kveik  
^ The Malt Miller (UK) YEA-02-048

01 Brouwpunt 5L (60min) (rev 4)

Batch Size : 5.6 L  
Boil Size : 7.76 L  
Post-Boil Vol : 5.96 L  
  
Mash Water : 6 L  
Sparge Water : 3.8 L  
Boil Time : 60 min  
Total Water : 9.8 L



14 EBC

Brewhouse Efficiency: 71.8%  
Mash Efficiency: 73.3%

Mash Profile

Sahti Mash (150 min)  
65.3 °C - Strike Temp  
60 °C - 70 min - Temperature  
70 °C - 70 min - Temperature  
80 °C - 10 min - Mash out

Fermentation Profile

01 Ale + DR + Conditioning  
30 °C - 4 days - Primary  
25 °C - 6 days - Primary  
15 °C - 14 days - Carbonation  
15 °C - 28 days - Conditioning

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
Ca 100 Mg 15 Na 75 Cl 132 SO 200 HCO 94

SO/Cl ratio: 1.5  
Mash pH: 5.39  
Sparge pH: 6

Measurements

Mash pH:  
  
Boil Volume:  
  
Pre-Boil Gravity:  
  
Post-Boil Kettle Volume:  
  
Original Gravity:  
  
Fermenter Top-Up:  
  
Fermenter Volume:  
  
Final Gravity:  
  
Bottling Volume:

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## Recipe Notes

Traditional brewers usually mash for 5-9 hours by raising the temperature slowly from hand-warm to hot. This method reflects the past of wooden mash tuns, lack of thermometers, and less ideal homemade malts. I have simplified the procedure to three steps (60-70-80°C) and to about two and half hours. This method seems to take most out of today's commercial malts, but if you want to mash in the most traditional way include steps at 40°C and 50°C and mash for at least five hours.

This sahti recipe makes a raw ale, that is, neither wort nor mash is boiled. I know from a personal experience that brewers who have read their brewing books would like to add a short boil for sanitation, but that really isn't necessary. I have fermented raw ales several times with brewer's yeast and not a single time the ale has gone sour.

Farmhouse ales were once fermented at hand-warm temperatures, but then the house strains were adapted to such temperatures. For baker's yeast I recommend the range 18-25°C which is fairly typical among Finnish brewers. The lower end gives maltier sahti while the higher end emphasize fruity and spicy flavors.

Sahti should be moved promptly to cold when fermentation begins to calm down. Most brewers do this before fermentation is completely finished, and slow secondary fermentation may continue in the cold up till serving. This method protects effectively from souring and staling, but it takes some practice to master. With rustic baker's yeast sahti may also taste better when still sweet and slightly unfermented. Thus the finishing gravities of homebrewed sahtis are often fairly high, as in the sahti recipe below.

You may also ferment to finish, but still transfer the ale to cold without a delay. As soon as yeast drops out, lactic bacteria may have its chance.

Sahti is not carbonated intentionally, but it may have some fizz from the secondary fermentation.