

Bjørne IPA

Amerikansk IPA (6 B)

Batch Size: 25,00 l
Boil Size: 33,50 l
Boil Time: 90 min
End of Boil Vol: 26,00 l
Final Bottling Vol: 23,50 l

Date: 20 Mar 2016
Brewer: Morten Sevland
Equipment: Electric BIAB (25L) Sparge
Efficiency: 70,00 %
Fermentation: Ale, Single Stage



Prepare for Brewing

- Prepare Yeast / Yeast Starter
- Clean and Prepare Brewing Equipment
- Check ingredients list
- Heat Mash Water: 26,00 l
- Heat Sparge Water: 14,91 l to 78,0 C
- Total Water Needed: 40,91 l

Water Prep

Amt	Name	Type	#	%/IBU
8,00 g	Calcium Sulfate - Gypsum - CaSo4 (Mash 60,0 mins)	Water Agent	1	-

Mash Ingredients

Amt	Name	Type	#	%/IBU
4,00 kg	Pilsner (W) (3,3 EBC)	Grain	2	54,1 %
2,50 kg	Pale Malt (W) (5,0 EBC)	Grain	3	33,8 %
0,25 kg	Amber Malt (TFS) (125,0 EBC)	Grain	4	3,4 %
0,25 kg	Crystal Malt (TFS) (120,0 EBC)	Grain	5	3,4 %
0,20 kg	Munich II (W) (25,0 EBC)	Grain	6	2,7 %
0,20 kg	Pale Crystal Malt (TFS) (75,0 EBC)	Grain	7	2,7 %

Mash Steps

Name	Description	Step Temperature	Step Time
Mash Low	Add 26,00 l of water at 58,8 C	55,0 C	15 min
Saccharification	Heat to 66,0 C over 15 min	66,0 C	60 min
Mash High	Heat to 72,0 C over 15 min	72,0 C	15 min
Mash Out	Heat to 78,0 C over 15 min	78,0 C	15 min

- Fly sparge with 14,91 l water at 78,0 C
- Estimated pre-boil gravity is 1,048 SG _____ SG
- Add water to achieve pre-boil gravity _____ l (33,50 l)

Pre-Boil Preparations

- Calibrate Refractometer
- Disinfect the fermenter
- Disinfect the O2 diffuser stone
- Measure hops
- Prepare hop-bags
- Disinfect the chiller

Boil Ingredients

Amt	Name	Type	#	%/IBU
20,00 g	Mosaic (2014) [13,50 %] - Boil 60,0 min	Hop	8	27,7 IBUs
1,00 Items	Whirlfloc Tablet (Boil 15,0 mins)	Fining	9	-
25,00 g	Citra (2014) [13,50 %] - Boil 10,0 min	Hop	10	12,6 IBUs
20,00 g	Cascade (2014) [5,60 %] - Boil 10,0 min	Hop	11	4,2 IBUs
25,00 g	Citra (2014) [13,50 %] - Boil 2,0 min	Hop	12	2,9 IBUs
20,00 g	Cascade (2014) [5,60 %] - Boil 2,0 min	Hop	13	1,0 IBUs

- Measured 30 min Boil Vol: _____ l _____ cm
- Measured 60 min Boil Vol: _____ l _____ cm
- Measured 90 min Boil Vol: _____ l _____ cm
- Estimated Post Boil Vol: 26,00 l
- Measured 30 min Boil Gravity: _____ SG
- Measured 60 min Boil Gravity: _____ SG
- Measured 90 min Boil Gravity: _____ SG
- Estimated Post Boil Gravity: 1,065 SG

Cool and Transfer Wort

- Turn off HEAT !!
- Cool wort to fermentation temperature
- CLOSE Crane on fermenter !!
- Transfer wort to fermenter
- Add water if needed to achieve final volume of 25,00 l

Pitch Yeast and Measure Gravity and Volume

Fermentation Ingredients

Amt	Name	Type	#	%/IBU
2,0 pkg	Safale American (DCL/Fermentis #US-05) [50,28 ml]	Yeast	14	-
1,0 pkg	Norwegian VossaKveik (Voss #NCYC 3995) [124,21 ml]	Yeast	15	-

- Measure Actual Original Gravity _____ (1,065 SG)
- Measure Actual Batch Volume _____ (25,00 l)
- Added _____ l of water to achieve 25,00 l
- Final Pre-Ferment Batch Volume _____ l

Fermentation

Primary Ingredients

Amt	Name	Type	#	%/IBU
0,63 tsp	Yeast Nutrient / Servomyces (Primary 15,0 mins)	Other	16	-

20 Mar 2016 - 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
25,00 g	Amarillo (2014) [8,90 %] - Dry Hop 7,0 Days	Hop	17	0,0 IBUs
25,00 g	Cascade (2014) [5,60 %] - Dry Hop 7,0 Days	Hop	18	0,0 IBUs
25,00 g	Amarillo (2014) [8,90 %] - Dry Hop 4,0 Days	Hop	19	0,0 IBUs
25,00 g	Cascade (2014) [5,60 %] - Dry Hop 4,0 Days	Hop	20	0,0 IBUs

Estimate Final Gravity: 1,013 SG

Measure Final Gravity: _____

Date Bottled/Kegged: 03 Apr 2016

Carbonation: Keg with 86,48 KPA (bar= KPA/100)

Age beer for 30,00 days at 18,3 C

03 May 2016 - Drink and enjoy!

Notes

Tom for Crystal, spedde på med Amber 50/50

PH: 5,5

Delte batchen i 20 liter med US-05

og 10 liter med VossaKveik

All tørrhumle i 20 liter US-05 batchen

29.03.16 - humletilsetning 1

30.03.16 - SG 1.014 - US-05

30.03.16 - SG 1.016 - VossaKveik

14.02.16 - FG 1.010 - US-05

14.02.16 - FG 1.012 - VossaKveik