

Vijftien

Brewed on: 7/11/2008 **Brewer:** Dan Morey
Collect: 7.7 gallons US **Effic:** 93.1
Boil: 90 (min) **Atten:** 81.0
Finish: 5.7 gallons US **Cost:** \$22.52
Evap/hr: 1.35 gallons US **Calc Method:** Tinseth

	Low:	Recipe:	High:
IBU:	25	20.3	49
SRM:	7	16.3	20
ABV	7.0	9.00	12.0
OG:	1.065	1.084	1.098
FG:		1.016	

Comments:

15 ingredients: 4 malts, 4 sugars, blend of 3 yeasts, 2 hops, 1 spice and water. A Belgian specialty beer.

Yeast:

WLP575 Belgian Blend

A blend of Trappist type yeast (2) and one Belgian ale type yeast. This creates a versatile blend that can be used for Trappist type beer, or a myriad of beers that can be described as 'Belgian type'.

Attenuation: 74-80%

Flocculation: Medium

Malts / Fermentables:	Amount:	Points:	Lov:	%:	Mash?	Cost:
American Two-Row	3.00 lb	1.037	1.8	21.4	M	\$2.70
Belgian Candi Sugar Dark	0.50 lb	1.045	275.0	3.6		\$0.00
German Munich	3.00 lb	1.037	8.0	21.4	M	\$5.40
Grape Molasses	0.50 lb	1.038	1.0	3.6		\$0.10
Jaggery / Gur	0.50 lb	1.035	1.0	3.6		\$0.45
Rye Malt	3.00 lb	1.030	4.0	21.4	M	\$0.00
Turbinado Sugar	0.50 lb	1.044	2.0	3.6		\$0.00
Wheat Malt	3.00 lb	1.039	1.7	21.4	M	\$1.41
Total:	14.00 lb	1.084	16.3			\$10.06

Hops:	Amount:	Type:	Alpha:	Add:	Minutes:	IBU:	Cost:
Perle	1.00 oz	Leaf	8	Boil	70	20.0	\$0.75
Hallertauer	0.50 oz	Leaf	3.9	Boil	2	0.4	\$0.38
Total:	1.5 oz					20.3	\$1.13

Mash Schedule

Rest Temp:	End Temp	Method:	Time:	Directions:
70.0 F	70.0	infusion	20	Mash in with 5.9 quart US of water at 66.4 F
136.0 F	134.2	infusion	15	Add 7.2 quart US of water at 211.0 F
146.0 F	142.4	infusion	30	Add 2.8 quart US of water at 211.0 F
161.0 F	157.8	infusion	30	Add 6.8 quart US of water at 211.0 F
168.0 F	168.0	direct	25	Add direct heat until mash reaches 168.0 F.
170.0 F	170.0	fly sparge	60	Fly sparge with 14.9 quart US

Grain Temp: 79.3F 120 min. Water/Grain Ratio: 0.49 :1 qt/lb
Total Mash Vol: 27.7 quart

Miscellaneous Ingredients

Ingredient:	Amount:	Units:	\$/Unit:	Notes:
Wyeast yeast nutrient	0.50	tsp	0.22	Add during final 15 minutes of boil
Irish Moss	1.00	tsp	0.15	Add during final 15 minutes of boil
Coriander	0.50	oz	0.15	Add during final 5 minutes of boil

Carbonation:

Recipe is bottled; temperature of beer at bottling is 77.0 F. To carbonate to 2.8 volumes CO₂, prime with 160.5 gr dextrose.

Cost Analysis:

Malt: \$10.06 **Total cost:**

Bottles:

Bottle Size: 12 fl. ounces

Notes:

Date:	Type:	Notes:
7/12/2008	Planning	Oat malt was bad, so switched to Munich malt for a slightly darker beer. Dark sugar will not add as much color as predicted.
7/13/2008	Brewed	Brewed. OG 20 Brix (1.084). Light amber color. Perle hops were shattered and quite a bit passed through into fermenter. Grape molasses had a pleasant flavor. Should try a beer with the grape molasses as the sole sugar.
8/27/2008	Bottled	FG 1.014 @ 77F. Alcohol in the nose, grapefruit citrus esters analong with low cherry like fruity esters. A hint of molasses/jaggery. Copper color with orange hue. Complex malt flavor, pepper fusel in the finish. Overall, I'm very happy with the product at bottling.

Water Usage:

Total water:	37.6	collected:	7.7	Lost in kettle:	2
mash:	22.6	after boil:	5.7	Lost in trub:	0
sparge:	14.9	Final vol:	5.0		
	quart US		gallons US		quart US