

BREWSHEET v3.3 (2012-03-18)

user input
calculated

Brew			
Name:	Lambic Batch 1		
Brew Date:	2014 November 24	Collected (gal):	16.00
Rack Date:	2015 November 23	Racked (gal):	16.00
Keg/Bottle Date:	2016 August 6	Kegged/Bottled (gal):	16.00
Estimated		Actual	
ABV (%):		ABV (%):	6.2%
OG (SG):	1.050	OG (SG):	1.054
FG (SG):		FG (SG):	1.001
IBU:		IBU:	
SRM:	4.0	SRM:	
IBU/Gravity Ratio:		IBU/Gravity Ratio:	3.8

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	20.63	1.036	0.032	2.0	65.00%
Unmalted Raw White Wheat	11.11	1.037	0.018	2.0	35.00%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Debittered	P	10.00	240	0.0%	0.0	100.00%

Design Notes	
Cantillon uses 5g/L of hops (~0.67 oz/gal or ~3.68 oz/5.5 gal).	

Batch Variables and Calculations	
Batch Size (gal):	15.00
Grain Temperature (F):	70
Total Grain Weight (lbs):	31.74
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	113
Strike Water (gal):	14.42
Strike Temperature (F):	128
Mash Ratio (qt/lb):	1.62
Grain Absorption (gal):	3.97
Mash Volume (gal):	16.96
Mash-out Temperature (F):	170
Estimated First Runnings (gal):	10.31
First Runnings (gal):	
First Runnings Gravity (Brix):	
First Runnings Gravity (SG):	
Sparge	
Desired Sparge Temperature (F):	172
Sparge Water (gal):	9.84
Sparge Water Temperature (F):	178
Estimated Second Runnings (gal):	10.31
Second Runnings (gal):	
Second Runnings Gravity (Brix):	
Second Runnings Gravity (SG):	
Estimated Preboil Volume (gal):	20.63
Estimated Preboil Gravity (Brix):	
Preboil Volume (gal):	
Preboil Gravity (Brix):	10.60
Preboil Gravity (SG):	1.041
Extraction Efficiency (%):	
Boil	
Boil Time (min):	200
Estimated Evaporation Loss (gal):	4.17
Hop Absorption (gal):	0.25
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	
Actual Evaporation Loss (gal):	
Original Gravity (Brix):	14.00
Batch Size Efficiency (%):	71%
Actual Efficiency (%):	75%
Fermentation	
Primary Fermentation (days):	7
Primary Fermentation Temperature (F):	72
Gravity After Primary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Secondary Fermentation (days):	90
Secondary Fermentation Temperature (F):	72
Gravity After Secondary Fermentation (SG):	
Temperature of Reading (F):	
Corrected SG:	
Tertiary Fermentation (days):	270
Tertiary Fermentation Temperature (F):	72
Final Gravity (SG):	1.000
Temperature of Reading (F):	78
Corrected SG:	1.001
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	158
12 oz. Bottles Required:	163
Carbonation	
Bottling Temperature (F):	3.55
Volumes of CO2:	
Priming Sugar (oz):	
DME (oz):	
Forced Carbonation (lbs):	

System Variables	
Brewhouse Efficiency (%):	65%
Volume in Hoses (gal):	0.22
Volume in Wort Chiller (gal):	0.19
Volume in HERMS Coil (gal):	0.25
Mash/Lauter Tun Deadspace (gal):	0.14
Strike to Sparge Volume Ratio (%):	50%
Trub Loss (gal):	0.16
FWH IBU Factor (%):	10%
Strike Temperature Factor (F):	10
Sparge Temperature Factor (F):	5
Estimated Evaporation Rate (gal/hr):	1.25
Leaf Hop Absorption Ratio (qt/oz):	0.40
Pellet Hop Absorption Ratio (qt/oz):	0.10
Cooling Losses (%):	4%
Hydrometer Correction (SG):	-0.001

BJCP Style Guidelines	
Style:	Fruit Lambic
Code:	17F
OG:	1.040-1.060
FG:	1.000-1.010
IBU:	2.0-10.0
SRM:	3.0-7.0
ABV:	5.0-7.0%
CO2:	2.6-4.5

Yeast Strain	
Yeast Strain:	White Labs WLP655 (Belgian Sour Mix)
Type:	Belgian Sour Mix
Attenuation (%):	
Actual Attenuation (%):	98%
Fermentation Temp (F):	
Flocculation:	

Required Amounts	
Cell Count (billions):	1.050
Wals (White Labs/Wyeast):	
Dry Yeast (g):	52.6
Yeast Starter/Slurry	
Vials (White Labs/Wyeast):	1
Date Yeast Produced:	
Yeast Viability (%):	
Yeast Growth Rate:	
Yeast Inoculation Rate (million/ml):	
Starter Volume Required (ml):	
DME Required (oz):	
Yeast slurry concentration (billion/ml):	2.5
Non-yeast Percentage (%):	20%
Yeast Slurry Required (ml):	

User Variables	

Batch Scaling			
Desired OG:		Total Weight (lbs):	
Batch Size (gal):		Total Bill:	
Brewhouse Efficiency (%):			
Grain	Pounds	Potential	% Bill

Poundage		
Goal (lbs):	11.11	
Amount (lbs oz f. oz):	3	1.52
Amount (lbs oz f. oz):	2	3.94
Amount (lbs oz f. oz):	3	8.97
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Amount (lbs oz f. oz):		
Needed (lbs oz f. oz):	2	3.33

Hydrometer Correction	
SG:	1.002
Temperature (F):	67
Corrected SG:	1.002

Gravity Calculator	
Brix:	14.00
Specific Gravity:	1.054
Degrees Plato:	13.34

Brix Ethanol Correction	
Original Brix	
Current Brix	
SG:	

Brewing Notes	
At dough-in: Temp ended up at 100F; added extra 0.5 gal to get it to 103F.	12/1: pellicle on top (Brett?); sach, probably dead; ordered some Belgian Sour Mix to pitch.
Added 3 gal at 210F to increase temp to 131F (should be 136F).	12/3: pitched the Belgian Sour Mix. Pellicle is much more "bubbly" and some krausen has formed?
Collected 2.14 gal.	
Addition raised temp to 146F (should be 150F).	11/23/15: racked on top of raspberries (10 gal) and cherries (5 gal).
Raised temp to 135F (should be 162F)? Started recirculating to raise temp. Added 10 min to rest.	3/19/16: sampled; raspberry batch 1 is nice raspberries, fruity, and quite sour (ready to bottle?).
Collected 5.3 gal (after stopping recirculation, mixing, and waiting a few minutes).	Raspberry batch 2 has more Brett character with less raspberry; more complex, equally sour.
Took 20 min to try to use Ryan's pump to get turbid mash in MLT. Temp raised to 130F?	Cherry is smoother with less fruit and a tad less sourness; more oak.
Recirculated to 167F.	Sample again in a month or two and decide whether or not to bottle.
Collected 5 gal instead of 6.35 gal.	
Sparged (added 2 gal turbid mash to make up volume).	7/31/16: made yeast (boiled 100mL water, cooled, added yeast, waited, stirred, cooled).
But collected 16.5 gal total! Added 5 gal water since preboil gravity was 13.6 and 14.1 (higher than anticipated). After adding water, preboil gravity was 11.2 and 10.	Also made 5.2oz in ~1cup priming sugar mixture.
Changed boil time from 4 hrs to 3 hrs so as not to kill myself!	Did this for all three batches (at the same time).
Preboil brix was 13.6 and 14.1 (added water to make up volume).	Boil mason jars, lids, rings, tongs, and scoop for 15min.
After adding water: 11.2 and 10.	Simultaneously make priming sugar mixture.
1.5 hrs to go: 12.6 average.	Remove three jars and spill priming sugar mixture; seal, let cool.
Added 2 gal at 1.5 hrs to go.	Remove three jars, leaving ~100mL water in each, seal, let cool; when cool, add yeast.
Cut boil time short by ~40 min; 13.28 brix average (1.052 SG).	Priming sugar mixture calculated for 3.0 volumes CO2 (assuming 80F max temp and 4.25gal).
	8/6/16: bottled this batch (R2); 36 bottles; aroma is raspberries, funk, tart, woody; flavor is quite acidic and sour, dry, beautiful wood and raspberries, funk; quite sour but not overwhelming to me; FG was 1.000 SG @78F = 1.001 FG (7% ABV); but it came from a mixed barrel, so...
	...ABV most likely closer to 6.2%.