BREWSHEET v3.3 (2012-03-18)

user input
calculated

Brew			
Name:	Lambic Batch 1 (Ryan)		
Brew Date:	2013 November 26	Collected (gal):	18.00
Rack Date:		Racked (gal):	
Keg/Bottle Date:	2014 November 24	Kegged/Bottled (gal):	18.00
Estimated		**Actual**	
ABV (%):		ABV (%):	6.6%
OG (SG):	1.050	OG (SG):	1.052
FG (SG):		FG (SG):	1.002
IBU:	6.3	IBU:	6.9
SRM:	4.0	SRM:	4.3
IBU/Gravity Ratio:	0.13	IBU/Gravity Ratio:	0.13

Grain	Pounds	Potential	SG Share	Color	% Bill
Pale Malt (2-Row) US	27.51	1.036	0.032	2.0	65.00%
Unmalted Raw White Wheat	14.81	1.037	0.018	2.0	35.00%

Hop	Type	Ounces	Boil Time	Alpha %	IBU	% Bill
Tettnanger (US)	P	13.30	240	0.5%	6.3	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):	20.00
Grain Temperature (F):	56
Total Grain Weight (lbs):	42.32
Mash	
Mash Time (min):	60
Desired Mash Temperature (F):	113
Strike Water (gal):	18.21
Strike Temperature (F):	130
Mash Ratio (qts/lb):	1.72
Grain Absorption (gal):	5.29
Mash Volume (gal):	21.59
Mash-out Temperature (F):	170
Estimated First Runnings (gal):	12.78
First Runnings (gal):	13.50
First Runnings Gravity (Brix):	
First Runnings Gravity (SG):	
Sparge	
Desired Sparge Temperature (F):	172
Sparge Water (gal):	12.30
Sparge Water Temperature (F):	178
Estimated Second Runnings (gal):	12.77
Second Runnings (gal):	11.50
Second Runnings Gravity (Brix):	
Second Runnings Gravity (SG):	
Estimated Preboil Volume (gal):	25.55
Estimated Preboil Gravity (Brix):	
Preboil Volume (gal):	25.00
Preboil Gravity (Brix):	11.25
Preboil Gravity (SG):	1.044
Extraction Efficiency (%):	71%
Boil	
Boil Time (min):	240
Estimated Evaporation Loss (gal):	3.80
Hop Absorption (gal):	0.33
Volume Left in Kettle (gal):	0.00
Actual Evaporation Rate (gal/hr):	1.33
Actual Evaporation Loss (gal):	5.33
Original Gravity (Brix):	13.40
Batch Size Efficiency (%):	68%
Actual Efficiency (%):	61%
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):	1.002
Temperature of Reading (F):	67
Corrected SG:	1.002
Target Fermentation for Diacetyl Rest (%):	
Target Gravity for Diacetyl Rest (SG):	
Calories per Pint:	166
12 oz. Bottles Required:	183
Carbonation	
Bottling Temperature (F):	
Volumes of CO2:	3.55
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):	0.95
Leaf Hop Absorption Ratio (qts/oz):	0.20
Pellet Hop Absorption Ratio (qts/ 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 (%):	96%
Fermentation Temp (F):	
Flocculation:	

Required Amounts	
Cell Count (billions):	1,400
Vials (White Labs/Wyeast):	
Dry Yeast (g):	70.1
Yeast Starter/Slurry	
Vials (White Labs/Wyeast):	1
Date Yeast Produced:	
Yeast Viability (%):	
Yeast Growth Rate:	
Yeast Innoculation 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:	1.050	Total Weight (lbs):	42.32	
Batch Size (gal):	20.00	Total Bill:	100.00%	
Brewhouse Efficiency (%):	65%			
Grain	**Pounds**	**Potential**	**Color**	**% Bill**
Northwestern Pale Ale malt	27.51	1.036	2.8	65.00%
Unmalted Raw Red Wheat	14.81	1.037	2.0	35.00%

Poundage		
Goal (lbs):	14.81	
Amount (lbs | oz.f_oz):	2	1.16
Amount (lbs | oz.f_oz):	2	13.33
Amount (lbs | oz.f_oz):	3	3.36
Amount (lbs | oz.f_oz):	3	7.45
Amount (lbs | oz.f_oz):	2	15.80
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):	0	3.86

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

Gravity Calculator			
Brix:			
Specific Gravity:			
Degrees Plato:			

Brix Ethanol Correction	
Original Brix:	
Current Brix:	
SG:	

Brewing Notes

First rest about 5 mins longer than specified.
Collected 2.75 gal of turbid mash the first time.
Nexit infusion brought temps to 169F instead of 150F!
Added cold water to get it down to 157F.
Collected 5.5 gal of turbid mash the second time.
Next infusion brought temps to 169F.
Collected 7.1 gal to the boil kettle.
Added remaining turbid mash to the mash tun; temp at 169F.
Collected 6.4 gal to the boil kettle (13.5 total).
Sparged with 12.25 gal.
Collected sparge in separate kettle; split boil kettle contents (half to cleaned mash tun as secondary boil kettle).
Total collected volume is ~25 gal.
Preboil gravity is 11.3 for boil kettle and 11.2 for secondary boil kettle.

11/27: barrel fermenting away quite nicely (a lot of airlock activity).
7/4: sampled the barrel; souring nicely although perhaps a bit more bitter than projected.
Was more bitter when sampled about 4 months before though...
Needs more souring; check again near Thanksgiving (~1 year).

11/24: 1.002 SG; racked on top of raspberries and blackberries.
1/19: sampled.
Blackberry: aroma is tart and fruity and quite pleasant; flavor is beautiful; berry with sour notes.
Needs to sit for a good few months more.
Raspberry (center) is wonderful but a bit light in raspberry flavor; aroma is sharp and fruity.
Sourness is perfect.
Raspberry (left) is the best so far; nice and fruity, sour, with a stellar finish of oak and fruit.