## BREWSHEET v3.3 (2012-03-18)

## user input calculated

Brew							Batch Variables and Calculations		System Variables		BJCP Style Guidelines			Batch Scaling				
Name:	Voodoo Pumpkin Ale						Batch Size (gal): 11.00		Brewhouse Efficiency (%): 70%		Style: Specialty Beer			Desired OG:		Total Weight (lbs):		
Brew Date:	2012 September 2 Collected (gal):			11.00		Grain Temperature (F):	82	Volume in Hoses (gal):	0.22	Code:	23A		Batch Size (gal):		Total Bill:		1 1	
Rack Date:		Racked (gal):					Total Grain Weight (lbs):	25.50	Volume in Wort Chiller (gal):	0.19	OG:			Brewhouse Efficiency (%):				
Keg/Bottle Date:	2012 September 22 Kegged/Bottled (gal):				10.00	Mash		Volume in HERMS Coil (gal):	0.25	FG:			Grain	Pounds	Potential	Color	% Bill	
Estimated	ted Acti				al		Mash Time (min): 60		Mash/Lauter Tun Deadspace (gal):	0.14	IBU:							
ABV (%):	5.1% ABV (%):				4.6%	Desired Mash Temperature (F):	154	Strike to Sparge Volume Ratio (%):	50%	SRM:							1	
OG (SG):		1.056	OG (SG):			1.055	Strike Water (gal):	11.48	Trub Loss (gal):	0.16	ABV:							1
FG (SG):	1.017 FG (SG):					1.020	Strike Temperature (F):	170	FWH IBU Factor (%):	10%	CO2:	2.2-2.5						1
IBU:	25.7 IBU:			25.8		Mash Ratio (qts/lb):	1.68	Strike Temperature Factor (F):	7	c.		,					1	
SRM: 12.3 SRM:				12.3	Grain Absorption (gal):		Sparge Temperature Factor (F):	4		Yeast Strain						1		
IBU/Gravity Ratio:	0.46 IBU/Gravity Ratio:				0.47	Mash Volume (gal):	12.77	Estimated Evaporation Rate (gal/hr):	1.34	Yeast Strain:	Danstar Windson	(Dry Ale)					1	
							Mash-out Temperature (F):	168	Leaf Hop Absorption Ratio (qts/oz):	0.20	Type:	Dry Ale						1
Grain	Pounds Potential SG Share				Color % Bill		Estimated First Runnings (gal):	8.15	Pellet Hop Absorption Ratio (qts/ oz):	0.10	Attenuation (%):	67-72%						
Northwestern Pale Ale malt		16.50	1.036	0.038	2.8	64.71%	First Runnings (gal):	8.75	Cooling Losses (%):	4%	Actual Attenuation (%):	64%						1
Caramel/Crystal 60L		0.70	1.034	0.002	60.0	2.75%	First Runnings Gravity (Brix):	16.20	Hydrometer Correction (SG):	-0.001	Fermentation Temp (F):	64-70F						
Caramel/Crystal 75L		0.80	1.034	0.002	75.0	3.14%	First Runnings Gravity (SG):	1.063			Flocculation:	medium		Poundage			1	
Munich Malt 10L		2.00	1.035	0.004	10.0	7.84%	Sparge				R	Required Amount	s	Goal (lbs):	16.50			
Vienna Malt		2.00	1.036	0.005	3.5	7.84%	Desired Sparge Temperature (F):	170			Cell Count (billions):		427	Amount (lbs   oz.f_oz):	1	0.86	1	
Belgian aromatic malt		1.50	1.036	0.003	26.0	5.88%	Sparge Water (gal):	7.68			Vials (White Labs/Wyeast)	:):		Amount (lbs   oz.f_oz):	2	12.16	i	
Victory Malt		1.00	1.034	0.002	25.0	3.92%	Sparge Water Temperature (F):	175			Dry Yeast (g):		21.4	Amount (lbs   oz.f_oz):	2	13.54	-	
Pumpkin, canned		0.00	1.018	0.000	5.0	0.00%	Estimated Second Runnings (gal):	8.15			Y	east Starter/Sluri	ry	Amount (lbs   oz.f_oz):	2	12.76		
Rice hulls		1.00	1.000	0.000	0.0	3.92%	Second Runnings (gal):	7.98			Vials (White Labs/Wyeast)	:):		Amount (lbs   oz.f_oz):	2	12.55	i	
							Second Runnings Gravity (Brix):	6.58			Date Yeast Produced:			Amount (lbs   oz.f_oz):	2	14.46	i	
							Second Runnings Gravity (SG):	1.026			Yeast Viability (%):			Amount (lbs   oz.f_oz):	1	5.67	'	
Нор	Type	Ounces	Boil Time	Alpha %	IBU	% Bill	Estimated Preboil Volume (gal):	14.80			Yeast Growth Rate:			Amount (lbs   oz.f_oz):				
Chinook	P	1.00	75	11.0%	17.2	33.33%	Estimated Preboil Gravity (Brix):	11.61			Yeast Innoculation Rate (n	million/ml):		Amount (lbs   oz.f_oz):				
Willamette	P	1.00	45	4.8%	6.6	33.33%	Preboil Volume (gal):	16.73			Starter Volume Required (	(ml);		Amount (lbs   oz.f_oz):				
Cascade	P	1.00	5	6.4%	1.9	33.33%	Preboil Gravity (Brix):	11.90			DME Required (oz):			Amount (lbs   oz.f_oz):				
							Preboil Gravity (SG):	1.046			Yeast slurry concentration	(billion/ml):	2.5	Amount (lbs   oz.f_oz):				
							Extraction Efficiency (%):	88%			Non-yeast Percentage (%)	):	20%	Needed (lbs   oz.f_oz):	0	0.00		
							Boil				Yeast Slurry Required (ml)	):					-	
							Boil Time (min):	75					Hydrometer Correct	on				
							Estimated Evaporation Loss (gal):	1.68			User Variables		SG:	1.02				
							Hop Absorption (gal):	1.08					Temperature (F):	6	5			
							Volume Left in Kettle (gal):	0.00					Corrected SG:	1.020				
							Actual Evaporation Rate (gal/hr):	2.89										_
							Actual Evaporation Loss (gal):	3.61						Gravity Calculator				
							Original Gravity (Brix):	14.23						Brix:	13.9	14.23	6	
							Batch Size Efficiency (%):	69%						Specific Gravity:	1.054	1.055	i	
							Actual Efficiency (%):	69%						Degrees Plato:	13.3	13.55		
							Fermentation											
							Primary Fermentation (days):	14						Brix Ethanol Correction				
							Primary Fermentation Temperature (F):	66						Original Brix:				
							Gravity After Primary Fermentation (SG):							Current Brix:				
							Temperature of Reading (F):							SG:		J		
						Corrected SG:	-											
							Secondary Fermentation (days):	/		100			Brewing Notes					
							Secondary Fermentation Temperature (F).	32	9/2: added 15 min to boll (backed up 60 a	and 30 mir	nops/spices).							
							Gravity Arter Secondary Fermentation (SG).		Added reduced 1st runnings at 1-10 min	l. In al								
							Corrected SC:		~1.5 gai leitover 2nd runnings never add	ieu.	>							
		Decign Note					Tertian (Eermentation (days):		Aroma of aloung, malt alight along man	nd putmo	v flavor is alightly awaat but r	mostly malt that fa	dos					
No points from pumpkin since it will o	boil and not the	a mach				Tertiary Fermentation Temperature (E):		quickly to cloves (it even numbe the tong										
Added 1 gal absorption due to the pu	mokin	boll and not un	e maan.				Final Gravity (SG):	1 0 2 2	quickly to cloves (it even indribs the tongue signity); bitterness takes over and rounds the beer well.									
Bake the numpkin on a cookie sheet at 350F for 1 hour							Temperature of Reading (E):	39	2nd batch 1 021 SC // 4% ABV 61% attenuation)									
Put the numpkin in a hon bag so it won't clog the manifold							Corrected SG:	1 020	The same as the first batch in terms of aroma and flavor									
Shine additions:							Target Fermentation for Diacetyl Rest (%)	1.020	Paieed temp to 68E									
@60: 0.2 oz cinnamon, 0.1 oz ground cloves, 0.1 oz nutmeg							Target Gravity for Diacetyl Rest (SG)		0/22: 1st batch 1 0/20 SG (/ 6% ABV: 6/% attenuation)									
@30: 0.4 oz cinnamon, 0.2 oz ground cloves, 0.2 oz nutmeg							Calories per Pint	187	Nice aroma of cloves dominates with malt cinnamon, and numpkin" undertones									
@0: 0.4 oz cinnamon. 0.2 oz ground cloves. 0.2 oz nutmeg							12 oz. Bottles Required:	102	Clove flavor initially fades to malt and hit	Clove flavor initially fades to malt and hitterness with a bit of numbrin								
Take 2 gal first runnings, boil down to 0.5 gal, add with 5 min left in boil.							Carbonation		2nd batch exactly the same as the 1st in	and flavor!								
To account for this adjust strike and	Isparce	(add 0 75 gal t	to each)				Bottling Temperature (F):		NOTE: did not seal lid on fermentation be	ucket: just	aved it there: no problems!							
ZERO OUT PUMPKIN TO PROPER	LY CAL	CULATE STRI	KE!				Volumes of CO2:	2.35			=,==							
9/2: Changed boil from 90 min to 60	min.						Priming Sugar (oz):											
Also pull 2 gal 1st runnings, boil down to 0.5 gal and add at 5 min left in boil.							DME (oz):											
Modified strike and sparge to reflect boil loss.							Forced Carbonation (lbs):											