

Apartment Brewing with Kevin

A Series of Problems Solved (sort of)

SILICON VALLEY
SUDZERS

Ingredients:	Lovib	lbs	Gravi	GUS	MC	% bill	Ingredients:	Lovibond	lbs	Gravity	Gravity Units	SRM	% of bill
10L Crystal Malt	10		1.032	0	0	0.0%	DME Extra Light	3		1.044	0	0	0.0%
120L Crystal Malt	120		1.033	0	0	0.0%	DME Light	3.5		1.044	0	0	0.0%
20L Crystal Malt	20		1.033	0	0	0.0%	DME Amber	10		1.044	0	0	0.0%
2L German Crystal Malt	2		1.033	0	0	0.0%	DME Dark	30		1.044	0	0	0.0%
40L Crystal Malt	40		1.034	0	0	0.0%	Sucrose (Table Sugar)	0		1.046	0	0	0.0%
65L Crystal Malt	65		1.034	0	0	0.0%	Honey (Clover)	0.09		1.032	0	0	0.0%
Amber Malt	27		1.032	0	0	0.0%	Agave Nectar	1.5		1.035	0	0	0.0%
Aromatic Malt	20		1.036	0	0	0.0%	Syrup Malt Extract	3.5		1.037	0	0	0.0%
Biscuit Malt	25		1.035	0	0	0.0%	Molasses	80		1.036	0	0	0.0%
Black Malt	500		1.028	0	0	0.0%	Lactose	0		1.035	0	0	0.0%
BlackPrinz	550		1.025	0	0	0.0%	Brown Sugar	40		1.046	0	0	0.0%
Brown Malt	65		1.032	0	0	0.0%							
Caramunich Malt	47		1.034	0	0	0.0%	Total Pounds of 100% Fermentables	0			0		
Carapils Malt	1.5		1.033	0	0	0.0%							
Chocolate Malt	350		1.029	0	0	0.0%							
Flaked Barley	1		1.032	0	0	0.0%							
Flaked Maize	1	3	1.037	111	1	20.9%							
Flaked Oats	1		1.033	0	0	0.0%							
Flaked Rye	2		1.029	0	0	0.0%							
Flaked Wheat	2		1.036	0	0	0.0%							
German Munich Malt	8		1.037	0	0	0.0%							
German Vienna Malt	2.5	11	1.037	407	6	76.5%							
Harrington Pilsner Malt	1.5		1.038	0	0	0.0%							
Honey Malt	25		1.034	0	0	0.0%							
Light Munich Malt	8		1.034	0	0	0.0%							
Maris Otter Pale Malt	2.2		1.038	0	0	0.0%							
Peat-Smoked Malt	2.8		1.034	0	0	0.0%							
Roasted Barley	300		1.033	0	0	0.0%							
Six-Row	1.7		1.035	0	0	0.0%							
Special B Malt	110		1.03	0	0	0.0%							
White Wheat	3	0.375	1.038	14.25	0	2.6%							
Total lbs Grain							14.375		Grain GU		\$32.25 6 MCU Tot		
Total GU							\$32.25 5 SRM		OG		1.070 1.018 6.92%		
Attenuation							75%						
Water Calculations													
Quarts of water/lb grain							1.25						
Strike water (gal)							4.49						
Mash temp F							146.00						
Grain temp F							75.00						
Strike temp							157.71						
Water losses													
Boil time (Hours)							2.50						
Evaporation (%/hr)							10%						
Shrinkage (4%)							4%						
Total boil volume needed							6.78						
Preboil gravity target							1.052						
Grain loss (0.175gal/lb)							2.52						
Equipment loss							0.5						
First runnings							1.48						
Infusion volume							5.30						
Total Water needed							9.79						

SRM Ratings	
Color	SRM Number
Clear	0
Light Straw	1 - 2.5
Pale Straw	2.5 - 3.5
Dark Straw	3.5 - 5.5
Light Amber	5.5 - 10.0
Pale Amber	10.0 - 18
Dark Amber or Copper	18 - 26
Very Dark Amber	26 - 40
Black	40+

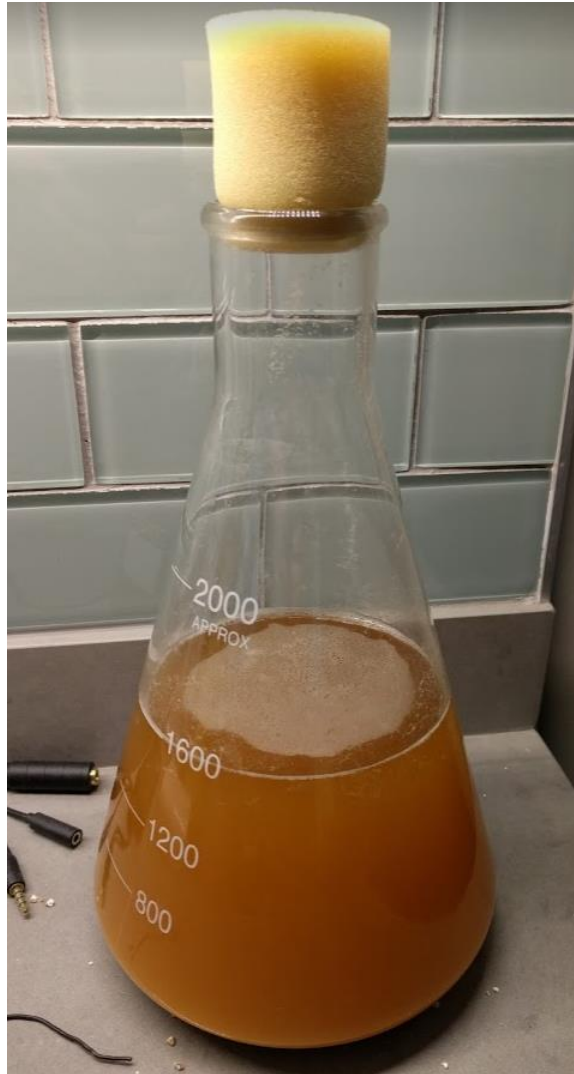
Hop Utilization	
Minutes	%
0 to 5	5
6 to 10	6
11 to 15	8
16 to 20	10.1
21 to 25	12.1
26 to 30	15.3
31 to 35	18.8
36 to 40	22.8
41 to 45	26.9
46 to 50	28.1
51 to 60	30

SECRETS

Working Space



Starters



Brew Kettle



They're not kidding around

Mash Tun Set up



Showerhead Sparging



Three tier (lol)

Mash & Boil



Bit of a very stuck sparge

Semi-solution:
new mash paddle

Lesson learned:
rice hulls needed



Still sparging with
showerhead



Plate Chiller



Frozen water bottles are key



300 micron mesh
is way too fine



The little pump that could

Fermentation



Plastic



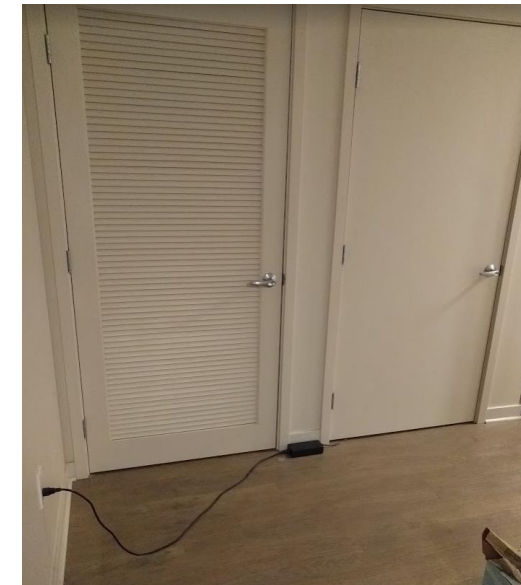
And plastic



And plastic

Temperature Control

More plastic



Serving



Transfer to keg with standard siphon
A nightmare of tubes

