

Bru'n Water

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Grain Bill Input

Hover cursor over cells w/ red corner marks to display helpful information

Enter data into **Light Blue** cells, **Yellow** cells display calculated results, **Pink** cells contain selection boxes

Grains	Grain Type	Quantity (lb)	Quantity (oz)	Color (L)	Percentage of Grain Bill
MARIS OTTER	Base Malt	16.9	0.0	3	73.5
VICTORY	Base Malt	2.5	0.0	25	10.8
BROWN	Crystal Malt	1.1	0.0	65	4.6
CARAFA II	Roast Malt	0.5	0.0	415	2.0
PALE CHOCOLATE	Roast Malt	0.6	0.0	225	2.6
CARA 60	Crystal Malt	1.5	0.0	60	6.5
	Base Malt	0.0	0.0	2	0.0
	Base Malt	0.0	0.0	0	0.0
	Base Malt	0.0	0.0	0	0.0
	Base Malt	0.0	0.0	0	0.0
Enter grain names above to help	Base Malt	0.0	0.0	0	0.0
verify that all the grist is entered	Base Malt	0.0	0.0	0	0.0
Total Grist Weight (lbs)		23.0	Est. Beer Color (EBC)		39.7
Water to Grist Ratio (Qts/Lb)		1.35	Est. Beer Color (SRM)		20.1
Malt Color Setting	Lovibond				
Water used for Mash	Adjusted Water				

Mash pH Result

Estimated Room-Temperature Mash pH

5.50

Mash pH Guidance

Suggested mash pH range for lighter colored beers is 5.3 to 5.4
 Suggested mash pH range for darker colored beers is 5.4 to 5.6
 Tart or crisp beer styles may benefit from a mash pH range of 5.2 to 5.3

Bru'n Water v. 1.24

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Water Profile Adjustment Calculator

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Desired Water Profile		Calcium (ppm)	Magnesium (ppm)	Sodium (ppm)	Sulfate (ppm)	Chloride (ppm)	Bicarbonate (ppm)	Approximate Color Descriptors for Water Profiles
Brown Full		50	5	27	50	60	85	Yellow: under 6 SRM
Existing Water Profile		0	0	0	0	0	0	Amber: 7 to 17 SRM
Dilution Water Profile								Brown: 18 to 30 SRM
RO Water		1	0	8	1	4	16	Black: over 31 SRM
Percent Dilution Water	0	0	oz/gal	0	pt/gal	< These conversions are provided for your convenience		
Diluted Water Profile		0	0	0	0	0	0	
Target Finished Water Adjustment (ppm)		50	5	27	50	60	85	
Actual Finished Water Adjustment (ppm)		50	0	87	52	51	200	
Mashing Water Profile		50	0	87	52	51	200	

								Total Water Additions				Total Batch Volume	
Estimated Mash pH	5.50	This pH value is NOT VALID until the grain information is properly entered for the beer on the Grain Bill Input sheet.						Mash		Sparge			
Water Additions								Water Volume (gal)	7.75	Water Volume (gal)	12.25 <th>Water Volume (gal)</th> <td>13.50</td>	Water Volume (gal)	13.50
Minerals	Addition (gram/gal)	Calcium (ppm)	Magnesium (ppm)	Sodium (ppm)	Sulfate (ppm)	Chloride (ppm)	Bicarbonate (ppm)	Total Mineral Additions (grams)	Total Mineral Additions (grams)				
Gypsum (CaSO ₄ x 2H ₂ O)	0.35	21.5			51.6			2.7	4.3				
Calcium Chloride (CaCl ₂)	0.30	28.6				50.6		2.3	3.7				
Epsom Salt (MgSO ₄ x 7H ₂ O)	0.00		0.0		0.0			0.0	0.0				
Magnesium Chloride (MgCl ₂ x 6H ₂ O)	0.00		0.0			0.0		0.0	0.0				
Canning Salt (NaCl)	0.00			0.0		0.0		0.0	0.0				
Baking Soda (NaHCO ₃)	1.20			86.8			230.3	9.3	Not Recommended				
Chalk (CaCO ₃)	0.00	0.0					0.0	0.0	Not Recommended				
Pickling Lime (Ca(OH) ₂)	0.00	0.0					0.0	0.0	Not Recommended				
Acids	Addition				Sulfate (ppm)	Chloride (ppm)	Bicarbonate (ppm)						
Mash	(mL/gal)	Mash Acid Strength parameters are entered below						Total Acid Addition (ml)					
Lactic	0.00	Strength	88.0	%	0.0	0.0	0.0	0.0					
Sparge		Sparge Acid Strength parameters are entered on the Sparge Acidification sheet						Total Acid Addition (ml)					
Lactic		Strength	88.0	%	0.0	0.0		0.0					

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Most mineral additions should be added to both the mash water and sparge water. DO NOT add alkalinity producing minerals such as chalk, baking soda, or pickling lime to sparge water since that counteracts the desired sparge water acidification. Either reserve those minerals from the sparge water and add directly to the kettle, or delete them and substitute other calcium or sodium containing minerals to make up for their contributions. Do not use the acid amount calculated for Mash Adjustment from this sheet for the Sparge Water adjustment. Use the acid amount calculated on the Sparge Acidification sheet for Sparge Water. For best result, add acids prior to heating the water since heating can drive off a portion of the alkalinity that the acid addition was calculated to remove.

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Input Custom Water Profiles at the bottom of the Table below
All Water Profiles are User customizable