



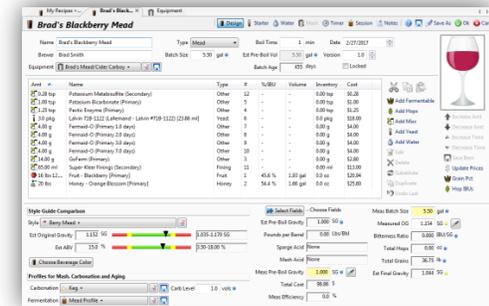
BeerSmith 3 Beer Brewing Software

Brad Smith, PhD

Overview

▶ BeerSmith 3 Topics

- Creating a good equipment profile
- Building recipes and using ingredients
- Using tools to adjust your recipe
- Mash and yeast starter calculations
- Brew day features
- The BeerSmith cloud, finding and sharing recipes
- BeerSmith mobile and desktop/phone/tablet use
- Inventory and shopping list
- New Features in BeerSmith 3



Advantages of Brewing Software



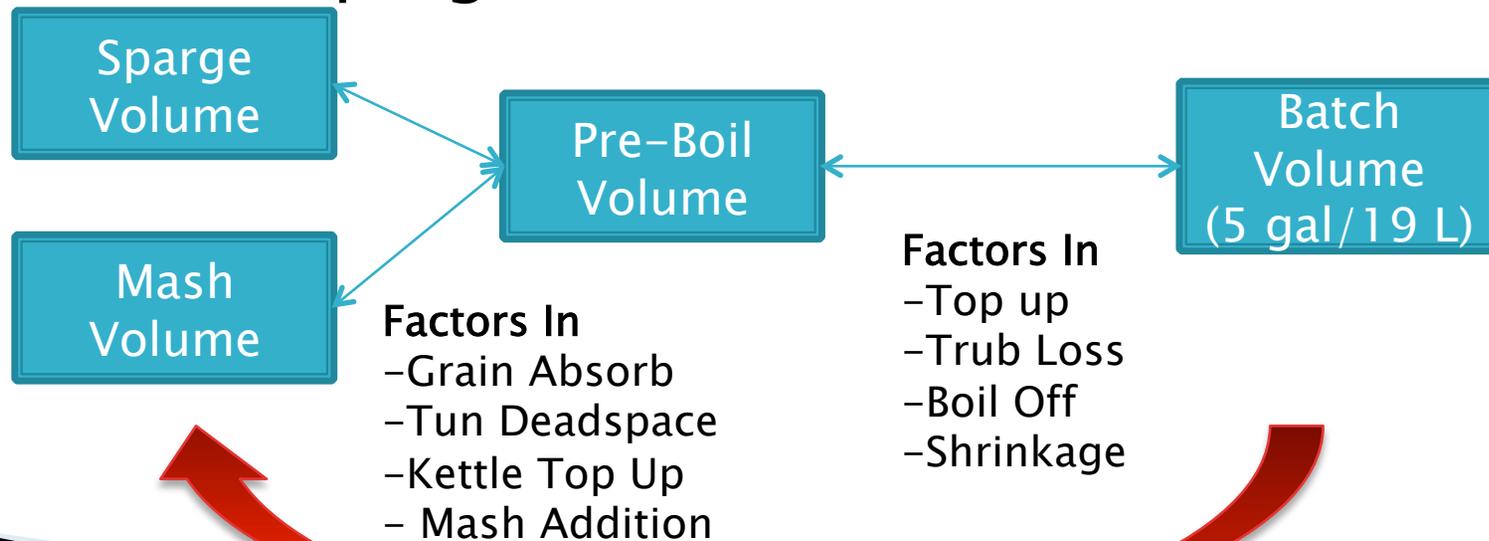
- ▶ BeerSmith is an “all in one” tool for brewing
 - Goal is to help you brew better beer!
 - Makes it easy to create your own recipes
 - Saves time, money versus guessing or doing the calculations by hand
 - Get the beer right the first time
 - Can find/use other people’s recipes from the BeerSmith Cloud (Over 1.3 Million recipes)
 - Provides record keeping/repeatability
 - Phone/tablet integration (Mobile version)
- ▶ Downside: There is a learning curve!
 - Software is only as good as what you put into it



Creating an Equipment Profile



- ▶ BeerSmith Works Back from Batch Vol to calculate Sparge Volume needed



Perfecting your Equip Profile



- ▶ Measure your Volumes at each step
 - Use measurements to adjust your profile
- ▶ Understand Brewhouse Efficiency
 - A “gross” number that includes all losses
 - Typically in the 70–75% range
 - Not the same as mash efficiency – which covers only losses in the mash
- ▶ Mash Tun Heat Capacity
 - Used to factor in heat absorbed by the mash tun
 - Raise it if your actual mash in temperature comes in low, lower it if your mash temps are too high





File Edit View Insert Recipes Profiles Ingredients Tools Unit Tools Help

Print Undo Back My Recipes Cloud Local Search Cloud Search Shopping Inventory Calendar Archive Add-ons Options

Scale Recipe Convert Adj Gravity Adj Bitterness Adj Color Add to Cart Remove Inv Brew Steps

My Recipes (46)
BeerSmith 3 Samples (14)
Brad Beer Recipes (10)

My Recipes
Tart Cherry ...
Brad's Engl... x

Brad's English Pale Design Starter Water Mash Timer Session Notes Vols Save As Ok Cancel

Name Brad's English Pale Type All Grain Boil Time 75 min Date 1/28/2017
Brewer Brad Smith Batch Size 11.00 gal Est Pre-Boil Vol 14.19 gal Version 1.0
Equipment BrewEasy 10 Gallon - Brad's BH Efficiency 64.00 % Est Mash Eff 71.6 % Locked

Amt	Name	Type	#	%/IBU	Volume	Inventory	Cost
2.0 pkg	English Ale (White Labs #WLP002) [35.49 ml]	Yeast	14	-	0.0 pkg	\$12.00	
2.00 Items	Whirlfloc Tablet (Boil 15.0 mins)	Fining	12	-	0.00 Items	\$1.00	
2.2 oz	Roasted Barley (300.0 SRM)	Grain	10	0.6 %	0.01 gal	\$0.25	
3.00 oz	Northern Brewer (7.00 % - Boil 60.0 min	Hop	11	34.1 IBUs	0.00 oz	\$3.00	
5.19 g	Calcium Chloride (Mash)	Water ...	5	-	0.00 g	\$0.52	
6.64 g	Epsom Salt (MgSO4) (Mash)	Water ...	4	-	0.00 g	\$0.66	
9.31 g	Salt (Mash)	Water ...	3	-	0.00 g	\$0.93	
	Gypsum (Calcium Sulfate) (Mash)	Water ...	2	-	0.00 g	\$1.47	
1 lbs	Honey Malt (25.0 SRM)	Grain	9	4.0 %	0.08 gal	\$1.80	
2 lbs	Caramel/Crystal Malt - 60L (60.0 SRM)	Grain	8	8.0 %	0.16 gal	\$3.59	
4 lbs	Corn, Flaked (1.3 SRM)	Grain	7	15.9 %	0.31 gal	\$5.99	
18 lbs	Maris Otter (Crisp) (4.0 SRM)	Grain	6	71.6 %	1.40 gal	\$22.46	
16.59 gal	Brad's Brewing Water	Water	1	-	0.00 gal	\$16.59	

Style Guide Comparison

Style Strong Bitter

Est Original Gravity	Bitterness (IBUs)	Color	Est ABV
1.055 SG	36.3 IBUs	12.2 SRM	4.6 %
1.048-1.060 SG	30.0-50.0 IBUs	8.0-18.0 SRM	4.60-6.20 %

Profiles for Mash, Carbonation and Aging

Mash BIAB, Full Body Adjust Temp for Equip

Carbonation My Carbonation Profile Carb Level 2.4 vols

Fermentation English Ale Profile

Meas Batch Size 10.85 gal
Measured OG 1.020 SG
Bitterness Ratio 0.665 IBU/SG
Total Hops 4.00 oz
Total Grains 25.09 lb
Est Pre-Boil Gravity 1.047 SG

Est Final Gravity 1.020 SG
Pounds per Barrel 0.70 Lbs/Bbl
Sparge Acid None
Mash Acid None
Meas Pre-Boil Gravity 1.048 SG
Total Cost 71.26 \$

Choose Fields - Choose Fields

Undo Last

Add Fermentable
Add Hops
Add Misc
Add Yeast
Add Water
Edit
Delete
Substitute
Duplicate
Undo Last

Increase A
Decrease T
Save Item
Update Prices
Grain Pct
Hop IBUs

BeerSmith Home Brewing Software

Name, Equipment

Color

Ingredients

Choose Ingredients

Style Comparison

Custom Fields

Mash, Fermentation Profiles

Building a Simple Recipe

- ▶ Enter the name, recipe type
- ▶ Select equipment profile
- ▶ Select target beer style
- ▶ Start adding ingredients!



Brad's Chocolate Milk Stout v2 [Design] [Starter] [Water] [Mash] [Timer] [S]

Name: Brad's Chocolate Milk Stout v2 Type: All Grain Boil Time: 60 min Date: 3/27/2014

Brewer: Brad Smith Batch Size: 5.00 gal Est Pre-Boil Vol: 3.63 gal Version: 1.0

Equipment: Brad's Extract BH Efficiency: 65.00 % Est Mash Eff: 71.5 % [Locked]

Amt	Name	Type	#	%/IBU	Volume	Inventory	Price
0.25 oz	Clearfine (Secondary 1.0 days)	Fining	7	-	-	0.00 oz	0.25 \$/oz
0.50 oz	Cluster [7.00 %] - Boil 30.0 min	Hop	5	7.3 IBUs	-	0.00 oz	1.00 \$/oz
1.0 pkg	Pacific Ale (White Labs #WLP041) [35.49 ml]	Yeast	6	-	-	0.0 pkg	6.00 \$/pkg
3.50 oz	Cranberry Extract (Bottling 5.0 mins)	Flavor	8	-	-	0.00 oz	0.25 \$/oz
4.0 oz	Caramel/Crystal Malt - 80L (80.0 SRM)	Grain	3	2.5 %	0.02 gal	0.0 oz	1.28 \$/lb
12.0 oz	Chocolate Malt (350.0 SRM)	Grain	2	7.4 %	0.06 gal	0.0 oz	1.28 \$/lb
1 lbs 3.0 oz	Milk Sugar (Lactose) [Boil] (0.0 SRM)	Sugar	4	11.7 %	0.10 gal	0.0 oz	1.28 \$/lb
8 lbs	Pale Malt (2 Row) US (2.0 SRM)	Grain	1	78.5 %	0.63 gal	0.0 oz	1.28 \$/lb

Using Ingredients



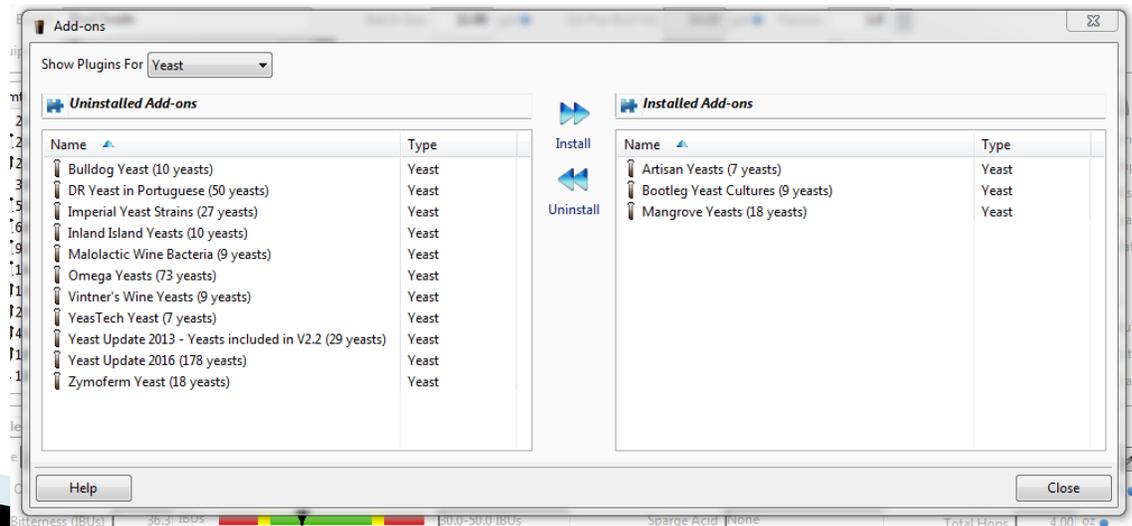
- ▶ You can easily create your own ingredients
 - Go to Ingredients→Hops to add a new hop variety
 - Can also add Grains, Yeast, Water and Misc items
- ▶ Each recipe has a complete copy of its ingredients
 - So you can keep a recipe “as brewed”
- ▶ Have two options for customizing ingredients
 - Editing an ingredient within a recipe changes that ingredient for just that recipe (i.e. hop alpha %)
 - Editing from the Ingredients view changes it for all future recipes you build



Getting New Add-ons



- ▶ Go to File->Add-ons to get new stuff
 - Many vendor specific malts and grains, fruits, more
 - New hop and yeast varieties
 - Recipe packs
 - Updates



Matching a Style



- ▶ Style Sliders give you a visual indicator of OG, IBU, Color and ABV compared to target style
- ▶ Editing the style lets you view details form BJCP including description, ingredients, and examples

The screenshot displays the BeerSmith software interface. The main section is titled "Style Guide Comparison" and shows a comparison between the user's current recipe and a target style, "Strong Bitter".

Parameter	User Value	Target Range
Est Original Gravity (SG)	1.055	1.048-1.060
Bitterness (IBUs)	36.3	30.0-50.0
Color (SRM)	12.2	8.0-18.0
Est ABV (%)	4.6	4.60-6.20

Below the comparison, there are sections for "Profiles for Mash, Carbonation and Aging":

- Mash:** BIAB, Full Body (with checkboxes for "Adjust Temp for Equip" and "Save")
- Carbonation:** My Carbonation Profile (with checkboxes for "Save" and "Carb Level" set to 2.4 vols)
- Fermentation:** English Ale Profile (with checkboxes for "Save" and "Print")

On the right side, there are additional recipe parameters:

- Est Final Gravity: 1.020 SG
- Pounds per Barrel: 0.70 Lbs/Bbl
- Sparge Acid: None
- Mash Acid: None
- Meas Pre-Boil Gravity: 1.048 SG
- Total Cost: 71.26 \$
- Meas Efficiency: 62.5 %

Adjusting Your Recipe

- ▶ Tools to adjust your recipe:
 - **Scale Recipe** – Change recipe size, or scale a recipe to match your equipment
 - **Convert** – Converts between All Grain, Extract
 - **Adj Gravity** – Sets OG level by adjusting grain qtys
 - **Adj Bitterness** – Sets IBUs by adjusting hop qty
 - **Adj Color** – Adjusts grain mix to set color of beer
 - **Grain Pct** – Set percent for each grain in recipe



Sample Flow– Recipe Building



- ▶ Select your grains
- ▶ Use **Grain Pct** to set the grain percentages
- ▶ Use **Adjust OG** to set target gravity
- ▶ Enter hops and **Adjust Bitterness**

A screenshot of the "Grain Pct" dialog box in BeerSmith software. The dialog box contains a table with three columns: "Grains", "Percent", and "Weight". The table lists five grain types with their respective percentages and weights. At the bottom of the dialog box are three buttons: "Help", "Ok", and "Cancel".

Grains	Percent	Weight
Maris Otter (Crisp)	71.60 %	17.96 lb
Corn, Flaked	15.91 %	3.99 lb
Caramel/Crystal Malt - 60L	7.96 %	2.00 lb
Honey Malt	3.98 %	1.00 lb
Roasted Barley	0.56 %	0.14 lb
Totals	100.00 %	25.09 lb

Brewday Timer and Brew Sheet



- ▶ Brewday Timer tab times/reminds you of mash and boil steps (desktop and mobile)
- ▶ Brew Sheet shows step-by-step instructions for brewing your recipe

My Recipes > ... Brad's Choco... X

Brad's Chocolate Milk Stout v2

Mash/Steep Timer: Run Pause Reset Set Next Step In:

1:17 hours - Mash Complete

Extract Grain Steep Temp: F Steep Time: min

Boil Timer: Run Pause Reset Set Next Step In:

0 min - Add Ingredients

- 1 lbs 3.0 oz - Milk Sugar (Lactose) [Boil] (0.0 SRM) - [Sugar]

30 min - Add Ingredients

- 0.50 oz - Cluster [7.00 %] - Boil 30.0 min - [Hop]

1:00 hour - End of Boil

Dry Stout
Dry Stout (43 A)

Type: All Grain **Date:** 14 May 2011
Batch Size: 5.00 gal **Brewer:** Brad Smith
Boil Size: 6.00 gal **Asst Brewer:**
Boil Time: 60 min **Equipment:** Brew Pot (6+gal) and Iglcoo/Gott Cooler (5 Gal)
End of Boil Vol: 5.46 gal **Efficiency:** 72.00 %
Final Bottling Vol: 5.00 gal **Est Mash Efficiency:** 75.6 %
Fermentation: Ale, Two Stage **Taste Rating:** 44.0

Taste Notes: One of my favorite stock beers - I always keep a keg on hand. Rich flavored dry Irish Stout that is very simple to make. Perfect every time!

Prepare for Brewing

- Clean and Prepare Brewing Equipment
- Total Water Needed: 7.21 gal
-

Water Prep

Amt	Name	Type	#	%/IBU
5.00 gal	Dublin, Ireland	Water	1	-
10.00 g	Gypsum (Calcium Sulfate) (Mash 60.0 mins)	Water Agent	2	-

Mash or Steep Grains

Mash Ingredients

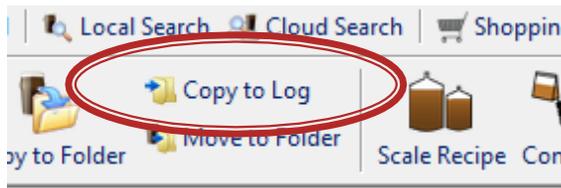
Amt	Name	Type	#	%/IBU
5 lbs	Pale Malt (2 Row) UK (2.5 SRM)	Grain	3	62.5 %
2 lbs	Barley Flaked (1.7 SRM)	Grain	4	25.0 %
1 lbs	Black Barley (Stout) (500.0 SRM)	Grain	5	12.5 %

Mash Steps

Using the Brew Log



- ▶ Each time I brew a recipe I update the brew date and version number
- ▶ After brewing/recording my data, I use the **Copy to Log** button
- ▶ The brew log folder has a record of every recipe “as brewed”



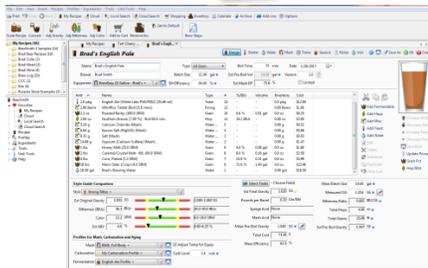
My Recipes > Brew Log			
Name	Style	Type	Batch Size
49th Parallel IPA	English IPA	Extract	5.02 gal
BeerSmith's Wit BrewEasy	Witbier	All Grain	11.00 gal
Brad's Berry-Cherry Mead	Melomel	Mead	5.40 gal
Brad's Black Currant Mead	Melomel	Mead	5.50 gal
Brad's Blackberry Mead	Melomel	Mead	5.50 gal
Brad's Cider	English Cider	Extract	5.00 gal
Brad's Cider 2	English Cider	Cider	5.00 gal
Brad's Cranberry Mead	Melomel	Mead	5.50 gal
Brad's English Pale	Strong Bitter	All Grain	11.00 gal
Brad's Great Lakes Porter BrewE...	Robust Porter	All Grain	11.50 gal
Brad's Into Darkness	Melomel	Mead	5.50 gal
Brad's Pomegranate Wine	Red Wine	Wine	5.00 gal



The BeerSmithRecipes Cloud



Cloud Search
Find public recipes from any platform



Desktop - Cloud Folder/Search



Mobile - Cloud Folder/Search

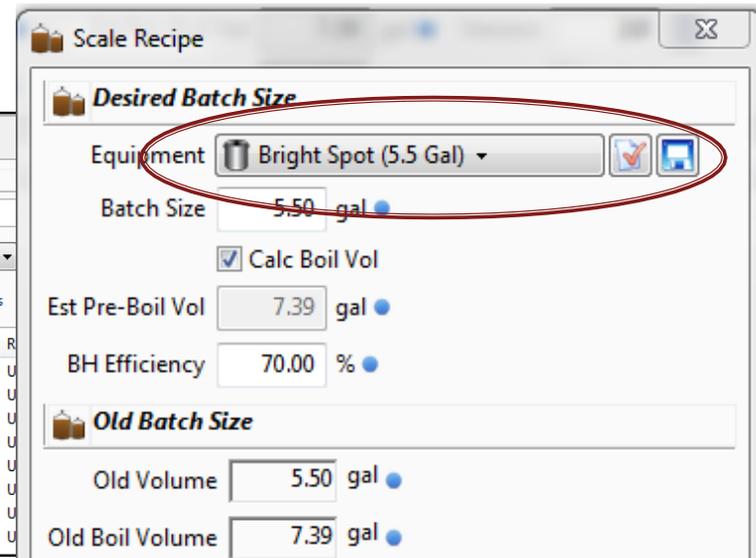
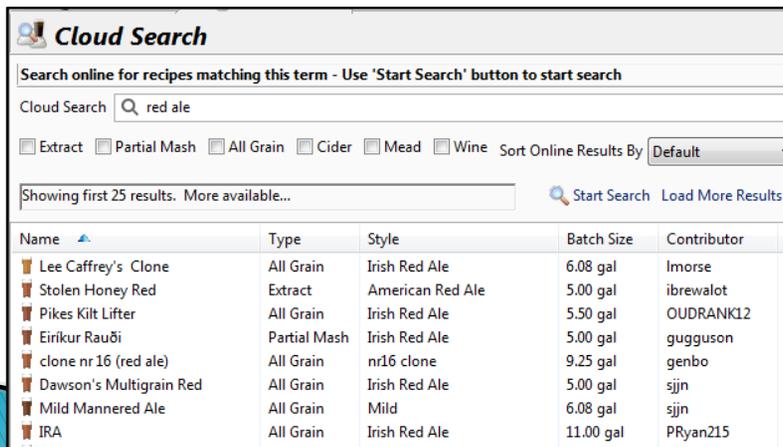


Web - Share/Search

Finding and Scaling Recipes



- ▶ Use **Cloud Search** to find a recipe then **Copy Local**
 - Sort by “rating” to see the top rated recipes
- ▶ Edit your local copy and use **Scale Recipe** to scale the recipe to match your equipment profile
- ▶ Brew it!



Cloud Folder – Sharing Recipes



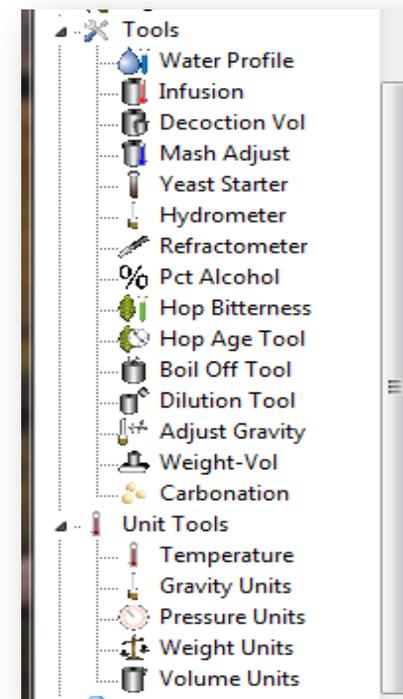
- ▶ Set up a cloud account at **BeerSmithRecipes.com**
- ▶ Use it to log in under **View->Cloud**
- ▶ You can copy/paste recipes into your Cloud folder or you can use **Copy to Cloud**
- ▶ Recipes are private by default
 - Mark them public to let others see them
 - BS3 adds an “unlisted” option as well
- ▶ Anything you put on your cloud account will show up on your other machines/phones if **logged into the same account**



Standalone Tools in BeerSmith



- ▶ Over a dozen brewing calculators and unit tools in BeerSmith
 - Unit conversions
 - Adjust gravity, mash
 - Hydrometer and Refractometer tools
 - Infusion, Decoction calculators
 - Water Profile tool - to match a given water profile
 - Carbonation
 - Many more...



Inventory in BeerSmith



Remove Recipe from Inventory

Recipes



Add to Shopping List

Inventory View

Shopping List View



Add to Inventory



Mead, Wine, Cider



- ▶ Mead (for example)
 - Dozens of preloaded honey varieties/ingredients
 - Fruits with adjustable Brix (sugar) levels
 - Nutrient calculator (TONSA or TiNOSA)
 - Supports yeast alcohol tolerance for high gravity meads
 - BJCP Mead Style Guide

A screenshot of the BeerSmith software interface for a recipe named "Brad's Blackberry Mead". The interface shows various settings and a detailed ingredient list. The recipe is set for a 5.50 gal batch size with a 1 min boil time. The ingredient list includes items like Potassium Metabisulfite, Potassium Bicarbonate, Pectic Enzyme, Lallemand yeast, Fermaid-O, Goferm, Super-Kleer Finings, and Honey. The bottom section shows style guide comparison for "Berry Mead" with sliders for Original Gravity (1.152 SG) and ABV (15.0%), and other parameters like Meas Pre-Boil Gravity (1.000 SG) and Total Cost (\$98.26).

Amnt	Name	Type	#	%/IBU	Volume	Inventory	Cost
0.28 tsp	Potassium Metabisulfite (Secondary)	Other	12	-	-	0.00 tsp	\$0.28
1.00 tsp	Potassium Bicarbonate (Primary)	Other	5	-	-	0.00 tsp	\$1.00
1.25 tsp	Pectic Enzyme (Primary)	Other	4	-	-	0.00 tsp	\$1.25
3.0 pkg	Lalvin 71B-1122 (Lallemand - Lalvin #71B-1122) (23.66 ml)	Yeast	6	-	-	0.0 pkg	\$18.00
4.00 g	Fermaid-O (Primary 1.0 days)	Other	7	-	-	0.00 g	\$4.00
4.00 g	Fermaid-O (Primary 2.0 days)	Other	8	-	-	0.00 g	\$4.00
4.00 g	Fermaid-O (Primary 7.0 days)	Other	9	-	-	0.00 g	\$4.00
4.00 g	Fermaid-O (Primary 7.0 days)	Other	10	-	-	0.00 g	\$4.00
4.00 g	Goferm (Primary)	Other	3	-	-	0.00 g	\$2.80
65.00 ml	Super-Kleer Finings (Secondary)	Fining	11	-	-	0.00 ml	\$13.00
16 lbs 12...	Fruit - Blackberry (Primary)	Fruit	1	45.6 %	1.93 gal	0.0 oz	\$20.94
20 lbs	Honey - Orange Blossom (Primary)	Honey	2	54.4 %	1.66 gal	0.0 oz	\$25.60

Water Matching Tool



- ▶ Build/Match Water Profiles within the recipe
 - Start with any base water profile or blend
 - Does “best match” for both mash and sparge waters
 - Provides water analysis for adjusted water profile
 - Feeds into the mash pH estimator

The screenshot shows the BeerSmith software interface for a recipe named "BeerSmith's Dry Irish Stout". The "Water" tab is active, displaying the "Water Profile" section. The "Total Water Needed" is 16.61 gal, and the "Tot Mash Water Adds" is 16.61 gal. The "Sparge Vol" is 0.00 gal. The "Detailed Water Volumes" table shows the following data:

Amount	Name	Calcium	Magnesium	Sodium	Sulfate	Chloride	Bicarbonate
17.57 gal	Brad's Brewing Water	90.00 ppm	20.00 ppm	70.00 ppm	70.00 ppm	70.00 ppm	100.00 ppm

The "Water Ingrid Vol" is 17.57 gal, and the "Base Water Profile" is Calcium: 90.0 ppm, Magnesium: 20.0 ppm, Sodium: 70.0 ppm, Sulfate: 70.0 ppm, Chloride: 70.0 ppm, Bicarbonate: 100.0 ppm.

The "Mash and Sparge Water Agents" section shows the following data:

Amount	Name	Use	Calcium	Magnesium	Sodium	Sulfate	Chloride	Bicarbonate
5.49 g	Calcium Chloride	Mash	23.8 ppm	0.0 ppm	0.0 ppm	0.0 ppm	42.1 ppm	0.0 ppm
7.03 g	Epsom Salt (MgSO4)	Mash	0.0 ppm	11.0 ppm	0.0 ppm	43.6 ppm	0.0 ppm	0.0 ppm
9.85 g	Salt	Mash	0.0 ppm	0.0 ppm	61.6 ppm	0.0 ppm	97.9 ppm	0.0 ppm
15.55 g	Gypsum (Calcium Sulfate)	Mash	57.6 ppm	0.0 ppm	0.0 ppm	138.0 ppm	0.0 ppm	0.0 ppm

The "Adjusted Mash Water Profile" section shows the following data:

Calcium	Sodium	Chloride	Magnesium	Sulfate	Bicarbonate
90.0 ppm (50-150)	70.0 ppm (0-150)	70.0 ppm (0-250)	20.0 ppm (10-40)	70.0 ppm (50-250)	100.0 ppm (0-250)

The "Water Analysis" section shows the following data:

Alkalinity	Water Resid Alk	Sulfate to Chloride Ratio	Effective Hardness	Water Color Range	Sulfate/Chloride Balance
82.0 ppm	5.92 ppm as CaCO3	1.0	76.1 ppm	6-11 SRM	Balanced

Mash pH In Recipe



- ▶ Estimate and Adjust Mash pH within a recipe
 - Unadjusted mash pH based on grain bill/water
 - Adjusted mash pH includes any acid additions
 - Supports lactic, phosphoric and acid malts
 - Also has an acid calculator bottom right to estimate final adjustments
 - Adjust this last – after the recipe and water profiles are set

A screenshot of the BeerSmith software interface showing the Mash pH settings. The interface is divided into several sections: "Mash Initial Conditions", "Mash Volume Needed", "Sparge/Lauter", "Water and Unadjusted Mash pH", "Mash pH Acid Additions", and "Final Mash pH Adjustments".

Mash Initial Conditions		Mash Volume Needed		Sparge/Lauter		Water and Unadjusted Mash pH	
Grain Temp	72.0 F	Mash Tun Addition	0.00 gal	Sparge Vol	0.00 gal	Water	Distilled Water
Mash Tun Temperature	72.0 F	Tun Deadspace	0.25 gal	Sparge Temp	168.1 F	Water pH	7.00
Decoction Boil Temp	212.0 F	<input checked="" type="checkbox"/> Adjust Mash Vol for Deadspace		Post Mash Gravity	1.033 SG	Water Resid Alk	71.17 ppm as CaCO3
Mash Grain Wt	20.49 lb	Mash Volume Needed	18.21 gal	Est Mash Eff	70.2 %	Unadjusted Mash pH	5.72
Grain Absorption	1.50 gal	Mash Tun Volume	15.00 gal	Est Pre-Boil Vol	14.86 gal		

Mash pH Acid Additions	
Amt	Name
17.00 ml	Lactic Acid (Mash)

Final Mash pH Adjustments	
Adjusted Mash pH	5.30
Measured Mash pH	5.72
Target pH	5.20
Acid	None
Acid Concentration	88.00 %
Mash Acid Amount	-
Sparge/Mash Out Acid	- (optional)

BeerSmith 3 More Features



- ▶ Support for whirlpool hops and “No chill”
 - Can now set both time and temperature for additions, enhanced model to carry forward
- ▶ Two stage yeast starters in recipe
- ▶ Support for alcohol tolerance in yeast
- ▶ Cloud folders to organize online recipes
- ▶ High altitude brewing
- ▶ Large changes to ingredient and profiles databases – hundreds of new items



BeerSmith 3.1



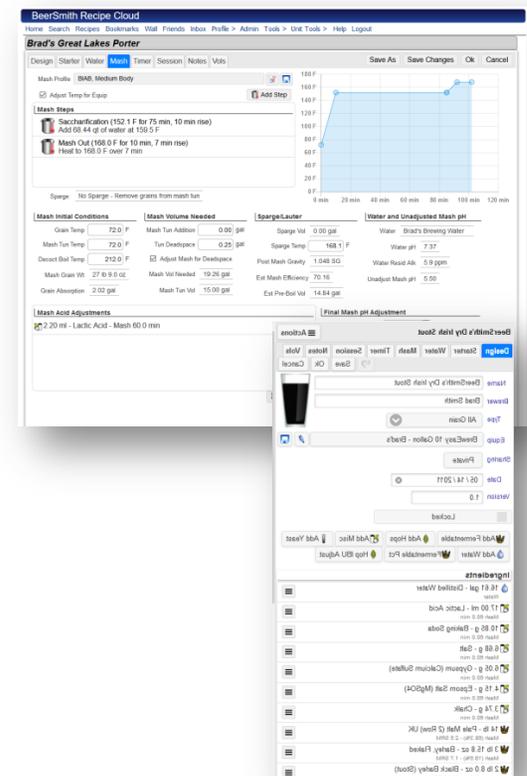
- ▶ BeerSmith 3.1 Desktop Update (June 2020)
 - Alternate pH acid adjustment models
 - Tilt import from Google Spreadsheet or CSV
 - New dry hop settings to support fermentation/other dry hops
 - Transactional Data Storage
 - Saves data immediately on edits
 - Higher reliability, less risk of data loss
 - Lays groundwork for Profile and Ingredient sync online
 - Better full backup/recover to zip file option
 - Large number of bug fixes



Web Based BeerSmith



- ▶ Tools and Mobile Friendly Access added last year to BeerSmithRecipes.com
 - Mobile Friendly view of recipes
 - Full suite of 22 BeerSmith Brewing tools for Gold + members
- ▶ Cloud Version in Beta Test Now
 - Desktop and mobile recipe editing from any browser – full featured recipe builder
 - Ability to edit recipes from any device
 - Profile/Ingredient manual transfer between web and desktop
 - Will be working on a web based inventory and automatic data sync with desktop in future
 - Expect to release by June



Web Based BeerSmith



BeerSmith Recipe Cloud

Home Search Recipes Bookmarks Wall Friends Inbox Profile > Admin Tools > Unit Tools > Help Logout

Brad's Great Lakes Porter

Design Starter Water Mash Timer Session Notes Vols Save As Save Changes Ok Cancel

Name: Brad's Great Lakes Porter Type: All Grain Boil Time: 75 min Date: 12/30/2016
Brewer: Brad Smith Batch Vol: 11.00 gal Sharing: Private Version: 1.1
Equip: BrewEasy 10 Gallon - Brad's Efficiency: 63.00 % Pre-Boil: 14.84 gal Locked

- 10.33 g - Salt - Mash 60.0 min
- 7.37 g - Epsom Salt (MgSO4) - Mash 60.0 min
- 5.76 g - Calcium Chloride - Mash 60.0 min
- 2.20 ml - Lactic Acid - Mash 60.0 min
- 2.50 oz - Centennial - Boil 60 min (36.7 IBUs)
- 2.00 Items - Whirlfloc Tablet - Boil 15.0 min
- 1.00 oz - Willamette - Steep 20 min (2.8 IBUs)
- 2 pkg - English Ale - White Labs #WLP002

Style: Robust Porter Est FG: 1.019 SG Tot Cost: \$300

Est OG: 1.059 SG	Original Gravity	1.048 - 1.065 SG	Bitter Ratio: 0.674 BU/SG
Est IBUs: 39.5 IBUs	Bitterness	25.0 - 50.0 IBUs	Tot Grains: 27 lb 9.0 oz
Color: 34.5 SRM	Color	22.0 - 35.0 SRM	Tot Hops: 3.50 oz
ABV: 5.3%	ABV	4.8 - 6.5% ABV	Hops per BBL: 0.62 lb/bbl

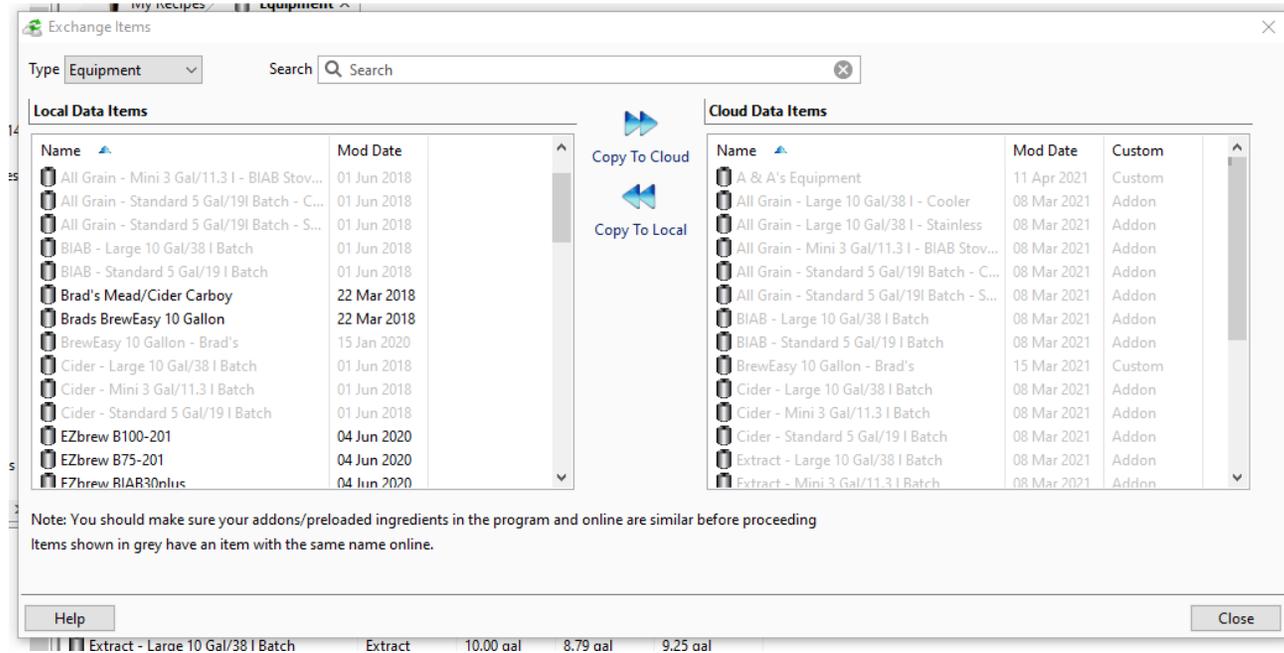
Mash: BIAB, Medium Body Adjust Temp for Equip
Carbonation: Keg Carb Vols: 2.5 vols
Fermentation: Ale, Two Stage

- Full Recipe Builder
- Manual exchange of profiles/ingredients
- Addons available as preloaded, selectable ingredients
- Can create custom ingredients/profiles
- Web editor is mobile friendly

Web to Desktop Transfer



- ▶ Beta testers wanted ability to transfer profiles and equipment with web version:



BeerSmith Sites

- ▶ **BeerSmith.com**
 - [BeerSmith.com/video](#) – Video tutorials
 - [BeerSmith.com/Blog](#) – Articles on brewing and BeerSmith
 - Discussion forum (21,000+ members)
 - [BeerSmith.com/forum](#)
 - [BeerSmith.com/Mobile](#) – Info on the mobile site
- ▶ **General Homebrewing**
 - Blog with 250+ articles and Podcast
 - [BeerSmith.com/blog](#)
 - [BeerSmith.com/radio](#)
 - BeerSmith Podcast on iTunes – every other week
 - Newsletter – Brewing articles every week to your inbox
 - About 85,000 people get the newsletter weekly
 - Book: “Home Brewing with BeerSmith” – brewing focus
 - [BrewWiki.com](#) – Wiki



BeerSmith 3.1 Mobile



- ▶ BeerSmith 3.1 Mobile is Available (Fall 2020)
 - Brings mobile version in line with new V3.1 Desktop changes
 - Alternate pH models, “sparge” grain additions, new dry hop options
 - Support for mead, wine, cider as well as ingredient updates
 - Completely new SQL based storage system to resolve issues with previous web based storage issues
 - Popup menu for improved navigation
 - Click on recipes goes directly to edit
 - Improved timer system



Mixing and Matching Units



- ▶ You can set your own units
 - Tools->Options->Units on PC (Preferences on Mac)
- ▶ You can do unit conversions in any field!
 - Entering “5.3 kg” for grain weight will convert to lbs
 - Also works with temperatures “74 C”, volumes, plato/SG – just about any field
- ▶ You can also do simple math:
 - “10/3” or “5.6+8.2” will be evaluated in place



Using Mash Profiles



- ▶ A mash profile captures the mash step temperatures, times and sparge process
- ▶ Adjusts to fit your recipe when you pick it
- ▶ You can edit or create your own profiles

The screenshot shows the BeerSmith software interface for editing a mash profile. The profile name is "Single Infusion, Light Body, No Mash Out". The temperatures are set to 72.0 F for Grain and Tun, and 168.0 F for Sparge. The Mash Properties are 9.00 lb for Grain Weight Basis, 212.0 F for Boiling Temperature, and 5.40 for Mash PH. A graph on the right shows a temperature profile that starts at 150 F and remains constant for 30 minutes, then drops to 150 F and remains constant for 60 minutes. Below the graph is a table with the following data:

Name	Description	Step Te...	Step Ti...
Mash In	Add 11.25 qt of water at 170.1 F	150.0 F	75 min

Yeast Starter Calculations



- ▶ Built into recipes – mainly for liquid yeast
 - Estimates viability based on “brew” and “yeast pkg date”
 - Estimates yeast cells needed as well as starter size needed to reach target
 - Two stage starters

Brad's English Pale | Design | Starter | Water | Mash | Timer | Session | Notes

Batch Brew Date
Date: 1/28/2017

Name	Lab	Type	Package D...	Viability	Viable Cells	Amount
English Ale	White Labs	Ale	26 Jan 2017	95.33 %	95.33 Billion	2.0 pkg

Yeast Cells Needed
Yeast Cells Needed: 420.2 Billion
Yeast Cells Without Starter: 190.7 Billion
Yeast Packs to Use if No Starter: 5 pkgs

Liquid Yeast Starter Size
Starter Size Used: 4.00 L
Starter Gravity: 1.036 SG
Dry Malt Needed: 13.53 oz
 Use Stir Plate
Yeast Cells with Starter: 403.5 Billion

Starter Volume for One Stage Starter
Recommended Starter Size: 4.28 L

Starter Volumes for Two Stage Starter
Recommended First Starter: 1.75 L
Recommended Second Starter: 2.70 L
 Use Two Stage Yeast Starter

Add starter to bottling vol

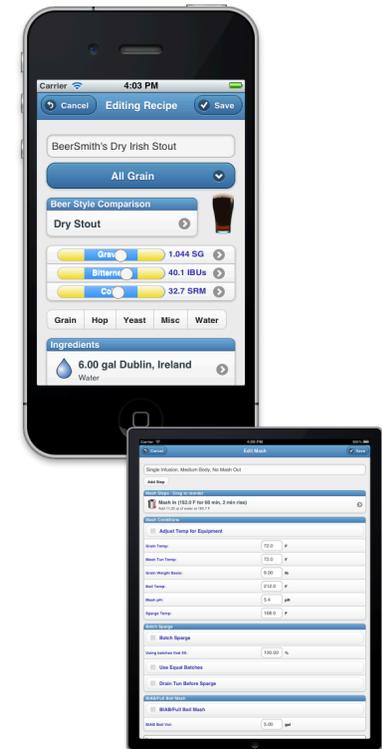
Starter Stage Two
Second Starter Addition: 0.00 L
Starter Gravity: 1.036 SG
Dry Malt Needed: 0.00 oz
Yeast Cells after Second Starter: 403.5

BeerSmith Mobile



► Features

- Brewday Timer (Mash and Boil)
- Local (offline) recipe editing
- Cloud folder recipe editing, lets you share recipes with the desktop
- Editable ingredients
- Equipment, Mash, Fermentation and Carbonation profiles editable
- BJCP Style Guide
- Tools: Hydrometer, Infusion, Attenuation, Mash Adjust, Refractometer, Carbonation
- Unit Converters
- Available through Android, iPhone, iPad and Kindle Fire app stores





Cool Tips/Tricks

- ▶ Shift-click to open anything in a separate window
 - Do side by side comparisons of recipes
- ▶ Use View->Customize Columns to select from over 100 fields you can display in your My Recipes view.
- ▶ You can change Style Guides or add new ones
 - Go to Options->Brewing and set the style guide
- ▶ Options->Reports tab
 - You can add custom reports in HTML or
- ▶ The water profile tool
 - Click calculate best additions to match a target water profile – the program will calculate the best additions
 - A lot more water features coming in 2.3

