5 Resources I Always Use When Designing an All-Grain Recipe

When you are first starting to play around with all-grain brewing it can be overwhelming. How do you choose what malts and hops to use? How about calculating starting gravity? Or alcohol by volume? Or IBUs? While it may seem like too much to try and tackle all at once, you need not fear. There are numerous resources that can answer all of these questions and more. Most are free, while some have a small fee that I found to be worth it. I use most, if not all, of these resources as a professional brewer every time I research a new recipe.

Disclaimer: One of the links is an affiliate link, which means we will get a small commission if you decide to purchase through the link at no extra cost. Although this product was chosen based on quality, for full transparency we have placed an asterisk next to the affiliate link.

BJCP Guidelines

The first thing I do before starting any recipe is to check out the BJCP style guidelines. This is a free resource that you should reference before designing anything, especially if you are new to brewing. The BJCP guidelines are the guidelines used by judges in homebrew competitions. It includes the overall impression of the beer, as well as what the aroma, flavor, appearance, and mouthfeel should be. It also has a little history about the style itself, as well as what ingredients are traditionally used. The link to these guidelines is here.

BeerSmith

BeerSmith has been invaluable to me in my recipe creation efforts. This software requires a one-time purchase for $35 or a subscription plan for $15 a year. The subscription plan receives updates regularly, but I made the one-time purchase on an older version 4 years ago and it still works perfectly. BeerSmith comes with a library of hundreds of malts, hops, and miscellaneous additions and an option to add any ingredients not included. It performs instantaneous calculations as you adjust your recipe to provide you with starting gravity, IBUs, SRM, and ABV. BeerSmith also has a library of beer styles in line with BJCP guidelines and will let you know if your recipe's metrics fit into the style guidelines. I have included the link to their homepage here.

Water Analysis

These next two resources have single handily improved the quality of my beers tenfold. One aspect of brewing that is often looked over among new brewers is the chemistry of your brewing water. It is very easy to get caught up in the seemingly countless varieties of malts, hops, and yeasts. Many homebrew articles gloss over water because it is considered slightly more advanced. Where you get your water from and how it is treated greatly impacts your beer. As little as 1 gram of a specific salt added in a 5-gallon batch can be the difference between a borderline undrinkable beer and a gold medal winner.

The first of these resources, the water analysis, is performed by many companies, but I used the company Ward Laboratories. What caught my eye about them is that they have a water analysis test specifically designed for brewing water. They test for all the major ions, and you can add on additional ions for a slight price increase. The base brewing water analysis kit is $45. They send you everything you need, as well as the shipping label to send the sample back. I have included their link here.

Bru'n Water Software

After receiving your water analysis results, you'll need software to put that knowledge to use. Calculating both ppm and pH adjustments is very difficult, especially if you do not have a background in chemistry. Thankfully, brewing water wizard Martin Brungard developed the software Bru'n Water. This software is free, and you should not brew without it. You can add your water profile to the spreadsheet and make adjustments from there. Martin has programmed it to provide you with ppm calculations for calcium, magnesium, sodium, chloride, sulfate, and bicarbonate. Martin describes what each of these does, and gives you a range for each depending on the beer style. You are also able to add your grain bill and make pH adjustments with acid or acidulated malt. If you have not been monitoring your water, try it out and be amazed at the difference. The link to this software is here.

Craft Beer and Brewing & Other Forums

Especially when you are first starting out, it helps to research a couple of different opinions on what ingredients should go into certain beer styles. One of the best parts about the homebrewing community is that it is so collaborative. There are many forums that discuss all aspects of homebrewing, especially ingredients. Below are a couple of popular forums:

- Homebrew Talk
- Homebrewers Association

- The Homebrew Forum
- Beer Advocate

These are just a few of the many forums. There are also countless posts on Reddit about homebrewing. Until you get comfortable with what your ingredients can do, I highly recommend comparing recipes against each other. On our website in the recipes tab, I describe what the specific malts, hops, and yeast strains are supposed to add to the beer. Not all resources do this, but some will.

We have a How to Brew page that goes in-depth into all parts of the brewing process, but if you are a visual learner that prefers videos, I would recommend taking some of the online learning courses that Craft Beer and Brewing offers. The link below will take you to the online learning portion of their website. They automatically try to get you to sign up for all of their courses, but clicking on the "All Courses" tab will allow you to purchase individual courses that interest you. The courses start at around $30 each.

Craft Beer & Brewing Online Learning*

Final Thoughts

Using the above resources will have you hit the ground running and will completely transform the quality of the beer you brew. If you have been hesitant about making the jump to designing your own recipes instead of using pre-made ones, I hope the above resources ease your worries. We continue to post new recipes and techniques to our website, so if you have a question that we have not answered, please feel free to send us a message at brady@thebeerjunkies.com and we will answer it with a post as soon as possible. Cheers!