



The Wort Alert

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Newsletter for Hop Barley and the Alers Homebrew Club, Boulder, CO

<http://hopbarley.org>

President's Corner

Ryan Thomas

I'd like to start this month by saying a big Thank You to everyone for helping to make the 20th annual Dredhop competition the best yet. The competition was a great success, and everything went very smoothly. Bob Kaufman did a tremendous job as always coordinating the competition.

Our meeting this month will be the 24th at the Masonic Lodge. Orange group will be arriving early for setup and cleanup, Red group will bring beer and Green group food. If you haven't been assigned to a new group this year then go with your 2008 group and see Deb for a new group.

This month we have the brewers from Del Norte Brewery speaking to us about lager fermentations. They are one of the few craft breweries that focuses exclusively on lager beers, so this should be a great opportunity to learn from the pros. Bring your questions and learn how to ferment on the cold end of the thermometer.

A Beer Judge Certification Program exam study group is starting Monday the 23rd at 5:30 at the Left Hand tasting room in Longmont. The exam is scheduled for August 15th. If you are interested, try to attend at least the first study session to make sure you get a reserved spot in the exam. There are a limited number of seats, and they are filling up fast.

Coming up in April is the 5th (somewhat) Annual Front Range Homebrew Club Rendezvous. This will be April 18th at the Great Divide brewery from 3-6pm. This is a great opportunity to meet other homebrewers and learn about what the other area clubs are doing.

We are also in the process of arranging for a tour of the Pilot Brewery at Coors. This is a 25 barrel system (larger than most micros) where Coors perfects new recipes. Those of you who attended the NHC in Denver two years ago may have heard Dr. Keith Villa (the Beer Doctor) speak about the use of adjuncts. He is the head of product development for Coors, and runs the pilot brewery. The original tentative date of May 1st has a conflict with the AHA's annual rooftop party, so we will be discussing alternate dates at the meeting. If you have a preference for a Monday or Friday date please let us know.

Thanks for being a part of the club, and I hope to see you Tuesday at the meeting.

Cheers!

Ryan

Vice President's Corner

What Does Math Have To Do With Beer?

By Matthew Anderson

About a year ago I was talking with my friend Chad, who's a great extract brewer, about specific gravity. He told me he never checks the specific gravity of his beers. And when I asked why he said, "Yeast can't do math so neither do I." Since Chad makes some great beers I decided to just accept it and we continued enjoying our delicious homebrew. But if you want to start developing your own recipes for specific styles, you'll eventually have to start measuring specific gravity and calculating the amount of malt extract you're going to need and that's what this month's article is about.

Malt extract comes in two forms, Liquid Malt Extract (LME) or syrup and Dry Malt Extract (DME). Both forms are simply concentrated wort, but LME is about 20 percent water and DME has all the water removed. For this reason five pounds of LME is about the same as four pounds of DME. If you want to make a recipe of your own, one of the first steps is to figure out how much malt extract you're going to need. This isn't too terribly difficult, but you will have to dust off those high school algebra skills and familiarize yourself with a concept known as **Extract Potential**. LME has an extract potential of about 1.038 and that means one pound of LME added to one gallon of water will give you wort with a specific gravity of about 1.038. DME has an extract potential of about 1.045 and that means one pound of DME added to one gallon of water will give you wort with a specific gravity of about 1.045. To figure out how much malt extract is required for a new recipe, you'll need to plug three variables into the following formula:

Three Variables:

GW = Desired Gallons of Wort (a.k.a. How much beer do you want?)

SG = Desired Specific Gravity (a.k.a. How strong do you want your beer to be?)

EP = Extract Potential

Required Malt Extract Formula:

$(GW) \times ([SG - 1] \times 1,000) \div ([EP - 1] \times 1,000) = \text{Required Pounds of Malt Extract}$

Liquid Malt Extract (LME) Example:

Five Gallons of Algebra Amber Ale with a Specific Gravity of 1.050

$$\begin{array}{rcl}
 (5.00 \text{ GW}) \times ([1.050 \text{ SG} - 1] \times 1,000) \div ([1.038 \text{ EP} - 1] \times 1,000) & = & ??? \text{ Pounds of LME} \\
 (5.00 \text{ GW}) \times (50) & \div (38) & = ??? \text{ Pounds of LME} \\
 (250) & \div (38) & = 6.58 \text{ Pounds of LME}
 \end{array}$$

Dry Malt Extract (DME) Example:

Five Gallons of Algebra Amber Ale with a Specific Gravity of 1.050

$$\begin{array}{rcl}
 (5.00 \text{ GW}) \times ([1.050 \text{ SG} - 1] \times 1,000) \div ([1.045 \text{ EP} - 1] \times 1,000) & = & ??? \text{ Pounds of DME} \\
 (5.00 \text{ GW}) \times (50) & \div (45) & = ??? \text{ Pounds of DME} \\
 (250) & \div (45) & = 5.56 \text{ Pounds of DME}
 \end{array}$$

In addition to hitting your desired specific gravity, there are a few more malt extract variables you can take into consideration. First, LME typically contains bittering hops and DME does not. If you're using LME you can cut back on the bittering hops you need to purchase. Next, malt extracts are available in pale, amber and dark varieties. Lighter malt extracts tend to be more fermentable and darker malts extracts less fermentable. By selecting the variety appropriate for the style you want to brew, you can control how dry or sweet your beer turns out. When I was younger I couldn't wait to get down with school so I wouldn't have to solve all those meaningless formulas in math class. How ironic that all these years later, I use math all the time for one of my favorite things . . . brewing tasty beer.

Bibliography

Daniels, Ray, *Designing Great Beers: The Ultimate Guide to Brewing Classic Beer Styles*, pp. 11 - 18 & 31.

Palmer, John, *How to Brew*, <http://www.howtobrew.com/section1/chapter3.html>

Upcoming Club Events

- Tuesday, March 24 at 7pm: monthly HBA Club Meeting at Masonic Lodge in Boulder
- First Friday Out--There might be several this month. Look for more info at the web site. First Friday of April coincides with AHA Rally at New Belgium in Ft. Collins.
- May ???, Coors Pilot Brewery Tour
- Saturday, May 2: HBA joins Indian Peaks Alers (IPA) and the Keg Ran Out Club (KROC) at CB & Potts in Broomfield for AHA Big Brew.

Monthly Meetings

Our monthly club meetings are the 4th Tuesday of every month at 7pm. We meet at the Masonic Lodge, located on the corner of Pine and Broadway, Boulder, Colorado 80303. Additional parking is available at the Lutheran Church.

Each month color groups coordinate beer, food, and setup/cleanup.

Monthly Meetings (4th Tuesday)--Who's Doing What and When

Day	3/24/2009	4/28/2009	5/26/2009	6/23/2009
Red Group	Beer	Relax	Food	Setup/Cleanup
Orange Group	Setup/ Cleanup	Beer	Relax	Food
Green Group	Food	Setup/Cleanup	Beer	Relax
Blue Group	Relax	Food	Setup/Cleanup	Beer

Color Groups – Please bring your recipe along with your beer and tell us about it!

Color groups please coordinate food and beer.

One brew per group will be reimbursed. The brew should be in the style of the month.

Food will be reimbursed for up to \$75. Please see the treasurer in an unusual circumstance.

Bring in your receipts to be reimbursed by the treasurer.

Monthly Beer Styles

March – Historical styles

April - Extract-based beers*

May - Second runnings; Bocks

June - Pilsners/Light lagers

July - Amber hybrid*

August - European Amber Lagers*

September - GABF so no judging

October - Belgian strong ales*

November - Cider

*Club only competitions (see http://www.beertown.org/homebrewing/club_only/)

Announcements

- *Don't forget to renew your memberships!* We will be accepting payments at the Tuesday club meeting.
- New color groups are here!

Upcoming Beer Events

- Friday, April 3: AHA Rally at New Belgium Brewing Co. Fort Collins, Colorado: <http://www.beertown.org/email/aha/rallies/newbelgium09.htm>
- Saturday, April 18 3-6pm: Annual Front Range Homebrew Club Rendezvous at the Great Divide brewery
- Friday, May 1, AHA Annual Rooftop Party
- May ???, Coors Pilot Brewery Tour
- Saturday, May 2: National Homebrewer Day and AHA Big Brew: <http://www.beertown.org/events/bigbrew/>
- Saturday, June 9: Rocky Mountain Brew Fest at Estes Park Brewery: http://www.epbrewery.com/afis-festival-bere2007_ok_mic.jpg
- June 18-20: National Homebrewers Conference (NHC) at Oakland Marriott City Center: <http://www.beertown.org/events/hbc/index.html>
- June 27-28: Colorado Brewfest in Downtown Fort Collins: <http://downtownfortcollins.com/festivals.php/brewfest>
- July 11: 13th Annual Colorado Brewers Rendezvous at Riverside Park, downtown Salida: <http://www.salidachamber.org/events/Events-July-2009.html>
- August 1: AHA Mead Day: <http://www.beertown.org/events/meadday/index.html>
- September 19: Telluride Blues & Brews Festival at Telluride Town Park: <http://tellurideblues.com/index.html>
- September 24-26: Great American Beer Festival at Colorado Convention Center, Denver: <http://www.beertown.org/events/gabf/index.htm>