



The Cellar

The Official Newsletter of the
Colonial Ale Smiths & Keggers

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Visit CASK on the web for the latest news, photos, recipes and updates: <http://www.williamsburgbrewing.com/CASK>

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Iron Brew 2004

by Harrison Gibbs, CASK President

Fukia-san, the stage is set, the kettles are hot, and all participants are ready to find out - who will be titled the Iron Brewer!

As something different, CASK will be celebrating National Homebrew Day by holding an Iron Brew. Instead of the suggested recipes provided by the American Homebrewer Association, all CASK members are encouraged to try their best in creating a great beer. The twist is, all beers will include on chosen ingredient to be revealed the day of the Big Brew.

All ingredients work well in all-grain and extract batches, so there are no excuses. One of these will be the secret ingredient. This should give everyone a chance to come up with a few ideas. However, the secret ingredient will not be revealed until the morning of the Big Brew.

After the yeast is pitched and the kettles scrubbed, we will sample this year's Iron Brews at the SummerParty this July. Big Brew from the official May 1, 2004.

And now the possible ingredients, unveiled:

- ▶ Honey
- ▶ Coffee (Beans and Flavorings)
- ▶ Coriander/Orange Peel/Cardoman/Grains of Paradise
- ▶ Yakima Magnums (15% AA hops)
- ▶ Cherry or Raspberry Fruit Concentrate

CLUB NEWS

March Meading

by Tim Jones

It's really not *all* about beer, is it? I mean, other fermented beverages have a place in our hearts too, even if it is a smaller one. But Mead, now mead is a thing unto itself. At the March meeting, CASK members were treated to a variety of meads. Since there are several different styles of mead and variations thereof, not a one tasted like another. Most CASKers enjoyed meads, though the sweetness (it is fermented honey, you know) was a bit much for some. Never fear, homebrew was near, as always is the case.

Congratulations go to Harrison Gibbs for his still mead, made from 100% blackberry honey, traveling to the May Club Only Mead Competition. Speaking of Mead Competitions, don't forget about the upcoming event hosted by our neighbors to the south:

May 15, 2004

May Mead Madness New Bern, NC

Contact: Richard Weiss phone: 252-636-8970

email: brewinbruin@hotmail.com

website: <http://www.homebrewhaus.biz/>

Quote of the Month

"Mankind: The animal that fears the future and desires fermented beverages."

— Jean-Anthelme Brillat-Savarin

THE CELLARMASTER

by Greg Beron, guest Cellarmaster
Culver City Homebrew Supply Company

Hopping on the Bandwagon: Brewing Low-carb Beers

With so much attention on low-carbohydrate diets lately, it's no surprise that the big breweries have come out with low-carb beers. The only problem is that these beers are as flat, watery and lifeless as their regular beers. Wouldn't it be nice if you could make your own low-carb versions of your favorite recipes? Well, you can and it's not as hard as you think. While the approach outlined in this article is oriented towards the all-grain brewer, there are still a few concepts that extract brewers can employ.



The first thing you need to know is that alcohol itself contains no carbohydrates, so there's no need for a low-carb beer to be weak. In fact, if anything, a low-carb beer will have a little more alcohol than a "regular" beer of the same original gravity. Carbohydrates in beer take the form of unconverted starches and residual (ie. unfermentable) sugars. What this means to brewers is that a low-carbohydrate beer will be a product of technique as much as ingredients. But since making beer always starts with a recipe, let's look at ingredients first.

Your recipe should contain a minimum of grains that contribute unfermentable sugars and starches. This means that crystal malts should be used sparingly. Small amounts will probably be necessary, but keep in mind that the more you use, the more carbohydrates will end up in your finished beer. Other than that, your choice of grains is pretty much unlimited. Hops, of course, contribute no carbohydrates so there's no reason to be afraid to use them (unlike the big breweries).

The mash is the next, and most important, area where we can influence the percentage of unfermentable sugars in our final product. Conversion of starches to sugars is accomplished by the activation of two different enzymes: alpha-amylase and beta-amylase. Of the two, we want to concentrate on beta-amylase because alpha-amylase produces a more dextrinous wort and dextrines are just another word for unfermentable sugars. Luckily, the two forms of amylase enzymes are activated at different temperatures. Beta-amylase is activated at temperatures between 140 and 155 degrees F so our mash needs to be conducted below 150 F for maximum fermentability. We also want to make sure that

conversion is as complete as possible, so plan on a long mash of 90 - 120 minutes. Once conversion is complete, it's also important to conduct a mash-out at a temperature of 165-170 degrees, making sure to move the mash through the beta-amylase temperature range of 155-162 as quickly as possible. A fast sparge is also helpful. If you've ever brewed a no-sparge batch, you should realize that the technique is almost tailor-made for these requirements.

Finally, you should choose yeast with a high attenuation rate, to ensure the maximum possible conversion of sugars to alcohol and give it enough time to do its work. Adding some yeast nutrient at the end of the boil probably wouldn't hurt, either.

By following all these suggestions, it should be easy to make a beer that's not only low in carbohydrates, but is satisfying and enjoyable to drink. Isn't that what making your own beer is all about? ■

What's low carb?

Government will set standards for beer labeling

Apr 9, 2004 - A division of the U.S. Treasury Department plans to set advertising and labeling standards for low-carbohydrate alcoholic beverages, which have become increasingly popular as Americans turn to the Atkins, "South Beach" and other low-carb diets.

The Alcohol and Tobacco Tax and Trade Bureau set interim standards for the use of terms such as "low carbohydrate." A beer must have less than 7 grams of carbohydrates to be labeled or advertised as such. It said a product may be labeled as containing "reduced" or "lower" carbohydrates if it includes more than 7 grams of carbohydrates but less than the regular version of the product.

These rules won't be a problem for beers such as Michelob Ultra, Aspen Edge from Coors or Miller Lite (which has begun to advertise its low-carb status). Michelob Ultra contains 2.6 grams in a 12-ounce bottle, as does Aspen Edge. Miller Lite has 3.2. In fact, Bud Light has 6.5 and Coors Light 5.0.

A "regular" beer, such as Budweiser or Coors, generally contains 10-13 grams of carbohydrates. Craft, or microbrews, sometimes contain a few more carbs. New Belgium Fat Tire, for instance, has 13.7, Pete's Wicked Ale 17.7, Redhook ESB 14.2 and Sierra Nevada Pale Ale 12.3.

The new standards also would prohibit statements claiming that low-carbohydrate alcoholic drinks may play a healthy role in a diet. The bureau said it plans to set permanent standards on the issue in the near future. ■

— Taken from www.realbeer.com. Used with permission

BEER STYLE: Extracting Great Beers

by Tim Jones

For most homebrewers, malt extract was the pathway into this great hobby, and for many, it still guides the way. And why not? Extract, both liquid and dried, produces some fantastic beers—award winning beers, even.

Some “all-grain” elitists insist extract can’t come close to the beers their \$4,000 plus systems produce consistently. This may be true on some level, but the fact remains—extract can be the foundation for some great beers, if used properly, and used to its fullest potential.

So what is malt extract? Brace yourself—it’s a concentrated form of extract derived from malt. Really, it’s that simple. Grains are mashed the same way any brewer would, and the resulting extract is then put through a vacuum dryer that sucks out water from the extract, leaving concentrated, dehydrated malt syrup. Dried malt extract results from a higher degree of water removal. The stuff is cooled, packaged, and delivered to your local homebrew supplier, ready to receive your brewing ingenuity.

Quick sidebar, Prohibition was pretty tough on the large American breweries, and some, Pabst for example, survived by focusing energy on producing malt extract. Cleverly labeled as a “dietary supplement” Pabst sold tons of the stuff in food markets to those interested in taking beer into their own hands.

Back to the here and now. Malt extract gives brewers several advantages, depending on your interpretation of an advantage. First, it’s a whole lot faster to brew an extract batch than it is to brew an all-grain batch.

Secondly, the equipment required for an extract batch is significantly less expensive, less obtrusive, and generally easier to store than an all-grain setup.

Third, it’s much easier to brew extract than all grain or even partial mash. I distinctly remember one of our favorite homebrew store owners telling folks, “If you can boil water, you can make beer.” It’s true. Extract brewing requires less effort, time and equipment, and the results often rival all-grain beers.

But that’s not to say that extracts don’t present some problems. Control is an issue for one. Brewers are reliant on the extract manufacturers’ mashing schedule—rests, temperatures, etc.—which limits the degree to which brewers can customize the idiosyncracies of their beers. The good news is malt extracts from different manufacturers produce different tastes in beers.



There’s room to experiment, blend brands, and even snag regionally authentic syrups and dried malt for those British Bitters, German Alts, and others.

Then there’s the recommended option of using specialty grains, such as caramel, chocolate, roasted barley, etc., to return some of that control to the extract brewer. If malt extract is used simply as the base of a recipe, the rest can be up to the brewer. Steeping is simple. The easiest method is to get a mesh grainbag, fill it with your crushed specialty malts, and add it to about 2 gallons of water and remove the grain bag when the temperature pushes 170 F degrees. Another method is to add the grain bag to 150 F water and let it sit for about 30 minutes. Don’t steep above 170 F as you’ll get a pretty tannic beer, and don’t steep in too much water, or you’ll get the same result (pH, etc....too much explanation).

There’s also the option of partial mashing, or using a small portion of base malt grains, mashing them, and then adding extract for the remainder of the beer. Usually a precursor to all-grain brewing, this gives an added dimension of control and customization. Food for thought.

To make the best of your extract brews, it’s smart to at least use specialty grains for color and flavor. Stick with extracts simply for the base of the beer. You can by hopped extracts, but these take out more control, so take the power back and hop the beers yourself.

Another thing to remember when using extracts is to boil them, regardless of what the can or bag says. They need it. But, by the same token, be aware that boiling will darken your wort (and consequently the resulting beer) even moreso than happens with all grain. The concentration of the extract plays a factor in this, so don’t be surprised if your extract Pils comes out darker than you had hoped.

Wort concentration also plays a factor in hop utilization—the more concentrated, the lower the hop utilization, so don’t be afraid of the green cones.

When you add the extract syrup or dry, make sure you’re pot is off of the heat source. Boy will the liquid stuff scald...you’ll have a nice caramel-colored sugar cake at the bottom of your pot if you’re not careful. Stir in until dissolved, then return to heat.

Fermentation for extract beers is the same as other beers. Most extracts provide anywhere from 70-80% fermentables, so your yeast has plenty of goodness to work with.

All in all, extract is a great way to brew beers. After several all grain batches, making an extract batch is sometimes what I need to remind me of why I got into this hobby in the first place—to make better beer than I could buy. And extract is the easiest way. ■

All-Grain to Extract Conversions

by Tim Jones

Ever want to brew a recipe you've seen in a magazine, online, or even in *The Cellar*, but it was one of those annoying "all-grain" recipes, and you're just not up for it? Well there's good news. You can recreate those recipes to a close approximation without buying the mash tun.

Every all-grain recipe has a base malt, or a malt that makes up the majority of the grist. This is where



NO BULL - Extracts like John Bull make great beers

you start. Say a recipe calls for 8 lbs. of pale malt. You can substitute your favorite brand of light or extra light liquid or dry malt for this base or for a portion of it. Calculate the substitution with some simple math: For every pound of base malt to be replaced by extract, you'll need to substitute 0.75 lbs. of liquid extract, or 0.60 lbs. of

dry extract. Using 8 lbs. for an example calculation, you would need 6 lbs. liquid extract or 4.8 lbs. of dry extract.

A best-case scenario would leave in as much actual grain as your brewing system can handle, so if you only want to substitute a portion of the base malt, make the appropriate calculations.

You can mix and match liquid and dry extract too, to make the available pre-packaged quantities more accessible. For example, liquid malt often comes in 3.3 lb cans. Using reverse math, 3.3 lbs. liquid would be 4.4 lbs. of actual grain. (3.3 divided by 0.75 = 4.4). Get it? So, if the all grain recipe calls for 8 lbs. of pale malt, you could replace 4.4 lbs. of the 8 total pounds of grain with one 3.3 lb. can of liquid malt. That leaves you with (8 - 4.4) 3.6 lbs. of grain to convert. If you want to make up that with dried malt, you would use 3.6 x 0.60 to get 2.16 lbs. of dried malt. Simple stuff, right? Hey, if an English major can do this math, I'm certain that any one can.

The rest of the recipe, specialty grains, etc, you can keep the same. Steep those in water before adding the extract, and you're good to go. Partial mashes are helpful too, as they tend to give the beer a little more depth of character than extract alone. Without going into much detail on partial mash techniques (that's another column), there are a few basic rules when deciding how much grain to replace with extract in a recipe. Beers with high percentages

of malts like Vienna and Munich are extremely difficult to emulate without brewing all-grain, or at least mashing a significant portion of the recipe. Generally, the darker and bigger beers, stouts, porters, barleywines, etc., will do well with a high percentage of extract. Lighter, more delicate beers and beers with a signature complex maltiness are difficult to do with extract alone. Remember that extract beers tend to be darker than their all-grain counterparts. If you're shooting for a light beer, use a very light extract. Alexanders is one of the lightest.

But, when you do use extract, use brands that fit the style of beer you're brewing: British brands for English beers, German for German, etc. It really helps. (see table below) The more familiar you are with the subtleties of each extract brand, the better you'll be able to substitute for each recipe.

The good news about converting recipes is that even if the beer is a little darker or has a little less malty complexity, it will almost undoubtedly be much better than anything you could buy. So brew on! ■

The best extract for the job

- ▶ **U.S. 2-Row — Alexanders, Northwestern**
- ▶ **U.S. 6-Row — Breiss DME**
- ▶ **German/Continental Lager — Beirkeller**
- ▶ **German Ales — Ireks**
- ▶ **British Ale — Edme, John Bull, Munton&Fison**

All of these malt extracts are extremely high quality and readily available depending on your distributor. When substituting extract in an all-grain recipe, use only unhopped extracts. For best results, mash and/or steep specialty grains appropriate for the style of beer you wish to make.

2004 Monthly Beer Styles

Plan your brewing year now and hit as many club-only and other competitions as possible. Brewer of the Year anyone?

- April** – Extract Beers* (May COC)
- May** – Schwarzbier and Dunkels
- June** – Wheat Beers* (August COC)
- July** – Summer Party
- August** – Pilsners
- September** – Smoked Beers* (Sept/Oct COC)
- October** – Homemade Wine
- November** – IPAs* (Nov/Dec COC)
- December** – Free for all

Recipes of the Month

In honor of the upcoming Extract Club Only competition, here are three recipes for extract based beers. Try them out and prove to yourself, and your friends that extract really can make outstanding beer.

Familiar West Coast Pale Ale

Your friends won't be able to tell the difference between this and the other original.

Ingredients:

- 8 oz. caramel malt, 30° Lovibond
- 6 oz. DeWolf-Cosyns cara-pils malt
- 6 lbs. light malt syrup
- 1.5 oz. Perle hops (8.2% AA) for 60 min.
- 1 oz. Cascade hops (5.4% AA) for 15 min.
- 1 oz. Cascade hops for 5 min.
- 0.5 oz. Cascade pellets (dry hopped)
- Wyeast 1056 (American ale)
- 1 1/4 cup dry malt extract (for priming)

Step by Step:

Add grains to 1.5 gal. water. Bring slowly to 170° F. Remove grains and bring to a boil. Total boil is 60 min. Boil 10 min. and add Perle hops. Boil 45 min. more, adding water as needed to maintain liquid level. Make first Cascade addition. Boil 5 min. more. Turn off heat. Wait 10 min. Add 1 oz. Cascade. Wait 3 to 5 min. Remove hops and transfer to fermenter. Top up to 5 gal. Pitch yeast at 70° F. Ferment three days and rack to secondary. Dry hop with 0.5 oz. Cascade pellets. Ferment two weeks at 65° F. Prime and bottle.

Dry Wheat Beer

Ingredients:

- 6.6 lbs. Ireks 100% wheat malt extract
- 1 lb. dry rice extract
- 2 oz. Hallertauer whole hops (3.2% alpha)
- 1/2 tsp. Irish moss
- Liquid Wyeast #3068 (Weihenstephan)
- 3/4 cup of corn sugar

Step by Step:

While the can of malt extract is sealed, heat for 15 minutes in 1 gallon of 150° F water (removed from burner) to make it easier to pour. Bring 2 gallons of quality bottled water to a boil. Add wheat malt extract and dry rice extract, stirring constantly to keep from scorching. Bring wort to a boil for 15 minutes. Add 1 oz. hops. Boil for 15 minutes. Add remaining hops. Boil 15 more minutes. Add kettle coagulant and boil another 15 minutes. Remove from heat and cool to about 150° F. Add wort to primary and bring total volume to 5.5 gallons with pre-boiled, room-temperature water. Pitch the yeast. It is critical that you use Weihenstephan; do not substitute any other. Ferment in primary for three days. Secondary fermentation is usually complete in five to seven days. Prime with corn sugar. Leave bottles at room temperature for two weeks. Place in refrigerator for four to six weeks. This will remove the chill haze common to wheat beers. This beer will mature over eight to 10 weeks.

Revolutionary India Pale Ale

Although the hop bill is of rather mixed heritage, this recipe delivers very nice flavor. Winner of the Chicago Beer Society club only Pale Ale competition in 1990.

Ingredients

- 6 lbs Munton & Fisons Light Malt Extract Syrup
- 2 lbs Pale Ale Malt
- 0.5 lb Crystal Malt
- 1 oz Galena - boiled 75 minutes
- 0.25 oz Tettnanger - boiled 20 minutes
- 0.25 oz Fuggie - boiled 10 minutes
- 0.5 oz Cascade - boiled 2 minutes
- 1 ounce of Burton Water Salts
- Wyeast British Ale Yeast

Procedure Notes:

Total boil time was 90 minutes with the hop additions beginning after 15 minutes of boiling had already occurred. Add hops according to the schedule shown above. Ferment at 65-70 deg F.

O.G. 1.062 F.G. 1.014

CALENDAR

Of Club Events and Competitions

April 2004

Category 25 Mead

Hosted by Pete Devaris and the Great Northern Brewers of Anchorage, AK.

April 14-17, 2004

Association of Brewers Craft Brewers Conference

San Diego, CA
Host to the World Beer Cup.

April 17, 2004

The Dominion Cup

Richmond, VA
Hosted by the James River Homebrewers. See pg. one of this newsletter for more information, or visit the JRHB website at <http://www.jrhomebrewers.org>

April 24, 2004

U.S. Open, Charlotte, NC

contact: Gary Cathey
phone: 704-634-7648; email: garyc3@aol.com
website: <http://hbd.org/cbm/>

April and May 2004

National Homebrew Competition 1st Round
Regional Sites across, the states.

May 2004

Extract Brews

Entries Due May 13, 2004
Judging will be held May 20, 2004
Hosted by Terrence Garland, Kent Brown and the Bluff City Brewers of Memphis, TN.
Open to any of the BJCP beer categories. All entries must include malt extract in the recipe.

May 1, 2004

CASK Presents — Iron Brew 2004

In celebration of National Homebrew Day, CASK will be holding an "Iron Brew" competition featuring a theme ingredient that must be used in all brews. Iron Beers will be served at the Summer Party, and a winner will be selected.

May 15, 2004

May Mead Madness New Bern, NC

Contact: Richard Weiss phone: 252-636-8970
email: brewinbruin@hotmail.com
website: <http://www.homebrewhaus.biz/>

June 12, 2004

2004 Spirit of Free Beer Ashburn, VA

At Old Dominion Brewing Company in Ashburn, VA. For another year we will be a qualifying event for the prestigious Masters Championship of Amateur Brewing (MCAB). All BJCP recognized styles including meads and ciders are eligible for entry. First entry is \$6.00, subsequent entries are \$5.00 each. Contact Judge coordinator Bill Newman at newman@burp.org.

June 17-19, 2004

AHA National Homebrew Competition

Las Vegas, NV
Contact: Gary Glass phone: 888-U-CAN-BREW x 121; email: gary@aob.org, website: <http://www.beertown.org/events/nhc/index.html>

June 17-19, 2004

"Beer and Loafing in Las Vegas"

AHA 26th Annual National Homebrewers Conference
Las Vegas, NV
Homebrewers gather to visit old friends, meet new people and drink homebrew made by homebrew clubs across the United States. Harrison went 2 years ago and he describes it as a beer spectacular. Visit www.beerandloafing.org for more information.

July 2004

American Beer Month

Did you know that there are over 7,000 brands of beer brewed in the United States? America has a beer tradition that goes back to the earliest days of American history to celebrate with good American brewed beer. Maybe your own?

August 2004

Wheat Beer

Hosted by Drew Beechum and the Maltose Falcons of Woodland Hills, CA.
Category 17 Wheat Beer

September/October 2004

Smoked Beer

Hosted by Jay Adams and the Mountain Ale & Lager Tasters of Ashville, NC.
Category 23 Smoke-Flavored Beer

November/December 2004

IPA

Hosted by Joel Trojnar and the James River Brewers of Richmond, VA.
Category 7 India Pale Ale