



THE BEVERAGE PEOPLE

2013 Spring Newsletter and Catalog

PS: It's time to place orders for your 2013 Hop Rhizomes. See back page for varieties and price.

SMALL BATCH BREWING

HOW TO BREW 1, 2 & 3 GALLON MINI BATCHES OF BEER

by Emily Harvey

Most home brewers brew five or ten gallon batches of beer. This makes a lot of sense because you get a substantial volume of beer when all is said and done. However, more and more home brewers are realizing the benefits of small batch brewing. When I first started brewing in a small apartment, I quickly realized the downfall of brewing five gallon batches. I had carboys fermenting in my tiny kitchen and cases of bottles stacked in the dining room. Having company over to enjoy the beer wasn't an option with space so limited! That was when I started looking into small batch brewing.

BENEFITS

Small batch brewing is essentially brewing one, two or three gallon batches. There are many benefits to this type of brewing, particularly if

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Stretching Your Mash Mileage

by Joe Hanson-Hirt

My favorite style of beer to brew and drink is IPA. I love a good aromatic and bitter beer. As old recipes become dialed in and new ones are created, I have noticed an unconscious trend towards the production of higher and higher gravity worts. This is, of course not a problem, but it makes it hard to sit down and have a few of them. I wanted to keep my big IPAs, but I needed a smaller session brew to balance it out. And so began the partigyle experiment.

Partigyle brewing is the name for the technique of producing multiple brews from a single mash. This is usually accomplished by separating the sugar dense first runnings from the lower gravity second runnings during the sparge. By doing so, one can produce a high gravity beer and a low gravity small beer from only one mash. Today, partigyle brewing is not as common

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2012 saw the successful completion of our move from the store we called home for 31.75 years to our spacious new home with improved store layout, storefront and parking. Thanks to all of you for the support you continue to show for what we are doing as it is fueling continued growth allowing us to bring more supplies and knowledge to you. We plan to be your mecca for homebrewing information and supplies for the next 31.75 years and hopefully beyond.

Bob, Nancy, Emily, Joe, Kimi, Gabe, Kathy, Hunter and Mike.

BEER - IT'S WHAT'S FOR DINNER

by Kimi Wilkinson

Beer- it's not just for Homer Simpson and his "Duff" beer anymore. Today, you can go to almost any market or liquor store and choose from a wide array of local, flavorful craft brew. As Bob tells me - when he was my age he only got to choose between American light lagers or imports. Whoa. Aren't you glad it's 2013! The diversity from which we get to choose a beer is great, but it's not just for drinking on its own.

A more recent evolution, is the idea of cooking and pairing food with beer. Beer lends variety, complexity, crispness and depth, which are all great things when it comes to pairing food with a beverage. It also makes it great to cook with. I know from personal experience as a restaurant server and bartender that this concept was not widely accepted. Customers who wanted to match a beverage with their meal were consistently looking for a red or white wine to go with it. I remember the very first time someone asked me to pair a beer for them, because it was an uncommon request. He was ordering a braised pork shoulder dish, with a rich and heavy squash risotto. I recommended he try *Pliny the Elder Double IPA* with it, because the high hop bitterness and crispness would cut through that fattiness and balance the sweetness of the pork and squash. He told me it went great together. From then on I was on a mission to convince all my customers that beer was the new wine!

My partner in crime and I, another server named Angelina,

would try to sell 750mL bottles of beer for the table to share (like the *KleinBrouwerij De Glazen Toren Belgian Tripel*). That was a little bit harder. But everytime we did we felt like we were really helping someone discover a new love for beer.

Luckily for me and my friends, chefs and restaurateurs have caught on to this new trend by offering Beer Dinners. You can catch a local event like this at *Woodruff's Café*, on Gravenstein Hwy in Sebastopol. Dave Woodruff, a longtime homebrewer and chef owner of the café, does a wonderful job of highlighting flavors in both the food and the beer in his pairings. I have had the joy of attending one of their Beer Pairing dinners, where my favorite combo was the Summer Peach Cobbler dessert with *St. Louis Pêche Lambic*. It was peach heaven. You can find more information on *Woodruff's Café* dinners on Facebook.

Creating your own beer pairing dinner can be fun and easy, especially with your own homebrew. There are a few things to keep in mind. It's best to start with the characteristics of the food itself, and then choose a beer to go with it rather than the other way around. It's really all about highlights and accents. For example the bitterness and roastiness in beer nicely balances sweetness and richness in food. Alternatively, the sweetness and maltiness in a beer will mellow spiciness and acidity in food. Feel free to experiment. Note that barleywines tend to not go well with much of anything, as their intense flavors tend to mask any other flavors. Sip these as an after dinner digestif.

An easy pairing is salty foods with a hoppy beer. Like mustard flavored pretzels and a Czech Pils. The crisp carbonation, hoppy bitterness

Beer Pairing continued see pg. 4

you are short on space.

Benefits include:

- Saving space
- Lowering startup costs
- Utilizing kitchen equipment
- Speeding up the brewing process
- Ease of recipe experimentation
- Use of specialty ingredients
- Having a wide variety of beers to enjoy
- Easily moving up to all-grain brewing

SUPPLIES

So what do you need to get started brewing small batches? Fortunately, most of the supplies needed are already in your kitchen, which seriously cuts down on startup costs! For example, when I brew a three-gallon extract recipe I use the electric stove in my apartment kitchen and a small canning kettle for the boil. I use saucepans for the mini-mash and a colander lined with cheesecloth to sparge the grains. Once I finish the boil, the only specialized equipment I use includes a cleaner, sanitizer, fermentation bucket, three-gallon carboy, fermentation lock, stopper, and siphon assembly.

If you're new to brewing, you can get setup brewing small batches with a slight modification to our Standard Equipment Kit. Instead of getting the five-gallon carboy that comes with the kit, request a three-gallon carboy. With a slightly modified Standard Equipment Kit, you'll be brewing three-gallon batches in no time!

I'm partial to brewing three-gallon extract recipes because they are an excellent way to make a decent volume of beer in a small space and they brew up quick. A three gallon keg (see next page) is a great way to have beer on tap, yet is small enough to fit inside most small refrigerators! For these reasons most of my everyday drinking beers are brewed in three-gallon batches.

SCALING DOWN EXISTING RECIPES

It's very easy to convert a five-gallon recipe to a three-gallon recipe. The following volume ratio chart provides the factor necessary to multiply time the original volumes for all ingredients.

Original 5 gallon recipe is listed below.

"Poleeko Gold" Pale Ale Recipe (EX5)

5 lbs. Light Dry Malt Extract

8 oz. Caramel 20 Malt

8 oz. Carapils Malt

0.75 oz. Chinook Hop Pellets (60 minute) 33 IBU

0.75 oz. Cascade Hop Pellets (15 minute) 10 IBU

0.75 oz. Perle Hop Pellets (dry-hopped) 3 IBU

Wyeast 1968: London ESB Ale

OG 1.049

IBU: 46

Volume Ratio Chart

1 gallon = 0.2

2 gallon = 0.4

3 gallon = 0.6

4 gallon = 0.8

5 gallon = 1

10 gallon = 2

Scaling down is simple. Just make sure you multiply by the appropriate volume ratio. In this case, since we want to convert to a

three-gallon recipe, we will multiply by 0.6. Keep in mind that you can round up!

Important note: Whenever you are using an existing recipe, the hop additions will need to be adjusted to the current alpha acid listed on the hop package. Seasonal differences from year to year will change the alpha acid of the crop. For the hop IBU calculation, see pages 30-33 of **Brewing Quality Beers**, Burch, the **Brewing Calculations Chart** from Joe's article; **Stretching Your Mash Mileage** in this newsletter, grab one of our brewing magnets when you are by the store or see chart pg. 3.

So our 3-gallon recipe looks like this!

"Poleeko Gold" Pale Ale Recipe (EX-3 Gallon)

3 lbs. Light Dry Malt Extract

5 oz. Caramel 20 Malt

5 oz. Carapils Malt

.5 oz. Chinook Hop Pellets 11.1% AA (60 min.)

.5 oz. Cascade Hop Pellets 6.2% AA (15 min.)

.5 oz. Perle Hop Pellets 8.9% AA (dry-hopped)

Wyeast 1968: London ESB Ale

OG: 1.049 IBU: 46

SMALL-SCALE ALL-GRAIN BREWING

One of the things that pushed me toward small batch brewing other than a lack of space was the possibility of all-grain brewing. As an employee at **The Beverage People** I was quite familiar with the process of all-grain brewing, but hadn't been able to try it myself due to a lack of equipment and space. There was no room in my apartment for additional equipment, so I set out to find a way to brew all grain batches in a small space. I knew from making mini mashes that my small kettle could hold up to four pounds of grain, so brewing up to two gallon batches was possible. I used an insulated cooler (shown below) fitted with a nylon straining bag as a mini



Three gallon "cornie" keg system. See page 25.



Two gallon "mash tun" with nylon mesh bag.

lauter tun, and sparged with water from another kettle. Overall, the process is incredibly simple and I can make an all grain batch of beer in an evening. You could also use a colander lined with some cheesecloth.

A time saving technique that I use for my one gallon batches is to cut down the boil from sixty minutes to thirty minutes. An example of doing that is illustrated in the following recipe which happens to be one of my favorite beers of all time. It's a version cloned from **North Coast's** Belgian golden

ale, **Pranqster**. I've had a great time experimenting with many one gallon Belgian recipes to get very close to this one. Since none of my

Small batch continued next page

friends enjoy the funk that comes with Belgian beers, this is a beer that I brew in single gallon batches and enjoy all by myself.

Belgian Golden Ale Recipe (AG1)

1.6 lbs. Belgian Pilsner Malt
7 oz. Vienna Malt
2 oz. White Wheat Malt
2 oz. Aromatic Malt
1 oz. Special B Malt
4 oz. Belgian Candi Sugar
0.5 oz. Saaz Hop Pellets 3.0% AA (30 min.)
0.5 oz. Saaz Hop Pellet 3.0% AA (10 min.)
Wyeast 3787: Trappist High Gravity

Mash at 150F for 60 minutes. Sparge with 170F water.

OG: 1.064 ABV: ~6%

IBU: 18

Hop calculation -
IBU Factors for batch size.

	Bittering 60 min.	Flavoring 30 min.	Aroma 5 min. or less
1 gal.	20.0	7.0	3.5
2 gal.	10.0	3.5	1.75
3 gal.	6.67	2.33	1.17
5 gal.	4.0	1.4	0.7

Use this table to help you quickly adjust your hop additions from a 5 gallon recipe.

For all sizes:

IBU = oz. x alpha acids x factor

EXPERIMENTING

With small batch brewing, I am free to make many different types of beer, so that I never get bored with one particular style. I also have the freedom to experiment with new recipes, because if I'm not happy with an experimental brew I can pour it out and quickly try again. This enables me to make gradual changes to a recipe without feeling wasteful about failed experiments.

Another benefit is that I am able to use expensive ingredients that would be cost prohibitive in a five-gallon batch. Recently, I made a maple porter using real maple syrup. Overall, I added one cup of maple syrup to a one-gallon batch. If I were making five gallons I easily would have spent over \$20 on maple syrup alone!

Another experiment was making a two-gallon all-grain porter. I opted to do primary fermenta-

tion in a three-gallon carboy and later split the batch into two, one-gallon carboys for secondary fermentation. Having the beer split into two carboys enabled me to experiment with flavorings. I added oak to one gallon and added hazelnut extract to the other gallon, resulting in two very different beers from the same boil. Here is the recipe with some suggestions for fun ingredients for you to try adding.

Basic Porter Recipe (AG2)

2.5 lbs English Pale Malt
10 oz. Pale Chocolate Malt
8 oz. Caramel 20 Malt
8 oz. Black Patent Malt
0.6 oz. Fuggle Hop Pellets 5.3% AA(60 min.)

0.2 oz. Fuggle Hop Pellets 5.3% AA(15 min.)

Wyeast 1968: London ESB Ale

OG: 1.044 IBU: 40

FG: 1.015 ABV: ~5%

FLAVORINGS

If you want to experiment with adding flavorings to this beer, add them during secondary fermentation. Consider:

- Adding half a vanilla bean soaked in vodka to produce a Vanilla Porter
- Adding 0.3 oz. French oak chips soaked in 2 oz. Bourbon to produce an Oaked Whiskey Porter
- Adding one bottle of Hazelnut Extract (NT17) to produce a Hazelnut Porter or try any *Still Spirits* Extract to make a liqueur-laced Porter

CONCLUSION

The biggest criticism I've heard about small batch brewing is that if you're going to put the time in to brew, you might as well get more beer for your effort. It's a good point and there are lots of brewers who would never consider brewing less than five gallons.

However, there are a lot of brewers who don't want to be constrained by the 'conventional' brew size either. If it's the difference between brewing small, or not brewing at all, I choose brew! Whether it is because you are short on space, experimenting with new recipes, or enjoy a variety of beers, small batch brewing has a lot to offer.

New Products - 2013

Black IPA Ingredient Kit - 5 gallons

This partial - mash ingredient kit comes with 6 lbs. of Dry Malt and over a pound of Midnight Wheat and Caramel malt grain (precracked) for your mini-mash. The Bittering Hops will announce their presence with over 50 IBU's and our



usual careful step by step instructions will guide your success. Comes packed with dry yeast, but you may change to a liquid yeast with a small upcharge.

BN125..... \$48.99.

The following four items work together to create a gas manifold that can dispense up to five Kegs.

Gas Manifold

Distributes CO₂ to multiple kegs. Complete the system for 5 kegs with six (Keg102) and 6 (Keg100) Quick Disconnect fittings. Or brass plugs (PB162) and less stainless disconnects for fewer kegs.

PB161\$12.99



Stainless Steel 1/4" MFL

x 1/4" M pipe. Use 6 for gas manifold systems with 1/4" female ports.

KEG102\$3.99



Quick Disconnect Fittings.

Stainless Steel 1/4" FFL Flare to 1/4" hose barb connector. Use for attaching hose with the hose barb end. Threaded side fits Keg102 above.

KEG100\$1.99



1/4" Brass Plug.

Use to stop CO₂ flow from ports not in use on the gas manifold.

PB162\$1.49

and salt sharpen the palate, preparing you for another tasty bite.

Try your pairing experiments with lighter dishes like salads, vegetable pastas, fish, and baked or poached chicken. A natural pairing is a crisp wheat beer, a fruitier Belgian ale, or light pilsners and lagers. Rich, full-bodied foods like braised dishes, or creamy and buttery dishes balance well with the cleansing - fat-cutting effervescence of light lagers, and crisp, dry pale ales.

Sweet items like dessert actually pair well with beers too. Stick with fruit beers, lambics, and sweet stouts. The fruit in the beer will pair well with fruit and contrast wonderfully with chocolate desserts. Also, the bitterness and roasted flavors of a dark beer will add savory complexity to the sweetness of your delicious dessert.

Now that you have the tools to pair food with beer, you can try your hand at cooking with it. Beer is best used in batters, soups, and braises. I like to replace the wine that a recipe calls for in a braised meat dish with beer (like a stout or brown ale).

If you are cooking the beer for a long time, avoid ones with high amounts of hops as their bitterness increases to an unpalatable level.

Here are some of my co-workers' favorite recipes to share. The spent grain that is used in Emily's bread is the leftover barley, wheat, or other grains from making a batch of beer. It has been mashed and sparged. Partial mash beers will yield plenty of grain, all-grain recipes will yield enough mash to freeze some for later. I like to think that if we had a beer potluck dinner, that these would be the dishes on the table.

Emily's Spent Grain Bread

1 Tbsp. instant yeast	1 3/4 cup room temp. milk
6 cups unbleached bread flour	1 Tbsp. kosher salt
1/4 cup honey	6 Tbsp. melted butter
1 egg	
1-2 cups spent grain (preferably a mixture of wheat and barley, as wheat has no husks and the husks from the barley are more chewy)	

Mix together the yeast and milk, set aside until the yeast has dissolved (make sure you use room temperature milk or it will not work). Combine the honey, butter, and egg until well mixed and then mix in the salt and flour. Add the milk and yeast mixture and work the dough until sticky. Add your spent grains. Using flour on your workboard, knead the dough for a few minutes. Split into two balls. Place one ball into a lightly oiled bowl and put in the fridge for later, and put one in an oiled loaf pan at room temperature. Leave covered with a kitchen towel for 4-6 hours until the bread has risen to the edges of the pan. Bake at 350 ° F. until golden brown and cooked through. Cool before slicing. When you are ready to bake the other ball, place it into an oiled loaf pan and leave out again until it has risen to edges of the pan.

Joe's Beer Batter Anything

1 egg	1 tsp. pepper
1 Tbsp. salt	1/8 tsp. cayenne pepper
1/8 tsp. garlic powder	1 cup flour
12 oz. bottle of your favorite beer	

NOTE: darker beers are more noticeable in the batter than lighter beers.

Choice of meat or vegetables cut into small pieces for frying (we like fish, chicken, onions, green beans, zucchini)

To prepare the batter:

Begin heating vegetable oil on medium high heat in a deep, heavy bottomed pot. Only fill the pot up to four inches from the top of the rim. Keep an eye on the oil, and don't let it smoke. You want it to be about

350-375 ° F. (use a thermometer). Mix Egg, salt, pepper, cayenne pepper, garlic powder and flour in a mixing bowl. Add about a bottle of beer to the mixture slowly, stirring until the batter is thinner than pancake batter but thicker than gravy.

To batter something:

Prepare a separate bowl with about a cup of flour with a teaspoon of both salt and pepper. Roll the meat or vegetable in the flour bowl until it is coated in a layer of the mixture. Dust off gently. Dip the flour-coated meat or vegetable in the batter bowl until it is completely covered in batter and place directly into hot oil. Using a toothpick for this step is great because as you lay the piece in the oil and pull the toothpick out, you will not leave any fingerprints or utensil marks. Fry until golden brown and cooked inside, and ladle out with a slotted spoon onto a wire rack or paper towels. Sprinkle with salt to taste while still hot. Pair with either the same beer you used in the batter, or something crisp and hoppy.

Kimi's Beer Braised Short Ribs

3 lbs. bone in beef short ribs	2 medium sized carrots
2 medium sized celery stalks	1 large yellow onion
3 large garlic cloves	1 anchovy filet
2 Tbsp. Flour	2 bay leaves
1 tsp. dried thyme	1 eight oz. can of tomato sauce
1 1/2 cups stout (I used Big Bear Black Stout from Bear Republic Brewing)	
1 Tbsp sugar	
Chicken stock (to cover)	

Preheat the oven to 300°F. Heat 2 Tbsp of vegetable oil in a dutch oven until shimmering. Sprinkle salt and pepper on the ribs and add to pan. Brown well on all sides, and do in batches so you do not overcrowd the pan. Dice carrots, celery, and onion and add to pan. Over medium heat saute vegetables until they become soft. Add the anchovy filet and the 3 garlic cloves (minced). Saute for one minute. Add the flour to the pot and stir constantly for one minute.

Add your beer, and scrape up all of the bits stuck to the bottom of the pan. There will be a lot of foaming. Add the can of tomato sauce and sugar. Add your meat back into the pot. Add chicken stock to the pan until the ribs are almost covered, but do not actually completely cover them. Add bay leaves and thyme. Bring entire pot to a simmer and then cover and put in the oven. Braise for 2- 2.5 hours. The meat is done if the meat is falling off the bone and it is fork tender. Remove from the oven and let sit on the stove for ten minutes.

If serving the same night, spoon off the fat that has collected on the top of the braising liquid. You can remove the meat to a platter, and strain out the vegetables from the braising liquid. Return the liquid to the pot and boil for 5-10 minutes to reduce, then return the short ribs to reheat (turn the heat down and do not boil to reheat). If you are serving the next day, you can put the ribs in their pot in the refrigerator and remove the fat cap that has formed the next day.

Kimi's Beer Syrup Ice Cream Drizzle

One 22 oz. bottle of **Brekle's Brown** by **Anchor Brewing** (or any other malty, not hoppy American brown ale)

1/4 cup sugar

Combine entire bottle of beer and sugar in a saucepan. Watch the foaming as you slowly heat the beer. It will eventually not foam anymore. Bring to a gentle simmer and reduce beer until its volume has reduced to about 1/4- 1/2 cup. This will take about 30 minutes. The beer will be syrupy and thick. Let cool and drizzle over high-quality vanilla bean ice cream. Sprinkle honey roasted peanuts or another nut on top. Don't go crazy with the drizzle, a little goes a long way. In my opinion, it kind of tastes like a **Snickers!** Avoid any beer with a distinct hop profile, it does NOT taste good when it is cooked and reduced.

as it used to be. It is not employed by most homebrewers and is only used by a few commercial breweries today such as England's *Fullers*. *Fuller's* uses partigyle brewing combined with blending to produce 4 distinct beers from one mash. A single mash is performed and then the first and second runnings are separated and hopped and fermented separately. Once fermentation is complete, the higher and lower gravity runnings are blended at different proportions to produce *Golden Pride Barleywine*, *ESB*, *Chiswick Bitter*, and *London Pride Pale Ale*.

The following recipes are created from several different partigyle techniques. Beginning with a **split batch** based on the gravity of the runoff, followed by **50/50 splits** to produce different beer styles either by changing yeast or by changing both hops and yeast. Also a technique known as **capping** is included and finally a recipe for a **high-gravity brewing** method that has been used at *Coors's Brewing*.

One-third/Two-thirds Split Batch Technique

The partigyle technique really lends itself to 15 gallon batch-sized brews and simplifies the work. According to Randy Mosher, about half of the sugars extracted from the grain come out in the first third of the sparge, the first 5 gallons. The second half of the gravity is contained in the last two-thirds of the sparge, the last 10 gallons. With a simple "one-third/two-thirds split," a higher gravity beer can be produced alongside a lower-gravity beer. The benefit of this split is not only the two different beers, but their potentially complementary nature. For instance, one could brew a big 7 or 8 percent IPA or double IPA next to a blonde or a pale ale, giving one a reprieve from those weighty IPAs when they start to catch up with you.

The brew will be made by mashing as normal with all the grain. It's when you get to the sparge that you will deviate from regular practices. The first and second runnings are going to be separated. The easiest way to do this is to have three of our 6.5 gallon buckets. Run the first 6 gallons of the sparge into one bucket. Then run the next 11-12 gallons into the two other buckets. Make sure to mark the 3 buckets to identify them. The first runnings (the first 6 gallons) will be boiled separately from the second runnings (the second 11-12 gallons). You can boil the two separately in two different pots if you have them. Alternatively, you can boil one and then boil the other.

Big Bear IPA/Little Bear Blonde Partigyle(AG15)

20 lbs English 2 Row Malt
4 lbs Munich 6.5L Malt
2 lbs Carared 22L Malt
1 lb Caramel 40L Malt
1 lb Carapils Malt
1 lb Melanoidin 30L Malt
3 tsp. Gypsum
1.5 tsp. Chalk (Calcium Carbonate)
3/8 tsp. Calcium chloride
2 Whirlfloc Tablets
(Hop schedules follow for each of the batches)
Big Bear IPA #1056 or WLP001 Yeast
Little Bear Blonde #1272 or #1968 Yeast

Hop each of the beers with their respective hop schedules as follows:

Big Bear IPA Hops 76 IBU - 5 gallons

0.4 oz Columbus Hop Pellets (60 min.) 26 IBU
1 oz Nugget Hop Pellets (30 min.) 19 IBU
2 oz Zythos Hop Pellets (5 min.) 14 IBU
1.6 oz Columbus Hop Pellets (5 min.) 18 IBU

Little Bear Blonde Hops 19.5 IBU - 10 gallons

0.7 oz Nugget Hop Pellets (30 min.) 13 IBU
2 oz Willamette Hop Pellets (5 min.) 6.5 IBU

50/50 Split Technique

This second partigyle method helps resolve problems if you brew with a partner. A common issue that arises when designing recipes is finding a common ground regarding the hop profile. The benefit of partigyle brewing is that you have the opportunity to hop that same beer two different ways. To do this, brew the beer and sparge as normal, but combine the runnings. Stir the combined wort to ensure an even gravity distribution. Next split the batch in half between two kettles. Now both halves can be separately boiled and hopped. My roommate and I have been finding this particularly useful because *I tend to like piney and resiny hop character while he prefers citrusy character*. Of course I'm right and he's wrong. Seriously, this technique allows both of us to get the beer we want without compromising, at least about the hops. It looks like this:

Can't Agree Red IPA (AG10)

9 lb English 2 Row Malt
8 lb German Munich 6.5 Malt
4 lb Dry Rice Extract
2 lb Belgian Special B Malt
2 lb Carapils Malt
2 lb Flaked Rye
1 lb Caramel 120L Malt
1 lb Caramel 60 Malt
1 lb Canadian Honey Malt
1 lb CaraVienne Malt
2 tsp. Gypsum
1 tsp. Chalk (Calcium Carbonate)
1/4 tsp. Calcium Chloride
2 Whirlfloc Tablets
#1056 or #1968 yeast

Hops for the 5 gallons for a **piney** hop profile:

1.4 oz. Cascade Hop Pellets (60 min.) 45 IBU
0.75 oz. Cascade Hop Pellets (30 min.) 8.5 IBU
0.7 oz. Palisade Whole Hops (30 min.) 8.5 IBU
0.75 oz. Simcoe Hop Pellets (30 min.) 13.5 IBU
1.8 oz. Cascade Hop Pellets (5 min.) 10 IBU

Hops for the 5 gallons for a **citrusy** hop profile:

0.86 oz. Citra Hop Pellets (60 min.) 45 IBU
2 oz. Centennial Hop Pellets (30 min.) 30 IBU
1.1 oz. Citra Hop Pellets (5 min.) 10 IBU

We've talked about producing two different strength beers from one mash and about hopping the same beer differently, but

Multiple brews continues next page.

what about brewing two very different styles of beer from one mash? Well, there's an app (technique) for that too. For instance **Kölsch** and **Pale Ale** have very similar *BJCP* style guidelines, but they use distinctly different yeasts. The 10 gallons could be split in half for the fermentation, with 5 gallons fermented by a Kölsch or German Alt yeast and the other 5 gallons with a neutral flavored yeast, such as American Ale I or II or London ESB yeast.

Partigyle Kölsch/Pale Ale (AG10)

7 lbs. English 2 Row Malt
7 lbs. Kolsch Malt
1.5 lbs. Canadian Honey Malt
1 lbs. German Wheat Malt
0.5 lbs. Crystal 20L Malt
0.5 lbs. Belgian Biscuit Malt
0.5 lbs. Carapils Malt
1/2 tsp. Gypsum
1/4 tsp. Calcium Chloride
2 Whirlfloc Tablets
Yeast for the *Kölsch* version #2565 or WLP029
Yeast for the *Pale Ale* version #1056 or #1272

Hops for the 5 gallons if you like *Kölsch* hops

0.3 oz. Perle pellets (60 min.) 10 IBU
0.6 oz. Perle pellets (30 min.) 7 IBU
3 oz. Willamette pellets (5 min.) 10 IBU

Hops for the 5 gallons if you like *Pale Ale* hops

0.3 oz. Perle pellets (60 min.) 10 IBU
1.2 oz. Cascade pellets (30 min.) 10 IBU
3.5 oz. Cascade (5 min.) 15 IBU

The Capping Technique

Another technique that one could use to partigyle even with 5 gallons of wort is called capping. Capping a mash is somewhat like fortifying and involves performing a mash as usual, sparging, and then adding more gravity to the mash. This can be done in a variety of ways.

The simplest way to add gravity is to do direct additions of sugar. These additions could be sourced from malt extract, honey, rice or corn sugar, fruit, or candi syrup. They would be added to the beer at the boil to increase the beer's gravity and change the flavor profile.

One all-grain capping technique involves mashing and sparging as normal. However, once the sparge is complete fresh, unmashed malts can be added to the original mash grains. The combined grains are then remashed and sparged again to add more gravity to the original sparge. This allows brewers to add more gravity to the weaker second runnings. It also allows different specialty malts to be added to the second runnings, allowing one to produce two distinct beers.

A note of caution concerning the addition of grains for a second running beer. You may need to test the pH of the wort to avoid astringency in the later stages of runoff.

Similarly, one could perform a second mash, separate from the first, and add that to the second runnings from the first

mash. This allows one to add more gravity and specialty malt flavors without running the risk of oversparging and creating astringent flavors.

High-Gravity Technique

The final technique can be employed for lower gravity beers to produce more gallons of beer than the capacity of the brewpot. For instance, 10 gallons of blonde ale could easily be produced in a 7.5 gallon pot. All one has to do is mash a double strength blonde ale and then dilute it out to 10 gallons to hit the desired gravity. This dilution can be done before or after the boil depending on whether one wants the two 5 gallon batches to be hopped the same. Further, the two batches could be fermented with different yeast. Either way it ends the same; twice as much beer as you would have made without dilution.

Two Blondes Blonde Ale (5 gallon batch ending in 10 gallons of beer)

14 lb. American 2 Row Malt
2 lb. White Wheat Malt
1 lb. Caramel 20L Malt
2 tsp. Gypsum
1 tsp. Chalk (Calcium Carbonate)
1/4 tsp Calcium Chloride
2 Whirlfloc Tablets
3.2 oz Willamette Hop Pellets (30 min.) 10 IBU
6 oz Willamette Hop Pellets (5 min.) 10 IBU
#1056, #1272, or #2565 yeast

Note: Partigyle brewing requires a little more creativity at the 5 gallon batch-size level. With only 6-7 gallons of runnings, it is a bit more difficult to separate the runnings into two beers. But it can be done. One way to split a 5 gallon batch of beer is to split the runnings and to make 2 three gallon beers. The same techniques can be employed as mentioned earlier. After the mash is complete, the first 3 to 3.5 gallons can be separated from the second. The two can be hopped together or separately and can be fermented with different yeasts.

Enjoy some of these ideas for stretching the mileage of your mash and creating different beers from the same mash. Try them out. Discover new techniques. Always experiment. And most importantly, share what you learn.

Scan the code below to access the *Brewing Calculations Chart I* use to prepare for a brew. Feel free to bring a copy to the store on your next visit, I'd love to see your recipe.



Give Lager a Try

by Bob Peak

Ales dominate the world of craft brewing. Homebrewers and craft beer pros alike spend most of their time making Pale Ales, IPA's, Belgians, Porters, Stouts, and so on. Meanwhile, the wider commercial world of beer is made up mostly of light (blonde) lagers. Indeed, the top ten worldwide beer brands by volume are all blonde lagers, led by Snow Beer of China (a joint venture of SABMiller and China Resources Enterprises) at 61 million hectoliters or about 1.6 billion gallons annually. By contrast, all craft brewers in the US combined - making mostly ales - produce 9.12 million US barrels, or 1.9 billion gallons annually, just edging out the single largest lager brand in the world.

This contrast sometimes fosters an "Us vs. Them" viewpoint with craft ales on one side and all lagers on the other. But that isn't the whole story. There are many full-flavored, immensely enjoyable lagers produced by craft brewers. As a home brewer, you can make them, too. Out of more than 75 beer styles in the *Beer Judge Certification Program* (BJCP) style guidelines, nineteen of them are lager beer styles. I may be biased - my favorite homebrew styles are lagers - but I think these beers too often go unappreciated (and untried) by home brewers.

The home brewing of lager vs. ale involves ingredients, equipment, and techniques. Without too much trouble, anyone who already brews ale will be able to slip into the lager world, at least a little bit.

Ingredients

The barley malts and hops for lager brewing are the same as those for ales. You could make a **Munich Helles lager** with the same grain bill and hop program as a **Blonde ale**, or an **Oktoberfest Lager** in common with a **Düsseldorf Alt**. While there are strong traditions in some styles (like using Vienna malt in a **Vienna lager**), the big difference in ingredients comes from the yeast. Ale yeasts are referred to as "top cropping" from the traditional systems - like the Burton Union - for gathering yeast for the next batch from the top of a working ferment. Lager yeasts are "bottom cropping" and usually drained from a conical fermenter after chilling the beer. Ale yeast strains are generally selected from the species *Saccharomyces cerevisiae* while lager yeasts belong to the closely related

but distinct species *Saccharomyces pastorianus* (formerly known as *S. carlsbergensis*, reflecting its commercial brewing origins in the 19th century).

Equipment

Brew-day equipment is the same for ales and lagers, with the possible addition of another kettle if a traditional decoction-mashed lager is in the works. For fermentation, however, it gets a bit more complex. Ales are usually fermented around the range of 68 to 72°F, or roughly room temperature in most of the U.S. Lagers, on the other hand, are fermented at 45 to 55°F, generally requiring some equipment to control the fermentation temperature in that lower range. Furthermore, after fermentation is complete, lagers are stored cold for aging and clarification over a period of several weeks. ("Lager" itself comes from German for "storage"; "storehouse" translates to "*Lagerhaus*.") So, once again, provision for temperature control must be made.

TECHNIQUES

Brew-day can be very similar for lagers and ales. For accurate reproduction of traditional German-style lagers, the all-grain brewer may wish to do a decoction mash, where a portion of the mash is boiled and returned to the main mash to raise the temperature. For most lagers, as with most ales, you can be very successful with a single infusion mash or the use of dry malt extract. After pitching the yeast, your techniques will be different. Instead of just leaving your fermenter in the closet as you might do for an ale, you will need to control the temperature somehow for a lager. If you have a wine cellar with a cooling unit set at 55° F (as I do), just set your primary fermenter on the floor in the cellar. In winter in Northern California, an unheated garage or outbuilding will often stay between 45 and 55° F, and you can just put your fermenter there. At other times of year or in warmer climates, you can improvise your fermenter control by placing the carboy or bucket in a large tub of water. Add some frozen water bottles to the tub and monitor the temperature with a fermometer strip stuck to the side of the fermenter. Change out the water bottles for some others you are keeping in the freezer once or twice a day and soon you will achieve pretty good fermentation temperature control. For the next higher level of control, get a spare refrigerator, add an override thermostat controller to it, and place your carboy or bucket inside. For

very advanced brewers, there are temperature probes that can be put into the beer itself to control the refrigerator operation. For a "California Common" lager - like Anchor Steam® beer - you can get away with a bit warmer fermentation; maybe as high as 70°F. Of course, cooler fermentation temperatures mean longer fermentations - one of the reasons ales dominate the craft beer scene. With ales, you can make more beer in less time on the same equipment!

For the "*lagering*" stage, you have several choices. The easiest is to just skip it. While the lagering period does improve clarity and mellows the flavors, it is the cool fermentation with lager yeast that mostly defines lager character. So if you do not mind a little cloudiness in your beer, just store it cool for a few weeks after bottling and you should be fine. To achieve full clarity, put your secondary fermenter in a refrigerator at 30 to 38° F for three to six weeks. I rack my lagers to a corny keg, flush with CO₂, and put the keg in my 38° kegerator for a few weeks. As with most beers, bottled lagers held in the refrigerator will become sparkling clear over time. In other words, don't let the lack of a **Lagerhaus** keep you from making one of these beers. Here's my recipe:

"Tule Fog" Steam Beer (California Common) (AG5)

7 1/2 lbs. 2-Row Lager Malt
1/2 lb. Caramel 20 Malt
1 lb. Dark German Munich Malt
3 oz. Belgian Special B Malt
1/4 tsp. Calcium Chloride
1/2 tsp. Chalk
1/4 tsp. Gypsum
1 Tbsp. Irish Moss (15 min.)
.5 Perle Hop Pellets (60 min.)
15.4 IBU
.5 oz. Perle Pellets (30 min.) 5.3 IBU
.5 oz. Northern Brewer Hop Pellets (30 min.) 7.2 IBU
.5 oz. Northern Brewer Hop Pellets (5 min.) 3.6 IBU
Water to 5 gallons
3/4 cup Corn Sugar for Priming
WLP810 San Francisco Lager Yeast

Mash grains together at 150° F. for 60 min. Mash out and sparge at 170° F. Use a 60 min. boil, adding hops as indicated above. Ferment at 62 to 70° F, secondary at 55° F, and 48 hour diacetyl rest at 70° F.

Lager 3 to 6 weeks at 30 to 34° F.

SG 1.050 IBU 31.5

Basic Equipment

For beginners, trying to choose among all the options for homebrewing can be confusing. We want you to be successful from the very beginning, so our recommendations are based on 30 years of experience.

This list will set you on your way to successful brewing at home.

1. *Brewing Quality Beers*, the book for award winning brewers.
2. A Brew Kettle of at least four gallons capacity. Stainless steel or enamel.
3. A Primary Fermentor of at least 6.5 gallons capacity. This may be either plastic, glass, or stainless steel.
4. A five-gallon Secondary Fermentor, or “carboy.” Glass or PET plastic.
5. A Fermentation Air Lock and Stopper to fit both fermentors.
6. A Siphon Assembly (Racking Tube, Hose, and Hose Clamp).
7. A Bottle Filler.
8. Bottle Caps.
9. A Capper.
10. Beer Bottles (Approximately 52 12 oz. bottles).
11. Cleaner such as TDC.
12. Sanitizer such as BTF.
13. Bottle and Carboy Brushes.

Optional Equipment...

1. Wort Chiller.
2. Outdoor Propane Burner.
3. Thermometer.
4. Hydrometer and Test Jar.
5. Stainless Steel Strainer.

Making delicious, handcrafted beers is a time-honored process anyone can enjoy!

Follow these simple step-by-step instructions

1. Bring at least three gallons of water to a boil. If your pot is large enough, start with 5 gallons.
2. Dissolve the water treatment salts.
3. If your kit contains cracked grain, begin by adding grain to a saucepan of hot water. Allow to steep at approximately 150° F for the time indicated (30-60 min.). Rinse the grain in a sieve strainer with 1-2 quarts of 170° F water, and collect the liquid in your boiling kettle, discarding the grain.
4. Stir in the Dry Malt Extract (and Dry Rice Extract or Dextrin Powder if called for in your kit).
5. Bring to a boil.
6. Add hops as recommended in your kit instructions.
7. Complete the one-hour boil.

NOTE: Once the boil ends follow proper sanitation methods

8. Cool (if possible, use a Wort Chiller).
9. You now have unfermented beer, this is called “Wort.” Transfer your Wort to a sanitized Primary Fermentor. When the temperature approaches 70° F. then add the Yeast.
10. Fermentation usually starts within 24 hours. Agitate fermentor day and night until fermentation starts. Keep the Fermentor tightly covered, with a Fermentation Air Lock attached. The Air Lock should be filled half full of sterile water and the lid attached.



Getting started



Add cracked grain



Stir in dry malt extract



Rinse cracked grain



Bring wort to a boil, proceed with hop additions

Cont. next page.

Turn to the next page for our lineup of quality equipment...



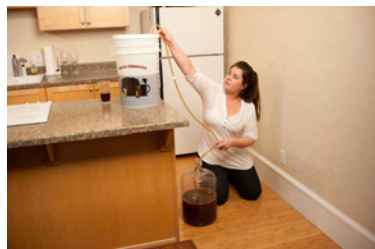
Bottling your beer.



Use a timer as a helpful reminder for your hop additions



Transfer your Wort to a sanitized Primary Fermentor.



Rack to fill a Secondary Fermentor

1. Sanitize bottles by standing them for at least two minutes in a BTF Iodophor solution (1 Tablespoon Iodophor in five gallons of water). After emptying them, store the bottles upside-down in their cases until ready to use. Sanitize your bottles weeks ahead or on bottling day.

2. Boil Priming Sugar in 1/2 to 3/4 cup water for 5 minutes.

3. Siphon beer from Secondary Fermentor back to your sanitized Primary Fermentor or bottling bucket.

4. Thoroughly stir Priming Sugar syrup into the beer.

5. With your Bottle Filler, fill your bottles to within 1/2 inch of the top. Cap, and set aside to carbonate for 1-2 weeks at room temperature.

6. Chill down a bottle and pop the cap. Pour gently to leave the yeast sediment behind. Enjoy!



11. After three to seven days of active fermentation, or when bubbling has virtually stopped in the lock and the foam has receded to the surface, the beer is ready to transfer to a sanitized Secondary Fermentor.

Siphon carefully, splashing the beer as little as possible. Fill up to the carboy neck, and attach a Fermentation Lock.

12. Give the beer a week or more, of settling (as directed in your kit instructions).

13. Finish the brew by following the instructions for bottling in next box.



Success!

©2011 photos from Mitch Rice, Studio Fifteen

EQUIPMENT KITS

Our Equipment Kits

Our kits adapt commercial brewing methods to the needs of home brewers and pilot breweries.

Each kit will enable you to brew any style of beer you'd like and each is expandable. Make larger batches just by adding more containers. Brew great beer every time.

No matter how far you go with the hobby, everything in our kits will continue to be useful. Also, see page 23 for beer bottles.

NEW:

Upgrade to the **Super Standard Equipment Kit!** Includes everything that comes in the Standard Equipment Kit plus our 30 qt stainless steel brewing kettle. The perfect size kettle to brew 5 gallons of beer.

BN25..... \$174.99.

NOTE:

You can exchange the five gallon PET plastic bottle for a five gallon glass carboy in any equipment kit for \$15 plus additional shipping charges.

Standard Equipment Kit

(photo right)

Our brewery contains a full size 6.5 gallon plastic fermentor and lid, five-gallon PET plastic bottle for secondary storage, fermentation lock and 2 drilled rubber stoppers, siphon assembly, bottle filler, "Emily" capper, 144 crown caps, stirring spoon, a bottle brush, cleaner (TDC) sanitizer (BTF) and the book *Brewing Quality Beers*, by Burch

BN21\$94.99



The "Beverage People" Standard Equipment Kit.

Deluxe Equipment Kit

(photo left)

This kit includes everything that comes in the Standard Equipment Kit plus a six and a half gallon glass carboy with additional fermentation lock and drilled rubber stopper, a carboy brush, and an 8" dial top thermometer, hydrometer and test jar.

BN22.....\$159.99



The "Beverage People" Deluxe Equipment Kit.

Super Brewer Equipment Kit

(photo right)

This kit has it all. It is designed to save you time and makes your brewing day more effective to ensure successful brewing time after time. Everything is included from both the standard and deluxe kits plus you get a longer 12" dial top thermometer, a full sized 30 qt brewing kettle, 25' copper wort chiller and 2 cases of 12 oz bottles.

BN23.....\$294.99



The "Beverage People" Super Brewer Equipment Kit.

©2011 Mitch Rice,
Studio Fifteen, Page 8-9 and product photos.



**5 Gallon Personal
All-Grain Brewery**



10 Gallon Professional All-Grain Brewery

We've spent 25 years perfecting our brewery design to benefit both home brewers and pilot breweries. This brewery excels at utilizing a small space with our offset burners and all gravity flow. No high overhead flames, no pumping or lifting of heavy kettles is needed. All that you add is one propane tank.

The fully adjustable high pressure regulator operates all three burners independently. Included are three kettles with lids: the *mash/lauter kettle* comes with a *false bottom*, and the *hot liquor kettle* with a *shower tree* for gentle sparging of the grain. All kettles come with 1/2" stainless steel shut off valves and tubing for draining. See list below to order kettles separate from the brewing rack, or if you already own kettles, you may order just the brewing rack with plumbing and burners.

**PB08 The Complete 5 Gallon Personal
Brewery with three PolarWare (USA)
32 qt. kettles\$1695.00**
(Rack is 16"W x 32"L x 50"H)

Components available separately:

**PB43 Brewery Rack with plumbing
and burners\$875.00**
K05 Mash/Lauter Kettle\$294.99
K07 Hot Liquor Kettle\$279.99
K02 Boiling Kettle\$269.99
SP54 Shower Tree Alone\$14.99
**PB07 1/2" Full Port Ball Valve
(stainless).....\$19.99**

**PB09 The Complete 10 Gallon Professional
Brewery with three Heavy Duty (China)**

60 qt. kettles\$1795.00

**PB09-P The Complete 10 Gallon Professional
Brewery with three PolarWare (USA)**

60 qt. kettles\$1995.00

(Rack is 19"W x 38"L x 50"H)

Components available separately:

**PB12 Brewery Rack with plumbing and burners,
.....s\$895.00**

K13 Mash/Lauter Kettle\$359.99

K12 Hot Liquor Kettle\$299.99

K11 Boiling Kettle\$289.99

K14 or K03 False Bottom\$95.00

SP54 Shower Tree Alone\$14.99

**PB07 1/2" Full Port Ball Valve
(stainless).....\$19.99**

5 GALLON INGREDIENT KITS



Ingredients in kits will vary with kit selected.

Our kits are premeasured to assure your success. Complete instructions will guide you through your first beer and introduce you to 26 different beers. The recipes are tested by our award winning staff.

North American Beers

BN01 American style Light Lager (*)

A blonde to golden beer with a crisp, smooth taste. Richer in flavor and body than most commercial examples.

BN02 American style Dark Lager (*)

This is a premium dark beer in the North American style. Like some of the best known south-of-the-border examples, it has a refreshing taste and a long, complex finish.

Kits above are each \$32.99

BN53 Cream Ale (*)

An adaptation of American Lagers, cream ales are golden, refreshing beers that are fermented as ales—kept in cold storage before bottling. **Ours has a rich, creamy, long-lasting head and mild smooth flavors, followed by mild hop bitterness.....\$42.99**

BN14 American Pale Ale

The entry leader of our pale ale series is light and crisp with balanced hop flavors and aromas. Pronounced fruitiness, distinct hop character, and a dry finish. **Anyone who ever ordered a pint would likely have another.\$39.99**

BN19 American India Pale Ale (IPA)

One of the historic pale ale styles, our IPA follows the California tradition of higher hop rates than the English. This style offers a pretty amber color, full body, and overt hops bitterness and aroma. **One of our most popular kits.\$47.99**

Yeast Choices

Kits with an asterisk (*) come with liquid yeast, while the others come with dry yeast. You may also change any kit with a dry yeast to a liquid yeast. Ask us and we'll happily make the selection for you.

Yeast upgrade is \$3.99.

BN125 Black India Pale Ale (IPA) **NEW!**

The march to IPA land continues to expand and the Black IPA's are leading the way. This version was a successful recipe we published in 2011 and incorporates a new grain from Briess Malting - Midnight Wheat. A hefty, lush ale you will enjoy in place of your standby American IPA. **Our newest kit.\$48.99**

BN117 Imperial India Pale Ale (IPA)

Imperial (or double) India Pale Ale is a modern American extension of traditional English and American IPA's. They are much stronger and much hoppier than their standard-strength cousins, but the best examples—like ours—still have good balance between hops and malt. With three packs of bittering hops and two more for flavor and aroma (including dry hopping) this beer packs about 90 gravity points for malt and 90 IBU's of hop bitterness. Want a big, hoppy beer?

Give this one a try.\$59.99

English Ales

BN124 London Mild Brown Ale (*)

This easy-drinking brown ale originates from the time described in *Old British Beers*, predating the arrival of pale malts in the 1680s. Earlier malts, dried over fires of hardwood or straw, resulted in ales with a nut-brown color, just like this beer. Originally one of the contributors to the development of porter, London Mild is the "starter" in the English brown ale series, progressing on with Nut Brown, Porter, and Stout. **\$34.99**

BN07 Nut Brown Ale

Echoing the historic ales of England's Newcastle district, this recipe for a nut brown ale is less hoppy than American (or Texas style) brown ales and higher in gravity than its London cousins. An ale that's not as dark or heavy as stout or porter, but richer than most pale ales.**\$36.99**

BN20 ESB - Extra Special Bitter (*)

Our ESB is a smooth, satisfying beverage with no sharp edges. Rich color and full, round body in a medium gravity ale. **(Despite the name, it's less bitter than most IPA's)**

BN08 Porter (*)

The beer of the Industrial Revolution. This smooth, creamy dark ale reflects profoundly its origins in 18th century Britain. Dark, toasty, and medium hopped it is a thick, strong beverage.

BN09 Irish style Stout (*)

Love those black stouts from Ireland? You can make a great version at home with this kit. Black color, firm hops, a dry finish (for stout), and a very rich flavor profile, great on draft.

Kits above are each\$46.99

BN121 Dark Chocolate Porter

Porters have had a long tradition of added flavorings. While references cite a long list of strange ingredients, we add only the familiar and very agreeable “Scharffen Berger”™ cocoa powder, with mellow and warm cocoa aromas and flavors.

BN36 Strong Coffee Stout (*)

A fabulous combination of flavors from dark caramel and black malts melded with the freshness of great coffee. **Truly a Northern Californian’s cup of tea.**

BN54 Oatmeal Stout (*)

Oatmeal has long been a popular grain addition for stouts. This oatmeal stout is rich, and malty, black in color with mild bitterness. The oatmeal contributes a thick and creamy head and a slight sweetness in the finish

Kits above are each\$54.99

Wheat Beers

BN04 Wheat Beer

Our crisp, refreshing wheat beer is the modern California microbrewery style. Moderately hopped and brewed with a clean, neutral ale yeast, it can easily serve as your weekend “lawn-mower beer” while offering a very satisfying experience. \$32.99

BN05 HefeWeizen (above kit with liquid yeast #3056).. \$35.99

BN120 Honey Wheat Beer

A *Beverage People* specialty that includes a jar of our own **Meadmakers Magic™ pure clover honey**. Similar in style to the above wheat beer, the honey fermentation adds a special creamy aftertaste.\$44.99

BN15 Fruit Ales

Take your wheat beer to a new level! Enhance a California style wheat with **your choice of natural fruit flavor: peach, raspberry, blueberry, blackberry, or apricot.**\$44.99

European Beers

BN10 Light Lager (European Pilsner) (*)

Of the great Old World beers, pilsner is actually one of the youngest, dating only to about 1842. Enjoyed with some variations the world over, our recipe for this classic beer reflects the golden color, rich body, and fragrant hops characteristic of the original. **Very crisp and refreshing.**

BN11 German Amber (Altbier) (*)

While commercial German brewing is dominated by lagers, fine examples of ales are still brewed there. This style is primarily from the Dusseldorf region. Ours is a rich, complex, amber ale with the unique nutty taste of “*Special B*” malt. **Our kit comes with an authentic German Ale yeast strain.**



BN12 Amber Lager, Oktoberfest (*)

These rich amber lager beers are closely related to the Märzen (March) beers of Munich, Germany. Before refrigeration, beers made in March had to last all summer until brewing resumed in the fall. **Celebrate with our amber, complex, toasty Oktoberfest.** If it seems familiar, it may be because the Austrians brought amber lager brewing to Mexico.

Kits above are each\$41.99

Strong Beers

BN26 Bock (*)

Ours is a bock in the true Munich style—a strong lager, lightly hopped, with a rich body and creamy head. This is one of the classic German beers, rarely seen in commercial production in North America.

BN122 Irish Strong Red Ale (*)

While Irish brewing is perhaps best known for its black stouts, some ales in Ireland have been red since before detailed brewing records were kept—the exact origin for the style is unknown. What is known—and is still true today—is that these beers are rich, and malty, mild in bitterness, and of a distinctly reddish hue. **Our recipe includes the specialty malt, “Melanoidin”, for true red beer color and malt flavor.**

Kits above are each\$52.99

BN18 Belgian Strong Ale (*)

Belgian ales are well known for their strength and the diversity of their flavoring ingredients. Our example is light in color, but big on flavor; smooth and strong. **We include Belgian “candi sugar” for authentic old-world character.**

BN119 Strong Scotch Ale (*)

Be aware, Laddie (or lassie): if it says “Scotch Ale” (like this one), it’s a **wee bit stronger than a beverage called “Scottish Ale.”** This strong beer gained international renown as early as 1578. Our version is an amber, malty ale that may bring you visions of kilts and highland dancing.

Kits above are each\$55.99

BN24 Royal Imperial (Russian Stout) (*)

Byron Burch, founder of The Beverage People, won “Homebrewer of the Year” with the stout that inspired this recipe. A very high gravity stout with rich chocolate and roast malt flavors, it epitomizes the ale style “originally brewed for Catherine II, Empress of all the Russias” in the 1780’s. This version is a wonderful beer for a cold winter’s night. ...\$61.99

LIQUID & DRY MALT

Malted Barley Wheat & Sorghum

GETTING STARTED GLUTEN FREE

"Black Pearl" Buckwheat Chocolate

Brown Ale (Gluten Free) (EX5)

6 lbs. White Sorghum Syrup
1 lb. Dry rice extract
1 lb. Dark (D2) Belgian Candi Syrup
4 oz. Dextrin powder
1 lb. Whole Buckwheat (groats),
toasted
(see below)
½ tsp. Koji concentrate powder
6 oz. Scharffen Berger cocoa powder
¼ tsp. Gypsum
¼ tsp. Calcium Chloride
½ tsp. Chalk
2 Tbsp. Irish Moss (15 min.)
1/2 oz. Perle Hop (60 min.) 18.2 IBU
1/2 oz. Perle Hop (30 min.) 6.3 IBU
3/4 oz. Cascade Hop (30 min.) 6.6 IBU
1 oz. Cascade Hop (5 min.) 4.4 IBU

Water to 5 gallons (2 qts. set aside for
minimash and 3 qts. for sparging)
3/4 cup Corn Sugar for Priming
1 Fermentis Safale 04 English Ale
Yeast

SG 1.066 - IBU 35.5

Your whole buckwheat may be labeled something like "Buckwheat (groats) lightly toasted." The kernels will be off-white to light tan. For this beer, we want them toasty and brown. Spread the groats on a dry cookie sheet and toast in the oven at 325 deg. F for 25 minutes, stirring from time to time. Cool. Working in batches, whirl toasted buckwheat in a blender briefly with some of your 2 qts. of minimash water—just long enough to crack the grain. Put cracked grain and water, plus any remaining water of your 2 qts., into a small pot. Heat to 122 deg. F and stir in ½ tsp. Koji powder. Cover and let stand 30 min.

Add brewing water to kettle and begin heating. Meanwhile, heat your reserved sparge water in another pot or teakettle to 170 deg. F. Pour buckwheat mash into a collander over your brew kettle. Rinse with the 3 qts. of hot water. Begin boil, adding hops as indicated. Add remaining ingredients except cocoa and priming sugar. Boil 55 minutes, add cocoa and last hop addition. Boil 5 minutes more.

Dry Malt Extracts (DME)

DME is malt extract reduced to powder, rather than syrup. All our dry malts are unhopped. Yield is nearly 20% higher per pound, and the flavors are smoother than liquid extracts.

Proudly featured in our ingredient kits.

DME06 **Light**, 3 lbs.\$11.99

DME01 **Light**, 5 lbs.\$17.99

DME07 **Amber**, 3 lbs.\$11.99

DME02 **Amber**, 5 lbs.\$17.99

DME08 **Dark**, 3 lbs.\$11.99

DME03 **Dark**, 5 lbs.\$17.99

DME10 **Weizen**

(65% Wheat and 35% Barley malt)

3 lbs.\$11.99

DME05 **Weizen**, 5 lbs.\$17.99

Gluten Free Brewing Extract

White Sorghum Syrup

Functions as a *gluten-free* malt extract substitute. (7 lb. tub)

BM30 **White Sorghum**\$21.99

Malt Syrup Extracts

100% malt syrup. All are unhopped. Malt is sourced from Alexander's, Cooper's and Briess

Briess (American)

100% malt, very popular

3.3 lb Plastic screwtop jar.

BM07 **Light**\$12.99

BM11 **Amber**\$13.99

BM15 **Dark**\$12.99



Coopers (Australian)

Pure malt, highly respected.

(3.3 lb. can)

CM17 **Light**\$15.99

CM18 **Amber**\$15.99

CM19 **Dark**\$15.99



Alexanders (American)

100% malt, top notch extracts

(4 lb. can)

CM21 **Pale**\$14.99

CM22 **Wheat**\$14.99



Sorghum Syrup Brewing Substitute for Malt

One-half to one percent of the American population suffer from an Auto-immune disorder known as celiac disease. Conventional brewing malts all contain gluten (AKA the trouble maker). Gluten is a composite of the proteins gliadin and glutenin, which contribute to an allergic response in people who have the disease.

Not all is lost for those who have to adhere to a gluten free diet though. They can still drink beer! Gluten free sugar (a replacement for malted barley) is now widely available to homebrewers.

Sorghum is a grass related to sugar cane and is grown in warm climates around the world. It yields grain that can be used as food, foliage suitable as animal fodder, and the sweet syrup known as sorghum molasses in the American south—and sorghum does not contain gluten. It is the syrup that proves suitable for a fermentation that produces a pleasant beer-like beverage with some sorghum non-fermentable components taking the

BARLEY MALT & OTHER GRAIN

We pride ourselves on keeping up with the latest arrivals on the brewing scene and nowhere is that more obvious than in our fresh grain selection. If you are a beginner at all-grain brewing, see *Brewing Quality Beers*, 2nd edition, pages 62-64.

Please ask if you wish your grain to be ground. We charge a nominal 10¢ per pound to mill the malt. Although cracked malts have a shorter storage life than whole grains, under reasonable conditions (cool and dry), they can be kept for several months. Figures in parentheses are degrees of color (SRM).

Ask us to mix your malts for the same recipe, or we will send them packaged in separate sacks.

Base Malts 1 lb.

G41	US NW Pale Ale Malt (2.6)	\$ 1.19
G85	Organic 2-Row Malt (1.8).....	1.49
G43	6 Row Pale Brewer's Malt (1.8).....	1.29
G65	German Pilsener Malt (1.8)	1.49
G61	Belgian Pilsener Malt (1.5)	1.49
G59	English Pale Malt (3).....	1.39
G53	U.S. Red Wheat Malt (2.6)	1.39
G69	Canadian White Wheat Malt (3)	1.29
G38	German Wheat Malt (2).....	1.49
G52	U.S. Rye Malt (2.5)	1.39
G81	German Kölsch (2).....	1.39

Grain Malt Mill

"Corona" Mill with high hopper

M01 \$59.99

The addition of at least one pound of Specialty malt per 5 gallons of beer will give a malt extract recipe fresh grain aromas, depth of flavor and malty after taste. Note that a recipe calling for "Crystal Malt" is the same as "Caramel 40" unless a different color value is stated.



Smoked Malt 1 lb.

G91	Briess Smoked Malt, cherry wood (5)	1.89
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Specialty Malts 1 lb.

G50	U.S. Carapils (Dextrine) Malt (1.2) ..	1.49
G87	German Acidulated Malt (2.5)	1.79
G67	German Vienna Malt (4).....	1.59
G68	German Munich Malt (6).....	1.59
G49	German Dark Munich Malt (11).....	1.59
G44	U.S. Light Caramel Malt (20).....	1.39
G77	German CaraRed® (22)	1.79
G63	Belgian Caramel Vienna Malt (21)....	1.69
G75	Belgian Biscuit Malt (23).....	1.59
G42	Canadian Honey Malt (25).....	1.59
G71	Belgian Aromatic Malt (25)	1.59
G51	U.S. Victory ® Malt (28)	1.49
G74	German Melanoidin Malt (30).....	1.59
G54	U.S. Special Roast (35)	1.59
G45	U.S. Medium Caramel Malt (40)	1.39
G76	German Caramunich ® Malt (35).....	1.79
G46	U.S. Medium Dark Caramel Malt (60) ..	1.49
G80	English Brown Malt (60)	1.69
G60	English Crystal Malt (50-60)	1.59
G47	U.S. Dark Caramel Malt (80).....	1.49
G72	U.S. Extra Dark Caramel Malt (120) ..	1.59
G64	Belgian Special B Malt (150).....	1.69
G83	English Pale Chocolate Malt (185) ...	1.69
G84	German Carafa® Chocolate Roasted Dehusked Malt (300).....	1.89
G55	English Chocolate Malt (500).....	1.69
G56	English Black Patent Malt (620)	1.69
G58	U.S. Black Roasted Barley (500)	1.59

Malting Companies:

Belgium: *Dingemans, Castle*

U.S.: *Briess, Great Western*

England: *Baird & Sons, Thomas Fawcett, Crisp*

Canada: *Gambrinus Malting, Canada Malting*

France: *Malteries Franco-Belges*

Germany: *Weyermann's, Best Malz, Global*

Malts - Full Sacks

Sack malts are either 55 or 50 lbs. Will ship with exact UPS shipping charges, please see page 31 for details.

G48B	2 Row NW Pale Malt (2.6)*	49.99
G78	Organic 2 Row Pale Malt (1.8)	69.99
G03	6 Row Pale Brewer's Malt (1.8)* ..	54.99
G25	German Pilsener Malt (1.8)	69.99
G21	Belgian Pilsener Malt (1.5)	79.99
G19B	English Pale Malt (3)	74.99
G13	Red Wheat (2.6)*	64.99
G29	Canadian White Wheat Malt (3) ..	59.99
G37	German Wheat (2).....	69.99
G12	US Rye Malt (2.5)*	59.99

*50 pound sacks

Flaked Grains 1 lb.

AD25 Flaked Oats (Unmalted)

For making oatmeal stouts.

AD31 Flaked Barley (Unmalted)

Up to a pound added to the mash of a porter or stout, will increase head retention and add body.

AD27 Flaked Wheat (Unmalted)

Also increases head retention.

AD40 Flaked Rye (Unmalted)

Distinctive crisp flavor; use 1 to 2 lbs per 5 gallons.

AD45 Flaked Rice (Unmalted)

Traditional ingredient in American lagers and some Cream Ales.

AD29 Flaked Maize (Corn)

Used in place of rice to make American Lagers and increase alcohol in light ales.

Any of the ABOVE 1 lb. each 1.99

AD39 Rice Hulls

Useful for creating a filter bed for grains which lack hulls. Use 1/2 lb. with 4-10 lbs of wheat or rye malt..... 1.59

AD43 Unmalted Wheat Berries

Use in making spiced wheat beers, Witbier. Use up to half the grain bill with malted barley and flaked oats. 1.49

Hops boiled with the wort (bittering/boiling/kettle hops) slowly release acids that bitter your beer and help preserve it. Hops added at the end of the boil, or during fermentation (aromatic/finishing hops), add aroma and fresh-hop flavor. Any hop variety can be used for either purpose.

One of the most important things about hops is that they be fresh, full of both the bittering acids and the aromatic essential oils. Keeping them that way requires protection against air, moisture, heat and light. **Therefore, all of our hops are packaged in special oxygen-barrier bags.**



Hop picking in Sonoma County circa 1890.



We print the alpha acid percentage on the hop package. This is important if you're adding hops by IBU's, rather than by weight alone. (See *Brewing Quality Beers*, 2nd edition, pp. 28-32). Alpha acid levels will vary, current alpha acids are in parentheses.

Raw Hops (Whole, flower)

Packed in 2 oz. **Oxygen Barrier bags**. \$3.99 each.

High Alpha Varieties	Medium Alpha Varieties	Low Alpha Varieties
H40 Centennial (10.1) H120R Citra (11.1) H91R Chinook (15.6) H94R CTZ (15.0) H98R Magnum (14.2) H84R Nugget (14.6) H75 Simcoe (14.1)	H59R Cascade (8.8) H64R Northern Brewer (10) H63R Perle (9.1) H99R Willamette (5.9) H62R Hallertau (6.6) H159 Palisade (8.7)	H88R Crystal (5.0) H92R Fuggle (5.1) H60R Golding (5.6) H72R Mt. Hood () H61R Saaz (4.5)

Pelletized Hops

Choose from table below. Domestic varieties are \$3.99 each. Imported and premium varieties marked with (*) are \$4.99 each. Most are packed in 2 oz. **Oxygen Barrier bags**. Varieties with (#) packed in 1 oz. package for \$2.99 each.

High Alpha Varieties	Medium Alpha Varieties	Low Alpha Varieties
H120 Citra (13.5) * H39 Chinook (11.1) H55 CTZ (15.2) H19 Magnum (14.7) H45 Nugget (13.3) H46 Simcoe (13.5) # H58 Summit (17.6) * H36 Zythos (Amarillo Substitute) (10.0) *	H06 Amarillo (9.2) * H44 Cascade (6.2) H54 Centennial (10.4) * H37 Cluster (7.9) H51 Golding (5.6) * H38 Northern Brewer (10.6) H52 Perle (8.9) * H69 Challenger (6.5) H82 Falconer's Flight 7 C's (9.9)	H65 Fuggle (5.3) * H98 Hallertau (4.0) * H53 Liberty (4.9) H42 Mt. Hood (6.1) H50 Saaz (3.0) * H49 Spalt (3.9) * H34 Strisselspalt (2.9) * H292 Styrian Golding (3.1) H96 Tettnang (6.1) * H47 Willamette (4.7)

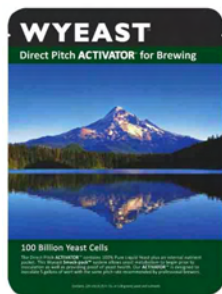


COLUMBUS, TOMAHAWK, AND ZEUS are all names for the same hop, so it is also called CTZ.

CENTENNIAL-TYPE is a blend made from 70% Cascade and 30% Chinook and is a substitute when Centennial is sold out.

Alpha Acids in parentheses are current for Spring 2013

LIQUID YEAST



Wyeast Brewer's Choice "activator packs" are a direct pitch for 5 gallons of beer. If a yeast is three or more months older than the date of manufacture, (noted on the pack), or to make 10 gallons, please make a starter.

Wyeast products are designated with (#xxxx) after the yeast name.

Wyeast 125 ml. Activator Pack
\$6.99



White Labs yeast vials, will direct pitch 5 gallons of beer. Best if used before the manufacturer's expiration date (printed on the label). For making 10 gallons, a 2 quart starter should be prepared.

White Labs yeasts are designated with (WLP#xxx) after the yeast name.

White Labs 50 ml. Vial
\$7.49

SPECIAL ORDER

Wyeast or White Lab Yeasts have large libraries to choose from on their websites. In addition to our stock inventory listed here, we can order any of their yeast or bacteria for you with an advance notice of approximately 2 weeks.

Lager Yeasts

BY01 St. Louis Lager Yeast (#2007)

Used by a well-known American brewery, this yeast to produce crisp, clean flavors. Ferments down to 40° F. (71-75% attenuation)

BY02 Oktoberfest/Marzen Lager Yeast (WLP#820)

Now available year round. (65-73%) (50-55°F.)

BY03 Bavarian Lager Yeast (#2206)

Rich, complex yeast which accents maltiness, with a touch of sweetness in the finish. Great for Bocks and Viennas. (73-77%) (46-58°F.)

BY28 Czech Budejovice Lager Yeast (WLP#802)

The yeast from Budvar. (75-80%) (50-55°F.)

BY04 German Lager Yeast (WLP#830)

For all lager beer styles. (74-79%) (50-55°F.)

BY06 Munich Lager Yeast (#2308)

This very complex strain produces exceptional, frequently prizewinning, beers. Two thirds of the fermentation should take place at 45-47°F. The rest of the fermentation should take place at 55-65°F. Requires three weeks of lagering. (73-77%)

BY08 Pilsner Lager Yeast (WLP#800)

Czech, very dry, but with a malty finish. (72-77%) Ferment cold at 50-55°F.

Mixed Style Yeasts

BY07 San Francisco Lager Yeast (WLP#810)

Warm fermenting, 65-70°F., bottom cropping lager strain. Highly flocculent. Use for Steam™ and British Ale styles of Beer. (72-76%)

BY36 German Ale/Kölsch/Alt Yeast (#1007)

Low ester, top cropping ale yeast. (73-77%) (55-68°F.)

BY29 Kölsch Ale Yeast (#2565)

From Cologne, GR. Top cropping. (73-77%) (55-60°F.)

Ale Yeasts

BY12 American (Chico) Ale Yeast (#1056)

This clean, neutral-flavored yeast can ferment to 50° F. One of the rare ale yeasts that can be used for lagers. (73-77%) (60-72°F.)

BY11 American Ale II Yeast (#1272)

Fruitier and more flocculent than #1056. (72-76%) (60-72°F.)

BY05 California Ale Yeast (WLP#001)

White Labs Chico Ale Yeast (73-77%) (68-73°F.)

BY13 London Ale Yeast (#1028)

This strain is noted for a distinct aroma identified with Worthington White Shield. (73-77%) (68-73°F.)

BY18 London Special Yeast (#1968)

"Fuller's" style ale strain. Needs a lot of agitation to keep yeast working. (67-71%) (64-72°F.)

BY15 English Ale Yeast (WLP#002)

Best for Extra Special Bitter and ales with some residual sweetness. (63-70%) (65-68°F.)

BY14 British Ale (#1098)

Whitbread. (73-75%) (64-72°F.)

BY19 Irish Ale Yeast (#1084)

A richly complex yeast with buttery overtones. Perfect for stouts and porters. (71-75%) (62-72°F.)

... Ale Yeasts Cont.

BY24 Irish Ale Yeast (WLP#004)

Good yeast strain for all dark ales. (69-74%) (65-68°F.)

BY17 Edinburgh Ale Yeast (WLP#028)

Versatile, for malty scottish ales. (70-75%) (65-70°F.)

BY22 Burton Ale (Porters and Stouts) Yeast

(WLP#023) Excellent for IPA, bitters, porters and stouts. (69-75%) (63-70°F.)

Wheat Yeasts

BY26 American Wheat Yeast. (#1010) Dry, crisp top cropping yeast, also good for Kölsch/Alt beer. (74-78%) (58-74°F.)

BY20 Bavarian Wheat Blend (#3056) A top-fermenting neutral ale strain and a Bavarian wheat strain for a subtle German style wheat beer. (73-77%) (64-74°F.)

BY43 Belgian Witbier Yeast (#3944) Produces a complex flavor profile with a spicy phenolic character and low ester production. Ferments fairly dry with a finish that complements malted and unmalted wheat and oats. (72-76%) (62-75°F.)

BY44 Hefeweizen Wheat Yeast (WLP#300) Will produce the traditional clove/banana esters associated with German wheat beers. Retains the cloudy appearance of that style. (72-76%) (68-72°F.)

Belgian and Strong Beer and Wine Yeasts

BY45 Belgian Saison I Yeast. (WLP#565) With Slightly sweet, peppery and spicy. (65-75%) (68-75°F.)

BY41 Belgian Lambic Yeast blend. (#3278) With Lactic bacteria for making gueuze, fruit beers and faro. (65-75%) (63-75°F.)

BY37 Scottish Strong Ale Yeast (#1728)

For malty, strong Scotch ales. Very complex and flavorful. (70-75%) (65-70°F.)

BY40 Belgian Abbey Ale Yeast II (#1762)

High gravity yeast with distinct warming character from ethanol production. Slightly fruity with dry finish. (73-77%) (65-75°F.)

BY38 Trappist High Gravity Ale Yeast (#3787)

Robust, top fermenting, flocculent, high alcohol tolerance. A fairly phenolic yeast strain excellent for higher gravity, abbey-style ales. (71-75%) (64-78%)

BY23 Belgian (Trappist) Ale Yeast (WLP#500)

Top fermenting, flocculent, high alcohol tolerance. Use for Belgian Dubbels, Trippels and some British Barley Wines. (73-78%) (65-72°F.)

BY39 San Diego Super Yeast (WLP#090)

Super clean, super-fast fermenting strain. Neutral in aroma/ flavor, but alcohol-tolerant and very versatile. (76-83%) (65-68°F.)

BY10B Pasteur Champagne Wine Yeast (#4021)

A strong yeast recommended for Meads, and Barley Wines. Fully attenuative with wide temperature range.

DRY YEAST

Pitch dry yeast on top of the cooled and aerated wort at the rate of 2-3 grams per gallon. Come back to the fermentor about 4-12 hrs. later and shake or stir the wort to distribute the active yeast.

If you wish to activate the yeast, do so in water at 95° F. and allow it to rehydrate for only 10 minutes before pitching into the wort. After that time the unpitched yeast will die from a lack of nutrients.

Dry Beer Yeasts	Grams	Price
BY33 Nottingham Ale	11	\$4.50
BY31 Coopers Ale	15	\$3.50
BY16 SafAle American (US-05)	11.5	\$3.99
BY34 SafAle English (S-04)	11.5	\$3.99
BY32 SafLager (S-23)	11.5	\$5.99

Dry Wine Yeast (Also refer to our wine catalog for a full listing of wine yeasts.)

WY23 **Prise de Mousse**
(Sodas, high alcohol beers, meads) 10 \$1.99

Dry Distillers Yeast

BY35-UR **Turbo Yeast** 240 \$5.99
(mixture of yeast and nutrients for difficult fermentations)



BREWING, FERMENTING, AND PRESERVING AIDS

Brewing Salts

QR25 Gypsum (Calcium Sulfate)

A natural water-hardening mineral, gypsum gives permanent water hardness to pale ales and some other light beers. 2 oz.\$.99

QR28 **Powdered Chalk** (Calcium Carbonate) Temporary hardness for smoother dark beers. 1 oz.\$.69

QR22 **Epsom Salts** (Magnesium Sulfate)
Used in very small quantities in pale ales. 2 oz.\$.69

QR30 **Calcium Chloride**
Added to beers to increase malt flavor instead of salt. 2 oz.\$.99

QR51 **Water Treatment & Nutrient**
All-in-one mineral and nutrient additive to harden water for ales. Use a teaspoon or two per 5 gallons. 1/2 oz.\$.69

Other Additives

A19 **Lactic Acid**
Use 2 teaspoons per 5 gallons in the sparge water to avoid an astringent flavor in all-grain beers. Adjusts pH. 5 oz.\$4.99

Acids for Meads

A05 **Citric Acid** 2 oz.\$1.69
A14 **Malic Acid** 2 oz.\$1.99
A10 **Tartaric Acid** 2 oz.\$2.99

Nutrients

QR11 **Yeast Nutrient**
(Diammonium Phosphate)
A basic mineral nutrient, for low-malt worts. One tsp. in five gallons. 2 oz.\$1.99

QR36 **Beer Yeast Nutrient** (Wyeast)
Complete Yeast Nutrient packed exclusively for brewers. Use 1/2 teaspoon per 5 gallons at the end of the boil. Vastly improves yeast viability. 1.5 oz Vial\$2.99

QR50 **Mead Yeast Nutrient**
Special blend of the minerals and nutrients needed for honey wines or beers. Use 2 oz. per 5 gallons. 2 oz.\$2.99



Fining and Finishing

FN09 Irish Moss

Use up to one Tablespoon/ five gallons, last half of boil to clarify beer. 1 oz.\$ 1.99

FN08 Whirlfloc®

Kettle Coagulant with prepared Irish Moss and Sodium Bicarbonate. No need to pre dissolve. Add to kettle during final 15 minutes of boil. Single tab in kettle treats 3 gallons. 20 tablets\$2.99

FN43 Clarity Ferm

Fining aid to prevent chill haze in beer. Add 5ml to 5 gallons cooled wort. 5 vials of 5ml\$11.99

Amaylase Enzyme

1 tsp. converts 5 lbs. of mash into sweet wort in 15 min. Breaks 1,4 linkage in starch during liquefaction, producing dextrin and a small amount of maltose. Leaves 1,6 links, therefore self-limiting. Use for starch problems in storage or mash tun. FN27 1 oz.\$5.99

FN03 Fining Gelatin

One tsp. soaked 30 minutes in 10 oz. water, then heated to dissolve, will help clarify beers. 1 oz.\$1.99

FN07 **Isinglass** One tsp. treats 5 gallons prior to lagering. 1 oz.\$8.99

FN22 Polyclar VT®

Chillproofs beer by remove excessive polyphenols. 1 oz.\$1.99

Highest Quality Flavorings



"Scharffen Berger" Cocoa

6 oz. tin of pure cocoa for an enticing dark ale or just great hot chocolate.

FL33 6 oz.\$10.99



"Wolf" Extra Dark Roast Coffee

Fresh ground coffee to add to stouts or just brew a warm cup of great coffee.

FL61 8 oz.\$8.99

FL05 Brewers' Licorice

Boil with wort. Great for Stouts. One stick..... \$1.99

B32 Oak Cubes

Cubes of French Medium Toasted Oak. Use 2 or 3 oz. in 5 gallons. 8 oz.\$12.99

FL02 Vanilla Bean

Bourbon Vanilla beans are one of the highest quality vanilla beans on the market.\$1.99

Sugars

Corn Sugar (Dextrose)

AD14 Premeasured for priming 5 gallons of beer. 6 oz.\$1.69
AD15 5 lbs.\$6.99
AD16 10 lbs.\$11.99

Rice Extract

If you owned a large American brewery that used adjuncts, and if you wanted to make the very best American light lager-style beer you could make, you'd probably use rice as your adjunct of choice, rather than corn. Rice (and rice extract) give beer a particularly crisp and clean taste.

AD18 1 lb.\$4.59

Dextrin Powder

Dextrins occur naturally during the mash if you are using brewer's malts. Added to extract beers (especially nice in dark beers) the "full mouthfeel," or "body" is increased.

AD23 4 oz.\$1.49

Lactose (Milk Sugar)

This is a moderately sweet, but unfermentable, sugar. It is primarily used for sweetening porters and stouts. It will form a haze in light colored beers.

AD20 1 lb.\$2.99

Belgian Candi Sugar

Fermentation sugar for Belgian style beers, crystallized beet sugar.

AD11 Clear.\$5.99

Belgian Candi Syrup Dark I

Dark - 1 lb. The preferred sugar for Belgian Dubbel type beers.

Use 1 - 3 lbs. per 5 gallons.

AD02\$8.99

Belgian Candi Syrup Dark II

Extra Dark- 1 lb The richest flavored sugar for Belgian Dubbel type beers.

Use 1 - 3 lbs. per 5 gallons.

AD03\$8.99

Honey

Raw Unpasteurized Honey

Make award winning meads with these honeys. 12 lb. tubs. Choose from:

AD41 Orange Blossom\$79.99

AD44 Raspberry\$79.99

Honey Continued

Purest grade, light Clover Honey

The basic ingredient for Mead, can also be added in 1-2 lbs for honey beers and home brewed sodas.

AD33 1.5 lbs.\$7.99

AD34 3 lbs.\$14.99

AD10 12 lbs.\$54.99

Fruit

Vintner's Harvest Fruit Products

Use one 49 oz. can per 5 gallons beer or 2 to 3 cans to flavor a mead.

FL44 Raspberry \$19.99

FL47 Blackberry..... \$21.99

FL46 Apricot \$19.99

FL48 Dark Sweet Cherry..... \$14.99

Fruit Flavorings

Add 2 to 4 oz. per 5 gallons of beer at bottling, to produce excellent *Lambic-style or other flavored beers*. Also used in our fruit ale kits.

FL28 Peach, FL43 Apricot,

FL25 Blueberry, each 4 oz.....\$6.99

FL35 Blackberry, 2 oz.\$4.99

FL26 Raspberry, 4 oz.\$10.99

Spice Rack

Use these great spices for Holiday, Belgian and Gruit Ales! You can even brew a beer with no hops at all!

FL40 Bitter Orange Peel, 1 oz \$1.99

FL52 Sweet Orange Peel, 1 oz.....\$2.75

FL17 Coriander Seed, 1 oz.\$1.99

FL18 Cardamom Seed, 1 oz.\$2.50

FL55 Cinnamon Sticks, 2 sticks ..\$1.69

FL23 Sarsaparilla, 2 oz.\$3.99

FL04 Dried Mugwort. Use one ounce per 5 gallons for a Gruit Ale. Boil 60 minutes. 1 oz.\$2.29

FL15 Paradise Seed, 2 g\$1.99

FL19 Juniper Berry, 1 oz.\$1.99

FL05 Licorice Stick, 1 stick\$1.99

EQUIPMENT

Air Locks and Stoppers

FST04 Three-Piece Fermentation Air Lock. Easiest to clean.	\$1.29
FST05 S-Type Air Lock	\$1.29

Drilled Rubber Stoppers

FST12 #6 (fits one gallon jugs).	\$.99
FST13 #6 1/2 (fits glass carboys).	\$1.19
FST14 #7 (fits Old Carboys and 500 ml. Flasks).	\$1.29
FST17 #9 (fits 1 Liter Flasks).	\$1.69
FST19 #10 (fits PET Carboys).	\$2.39
FST21 #11 (fits Kegs, 2" opening).	\$2.89

FST36 Carboy Cap (fits 3,5,6 gallon carboys) Seals up or takes air lock.	\$2.50
FST38 Carboy Cap (fits 6.5 g carboys)	\$2.99

Fermentors and Accessories

Glass Carboys (see pg. 31 for shipping)

GL02 3 Gallon.	\$33.99
GL01 5 Gallon.	\$40.99
GL40 6 Gallon.	\$48.99
GL04 6.5 Gallon.	\$49.99

PET Plastic Carboys

Available in original, ribbed design, made in the USA by Better Bottle™(BB) or smooth sided, made in China or Canada by Vintage Shop (VS) . Either choice can boast that there is no taste, no odor, non-porous, light and unbreakable. Close with a #10 stopper and airlock or carboy cap.

GL57 3 Gallon VS.	\$24.99
GL55 3 Gallon BB.	\$24.99
GL45 5 Gallon BB	\$29.99
GL13 6 Gallon BB.	\$31.99
GL58 5 Gallon VS.	\$27.99
GL59 6 Gallon VS.	\$28.99

P01 Plastic Fermentor

(Food Grade Bucket)	
6.6 gallons	\$11.99

P03 Plastic Lid for bucket (with hole) #6.5 stopper fits the hole	\$2.99
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P02 Plastic Lid for bucket (no hole)	\$2.99
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SP24 Bottling Spigot

Spigot, plastic, 1" hole x 5/16" drain	\$4.99
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SP01 Drum Tap

Spigot, plastic, 1" hole x 5/8" drain, tolerates heat for mashing	\$6.99
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Carboy Draining Stand, fits all carboys.



QE44 Carboy Draining Stand

Holds all carboys.....	\$8.99
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QE34 Carboy Handle

(3,5,6 gallon only)	\$7.99
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QE47 Carboy Handle

(6.5 gallon only)	\$7.99
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MS02 Carboy Carrier,

Brew Hauler	\$14.99
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QE49 120 Volt Brew Belt

Wraps around any plastic fermentor to keep a constant warm temperature during fermentation.	\$28.99
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Stirring Tools

MS19 18" Wooden Spoon.	\$3.99
MS18 21" Stainless Steel.	\$8.99
MS07 34" Wooden Paddle.	\$11.99
MS11 36" Wooden Mash Rake with heavy frame	\$24.99
MS01 36" Stainless Mash Paddle,	\$28.99



Transfer/Siphon Equipment

Siphon Hose

HS03 5/16" i.d. Per foot.	\$.69
HS04 3/8" i.d. Per foot.	\$.69
HS14 7/16" i.d. Per foot.	\$.79

Plastic Hose Clamps- Shut off type

FST02 Small 5/16" or 3/8"	\$1.69
FST03 Large 1/2"	\$2.99

Manual Siphon Starter

Large 60 ml. Syringe can pull enough volume through 5/16" hose to start siphoning. MS20	\$5.99
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NEW In Line Siphon Starter

Sanitary Filter (barbed for siphon starting) F500	\$3.99
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Auto Siphon Starter

Racking tube inside a cylinder creates a vacuum as it is pulled. Plunge until the racking tube and siphon hose are filled. Order hose to match separately.

QE42 5/16" or 3/8"	\$14.99
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QE43 1/2"	\$18.99
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Bottle Filler

QE17 Plastic straight tube with filler end. 5/16" or 3/8" hose.	\$4.99
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QE02 Plastic. Same as above with spring	\$4.99
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Racking Tubes

Downflow tip leaves sediment behind.

QE11 Plastic with curved top, for 3/8" or 5/16" hose.	\$3.99
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QE12 Same for 1/2" hose.	\$5.99
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Racking Tube Holders

Clips to neck of jug or top of bucket to hold the racking tube at any height.

For 5/16" QE15	\$2.99
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For 1/2" QE35	\$2.99
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For Auto-Siphon 5/16" QE14	\$3.99
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For Auto-Siphon 1/2" QE16	\$3.99
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Sampling Thieves

Removes samples of beer or wine.

TE49 Plastic 19"	\$5.99
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TE48 Plastic 3 piece easily separates for cleaning 18"	\$7.99
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TE51 Glass, 12"	\$12.99
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TE77 Glass, 18", w / Ring Handle	\$49.99
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Straining Equipment

Nylon Mesh Grain Bags (Boilable)

PS31 14"x17" COARSE Mesh/drawstring.	\$6.99
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PS44 14"x17" FINE Mesh/drawstring.	\$7.99
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PS32 12"x19" FINE Mesh.	\$4.99
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PS16 20"x 22" FINE Mesh	\$5.99
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PS15 24"x20" COARSE Mesh fits buckets for mashing/drawstring	\$11.99
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PS20 26" x 28" COARSE Mesh/drawstring	\$14.99
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Strainers Continued...

- PS18 Nylon 8"x 9". Hop Bag.
FINE Mesh/ with drawstring..... \$3.99
PS34 Nylon 2"x24" Hop bag. \$7.99
PS13 Muslin. Hop bag. \$6.99
PS17 Cheesecloth Square yard. \$2.59

QE39 Strainer with Handle

Large 10 1/4" Bowl

Single mesh stainless steel with large wood handle. \$19.99

Plastic Funnels

- QE24 Large, for carboy 8".....\$10.99
QE22 Medium, for flasks 6"..... \$4.99
QE21 Small, 4". \$2.99



Boiling Kettles

- K06 20 qt Kettle.....\$59.99
K16 30 qt Kettle\$99.99
K04 32 qt Kettle, Polar Ware (USA)\$269.99
K11 60 qt Kettle, Heavy Duty (China) comes with lid, and 1/2" Stainless Ball Valve.....\$289.99
K01 60 qt Kettle, Polarware (USA) comes with lid, and 1/2" Stainless Ball Valve (shown above).....\$329.99

Mash Tun

SP03 "Santa Rosa" Lauter Tun

Plastic bucket -6.6 gal. and lid with 24"x 20" nylon mesh bag and heat tolerant spigot. Holds up to 13 lbs. of cracked malt for sparging.\$28.99



60,000 BTU Burner



Outdoor Propane Burner

Outdoor cooker for brewers and mead-makers. Stands 23" high, with supplied leg extensions, hose and pressure regulator that adjusts from 20 to 60 thousand BTU for variable output of flame. Precision tuned heat quickly boils even 10 gallons of wort. (Propane tank not included.) Unlike single jet cookers, will not scorch the pot or the floor.

SP04\$114.99

Wort Chillers



Copper, immersion type with brass garden hose fittings for safe cooling. Pitch yeast 15-20 minutes after the end of boiling.

SP10 3/8" x 25' Copper \$64.99

SP11 1/2" x 50' Copper\$119.99

For more all grain brewing equipment, see Build Your Own Brewery on page 28.

5 & 10 gallon

All Grain Breweries are on page 11.

Cleaners and Sanitizers

T-D-C™ Cleaner

Triple compound cleaner. Acid based, safe for hands, medium foaming, easy to use with cold water for sparkling clean carboys and all your brewing supplies. Use 1-2 tsp. per 5 gallons.

CS26 4 oz.\$4.99

CS31 32 oz.\$13.99

Proxycarb

Percarbonate cleaner with no phosphates. Use 1 Tablespoon per gallon.

CS29 1 lb.\$4.99

BLC™ Beer Line Cleaner

A most effective cleaner for keg systems.

CS06 32 oz.\$14.99

KEG79 Keg Cleaning Kit with hand pump.\$44.99

PBW 5 Star Cleaner

Brewery cleaner actively removes beer deposits. Use 3/4 - 2 oz. per 5 gallons water. CS80-B2 2 lb. Tub\$11.99

B-T-F™ Iodophor Sanitizer

Iodine based, no rinse. Use 1 Tablespoon per 5 gallons water. Contact time is 2 minutes, not necessary to air dry.

CS02 4 oz.\$5.99

CS03 32 oz.\$17.99

Star San 5 Star Sanitizer

Acid sanitizer with foaming action. Use 1 oz. per 5 gallons of water, keep wet for 1 minute, do not rinse, allow to air dry.

CS57 8 oz.\$11.99

CS56 32 oz.\$24.99

Brushes

QE29 Beer, wine bottle brush. \$4.99

QE30 Carboy brush.\$5.99

QE28 Air Lock Brush.\$2.99

QE01 Nylon Keg Downtube Brush (for scrubbing inside of vinyl hose)\$7.99

QE59 Cornie Keg brush.\$19.99



TESTING EQUIPMENT

Sugar Testing

TE40 Hydrometer

A 9" saccharometer (sugar tester), has Specific Gravity, Brix (Balling), and Potential Alcohol scales..... \$10.99

TE42 Hydrometer with Thermometer

Three-scale, 10 1/2". \$15.99

TE23 Refractometer

0-40°Brix, ATC, comes with a carrying case\$79.99

TE32 Refractometer Solution

To calibrate your meter. 2 oz.

20° Brix\$3.99

Labware

TE07 1 ml. Pipet. Each. \$.99

TE62 10 ml. Pipet. Pack of 20. \$17.99

TE36 10 ml. Pipet. Each. \$1.29

TE86 100 ml. Graduated Beaker

Polypropylene..... \$.99

TE87 400 ml. Graduated Beaker

Polypropylene. \$1.99

TE92 1000 ml. Graduated Beaker

Polypropylene. \$2.99

TE83 1000 ml. Polypropylene Beaker

w/handle. \$10.99

TE84 2000 ml. Polypropylene Beaker

w/handle. \$12.99

TE85 3000 ml. Polypropylene Beaker

w/handle. \$20.99

Plastic Hydrometer Test Jars

TE55 Plastic 10" \$4.99

TE56 Plastic 14" \$5.99

Glass Graduated Cylinders or Test Jars

TE08 Graduated Cylinder 100 ml.\$12.99

TE111 Graduated Cylinder 250 ml.\$14.99

TE112 Graduated Cylinder 500 ml.\$19.99

Borosilicate Glass Erlenmeyer Flasks

Great sizes and easy to sanitize, use for yeast starters alone or use with stir plate.

TE10 500 ml. \$8.99

TE09 1 Liter..... \$14.99

TE127 2 Liter..... \$18.99

Stir Plate

TE106 Stir Plate

Magnetic stir plate for propagating billions of yeast cells, includes one stir bar.

..... \$69.99

TE128 Stirring Bar 1 1/2" x 5/16"

Replacement bar for Magnetic Stir Plate and Erlenmeyer Flask, Teflon coated, center ring.

..... \$9.49

Scale

TE01 Digital Scale

Portable battery powered scale from *Escali*.

Switches easily between 1-5000g, 0.1-16 ozs. and 1-11 lbs. Tare function and flat top for easy cleanup..... \$42.99



Thermometers

TE37 Floating Glass Thermometer 8"

(-5-220 °F.). Red spirit alcohol..... \$8.99

TE53 Spot Check Thermometer

Dial Top 1" with 5" Stem, recalibratable, Type 304 Stainless. 0-220 °F.

Pocket clip \$7.99

TE50 Laboratory Thermometer

Dial Top 1 3/4" with 8" Stem. Clips to sides of kettles or carboys, Stainless, calibratable, 0-220 °F.

..... \$24.99

TE90 Laboratory Thermometer

Dial Top 2" with 12" Stem. Clips to sides of kettles or carboys, Type 304 Stainless, calibratable, 0-220 °F.

..... \$34.99

TE64 Threaded Thermometer with 4" Probe

Fits Kettles on page 11. (40-220°F.). \$39.99

TE63 Refrig/Freezer Thermometer

(40-80°F.). \$8.49

Thermometers continued...

TE81 Fermometer™ LCD 36° - 78°F,

stick'em to carboys, buckets. \$2.99

TE80 Refrig/Freezer Controller

Temperature thermostat, 30-80°F.

..... \$74.99

pH

TE73 Waterproof pHTestr 20

Automatic temperature compensated, (ATC). Waterproof and dustproof. Offers an electrode connection with replaceable electrode to extend life of meter. ±0.01. \$104.99

TE35 Replacement Electrode

for Waterproof pHTestr 20.

..... \$66.99

TE74 Hanna pH Tester

Manual 2 point calibration, ±0.1 Accuracy at 68°F.

..... \$69.99

TE72 pH Buffer Powder Capsules (pH 4,7)

To calibrate your meter. \$3.99

TE206 Complete PH Buffer Solutions Kit

with color coded 4 oz. jars of pH 4 and pH 7. To calibrate your meter. \$6.99



When weighing small amounts of material use light weight paper or plastic cups rather than heavy glass.



BOTTLING

Glassware

Beer and Mead Bottles

All bottles are new glass.

GL06 Long neck brown glass, 22 oz., 12 per case	\$14.99
GL07 Long neck brown glass, 12 oz., 24 per case	\$15.99
<i>E-Z Cap</i> smooth sided, clip top bottle, 1/2 liter, 12 per case, Brown glass. (GL26)	\$34.99
<i>E-Z Cap</i> smooth sided, clip top bottle, 1 liter, 12 per case, Brown glass. (GL51)	\$42.99
GL84 Growler bottle with handle and flip top, 2 liters, each. (Check for availability, not always in stock.)...	\$10.99

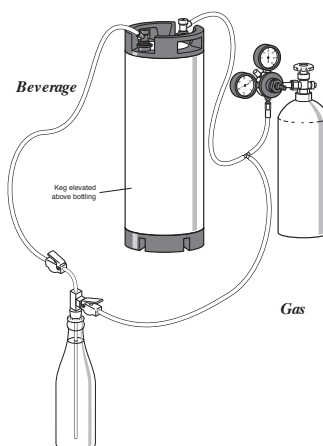
Cam and Groove Quick Connect Stainless Fittings

PB60 Type A.	\$5.49
Female 1/2" NPT to Male Adapter.	
PB61 Type B.	\$8.49
Male 1/2" NPT to Female Adapter.	
PB62 Type C.	\$8.49
Male 1/2" Hose Barb to Female Adapter.	
PB63 Type D.	\$8.49
Female 1/2" NPT to Female Adapter.	
PB64 Type E.	\$4.49
1/2" Hose Barb to Male Adapter.	
PB65 Type F.	\$4.49
Male 1/2" NPT to Male Adapter.	



Scan with your QR reader on a smartphone for a diagram of Cam and Groove connectors.

Counter Pressure Bottle Filler

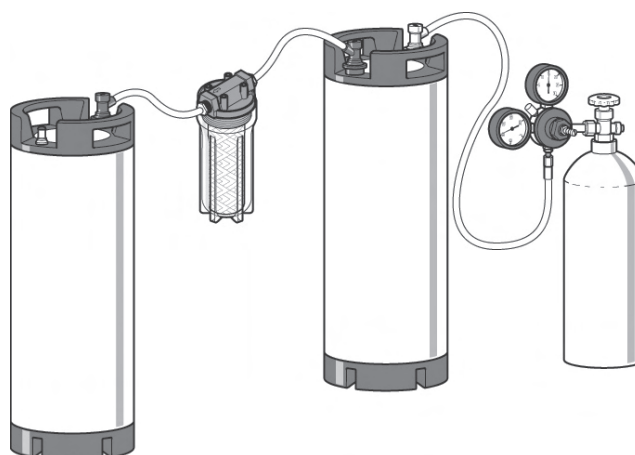


QE04 Counter Pressure Bottle Filler. Dual valve design features lowest O₂ pickup of any bottle filler. Now all stainless steel on the beverage side. \$84.99

The "Blast" Great Bottle Rinser



QE45 The "Blast" Bottle Rinser Automatic valve, fits standard 3/4" faucet or garden hose. \$13.99
QE09 Bottle Tree Drains and stores 90 bottles.... \$39.99
QE08 Avvinatore Bottle Rinser Pumps sanitizer and drains back into reservoir. Can attach to bottle tree. \$18.99



Cappers, Bottle Caps, and Seals

Crown Cappers:

BE05 Emily Capper (Two lever capper)	\$18.99
BE07 Super M Capper (Bench capper).	\$42.99

Crown Caps:

BE11 Super Smart Cap™ Absorbs oxygen in the headspace, and prevents oxygen transfer through cap. Colors often available include: Orange, Blue, Silver, Green, Red, or Black (Note: list alternate choice, in case first choice is unavailable.). 144 caps. \$4.99

Rubber Gaskets:

These replace the rubber seals on Grolsch-type clip-top bottles. Better than the original. **BE13** 25 seals \$2.99

Complete Grolsch-tops

Fits 1/2 liter and liter Grolsch bottle. Comes with gasket. **BE17** each \$1.59

Filtering

10" Cartridge Filter Housing

Clear, poly housing with 3/4" inlet and outlet, easy to sanitize.

F03 \$44.99

Hose Barb for Filter Housing

Specify: **PS01** 1/4" or **PS02** 3/8" hose.

Need two. \$1.29

PS03 Hose barb for filter 1/2" \$1.99

10" Filter Cartridge

.5 micron nominal rating, removes solids, clarifies, will process up to 25 gallons.

Disposable. **F12** \$14.99

Push your beer through a cartridge filter using CO₂.
 See keg parts on pg. 27.



Simplified Kegging or *Burch's Law*

by Byron Burch & Robyn Burch-Rosemon

Home brewers sometimes show an aversion to the practice of bottling. Over the years, we've been able to codify that into something we like to call Burch's Third Law: *"The tendency of a home brewer to look favorably on the idea of kegging homebrew is directly proportional to the number of bottles washed during the course of one's home brewing career."*



One of the best draft containers for homebrewers is the five-gallon soda syrup (corny) keg. The first reason is the convenience of the five gallon size. Five or ten gallons tends to be the normal batch size for most of us, and that makes it almost too easy to resist, especially for those who really want no more bottle washing whatsoever. That's not to mention that half or quarter barrel kegs are harder to carry around. There's also the convenience of needing only a few standard tools, instead of special wrenches, and the speed with which the quick disconnect fittings allow you to make an emergency change when you run out of beer. Most important of all, is the fact that this is an excellent system for draft beer, however you choose to work with it.

More than one way is available to carbonate your beer. The first is to "bottle" condition your keg. In this case, you prime your beer in the keg after fermentation is finished using half a cup of corn sugar. The keg is then sealed up and set aside for a week or two until your beer has had a chance to fully carbonate. The disadvantage of keg conditioning is that the yeast has to be active in the keg in order to carbonate the beer. Because the yeast is converting the sugar into CO₂, a new sediment layer is formed. There are two ways to avoid getting sediment into your glass. You can either cut an inch off of the bottom of your beverage downtube so that it rests above the sediment layer or assume that you will discard the first several pints of cloudy beer.

Eventually, most homebrewers move to force carbonation. There are a number of reasons to force carbonate the keg. First of all, this practice leaves the keg virtually sediment-free, which means you can leave the downtube uncut, and still draw beautifully clear beer right to the bottom. Second, the kegs are fully carbonated in three days time, and around any house, that can be an important consideration.

Bottling some beers may still be important for parties, club meetings, or competitions. If you would like to have some bottled beer on hand, for such events, siphon as much of the beer as you would like to serve on draft into the keg and reserve the rest to bottle. Make sure you are ready to bottle on the same day that you are kegging. We recommend you use 2 1/2 Tablespoons of corn sugar for each gallon you are bottle conditioning.

(Bottling instructions can be found on page 9).

Rinse out, clean and sanitize your keg before filling it. Use either TDC™, Proxycarb or PBW™ for cleaning. Use BTFT™ or Star-San™ for sanitizing. You can find the rates of use for each of these products on page 21 of this catalog. While the sanitation of the kegs is underway, go ahead and take steps to sanitize all of the equipment you will be using for moving the beer including through your beverage lines. At this point, you're ready to keg!

Elevate your secondary fermentor to siphon your beer into the keg. Measure the temperature with a sanitized thermometer. Keep the temperature recorded to refer to later. Seal the keg lid so it's ready for carbonation. To attach your beer line and spigot, begin by heating up some water on your stovetop or in the microwave and put the ends of the tubing in the hot water. The 3/16" tubing we recommend is slightly smaller than the 1/4" hose barbs on the spigot and the black beverage disconnect. Heating it will allow you to easily slip the tubing over the hose barbs. Now attach the gas line to the regulator and secure a tight fit with a stainless steel clamp. Then attach the other end of tubing to the (gray) gas quick disconnect and secure tubing with a stainless steel clamp. Hook up the gas to the IN post of the keg and turn on the gas at low pressure.

When gas stops rushing into the keg, turn off the valve and vent the keg by pulling up on the pressure release valve on the top of the keg. Then do the same sequence again. Each time the keg is vented, you are cutting the oxygen content of the airspace by half, and by half again, until you have a relatively pure CO₂ atmosphere.

Kegs must be kept cold and under constant pressure for good draft flow. First, turn the screw on your gas regulator clockwise until you reach your desired pressure. Having the beer as cold as 38 °F. and setting the gauge at 12 PSI is a great place to start. If your temperature isn't that cold, adjust your pressure with the carbonation chart in *Brewing Quality Beers* on page 109. It will provide you with more details regarding the relationships of pressure (PSI), temperature, and carbonation levels.

Even with the beer very cold, you need intimate contact between the gas bubbles and the beer to get the gas dissolved. With the gas on, turn the keg upside down and rock it back and forth for 5-10 minutes. This allows the CO₂ to bubble out of the gas inlet tube and on up through the beer. Now you can disconnect the keg and put it back in storage (cold storage is preferable) for three days. The beer can then be hooked back up to the CO₂ dispensing system.

Go ahead and assemble your dispensing system once the beer has had a chance to carbonate, usually several days to a week. Vent the keg to release any built up pressure. Attach the beverage quick disconnect to the OUT post on the keg. Attach the gas quick disconnect to the IN post on the keg. Once everything is connected put everything back into the refrigerator.

Set the delivery pressure after you turn on the gas and open the gas valve on the regulator. Adjust the regulator screw to the appropriate PSI. About 12 PSI is usually a good place to start. Dispense and adjust the PSI up or down according to the level of carbonation you desire. Now you can sit back and enjoy your very own draft beer as well as your newly found freedom away from the tiresome task of bottling. ***On behalf of all of us who have also made the leap we are happy to welcome you to Burch's Third Law of home brewing.***

KEGGING SUPPLIES

Soda Keg Systems

A complete setup includes: one syrup keg, one each quick disconnect gas and beverage fittings, 10 ft. of pressure hose, four clamps, on/off tapper faucet, dual-gauge regulator and an empty, new 5 lb. CO₂ bottle. Used kegs supplied with a replacement set of O-rings.

- BN30 New 5 Gallon Keg System...\$349.99
BN32 New 3 Gallon Keg System...\$349.99
BN31 Used 5 Gallon Keg System...\$264.99



Soda Kegs (Corny Kegs)

- KEG106 Used 5 Gal Pin-Lock Keg ...\$69.99
KEG09 New 5 Gal Ball-Lock Keg . \$149.99
KEG11 New 3 Gal Ball-Lock Keg ...\$149.99

Commercial Kegerator Kit

Turns a refrigerator into a kegerator. All you have to do is add a refrigerator and buy the beer! CO₂ bottle, dual-gauge pressure regulator, American Sanke single valve tap, beer shank 4 1/8", chrome beer faucet, faucet knob, 8 feet of tubing, clamps and tail pieces. BN37.....\$279.99

Accessories

Carbonating Stone (Stainless Steel)

- KEG113 Stone with 1/4" SS flare adapter attaches to the gas inside down tube of soda kegs to finely disperse CO₂ allowing you to instantly carbonate a cold keg. Also need 2 feet of 1/4" tubing to attach to inlet downtube.... \$34.99
KEG38 Gas-Inlet Downtube to make connection of stone easier. \$5.99

- KEG18-30 Dual-Gauge Regulator with check valve, shut off and 3/8" hose barb.... \$69.99

Counter Pressure Bottle Filler

Unique dual valve design has lowest O₂ pickup of any filler. It is simple and very easy to use. See sketch page 23.

- QE04 \$84.99

Soda Keg Supplies

"Pin" Coke® or "Ball" Pepsi® Quick Disconnects:

- KEG14 Ball Beverage - 1/4" Barb... \$6.99
KEG13 Ball Gas - 1/4" Barb \$6.99
KEG15 Pin Beverage - 1/4" Barb... \$6.99
KEG16 Pin Gas - 1/4" Barb \$6.99
KEG69 Ball Gas - 1/4" MFL \$7.99
FX51 Ball Beverage - 1/4" MFL.. \$9.99
KEG81 Pin Gas - 1/4" MFL \$6.99
KEG60 Pin Beverage - 1/4" MFL .. \$7.99
KEG101 S/S 1/4" MFL tailpiece \$5.99
(1/4" MFL fittings thread to KEG100)
KEG100 Stainless 1/4" FFL to 1/4" hose barb connector with barb and nut..... \$1.99
KEG99 Pin-Lock Socket for 3/8" ratchet - to remove keg body connectors \$29.99

O-Rings

- KEG41 O-Ring Set for (Ball) Kegs ... \$3.50
KEG41PIN O-Ring Set for (Pin) Kegs \$3.50
KEG05 O-Ring for Tank Lid (fits all). \$1.50
KEG02 O-Ring (Ball) for Tank Plug \$0.50
KEG03 O-Ring (Pin) for Tank Plug ... \$0.50
KEG04 Down Tube O-Ring (fits all).. \$0.50

Replacement Poppets

- KEG29 Cornelius style or KEG30 Firestone style \$6.99
KEG17 On/Off "Tapper" Faucet \$5.99
HS01 3/16" Beverage Hose (per ft.).... \$0.59
HS02 1/4" Gas Hose (per ft.)..... \$0.59
PS37 Stainless Three-Way Splitter, (divides gas to service two tanks) \$3.99
KEG19 Plastic Three-Way Splitter \$1.50
KEG20 Stainless Four-Way Splitter ... \$5.99
KEG33 Tank Lid Relief Valve \$9.99
KEG08 Hose Clamps \$0.89
KEG58 Petrol Gel Lube, (great for O-rings) 4 oz. Tube..... \$5.99

Faucet Delivery

- KEG56 Faucet attaches with quick connects to corny kegs (specify Ball Lock or Pin Lock) \$44.99
KEG71 Faucet System with Shank for wall/door (pictured) with hose barb. \$54.99



Draft Service Supplies

- KEG57 New Aluminum 5 lb. CO₂ bottle, Empty, fill locally. \$99.99
FX53 Faucet, Chrome \$24.99
FX20 Perlick Beer Faucet, Stainless - seat forward design \$59.99
FX54 Faucet Knob (Black plastic) ... \$2.99
KEG61 Red Handle Faucet Wrench.... \$5.99

Draft Service Supplies continued

- KEG52 Wye, gas splitter (Brass) \$11.99
KEG53 Check valve 1/4" w/shutoff ..\$12.99
KEG77 Single Faucet Tower\$89.99
KEG37 Double Faucet Tower\$159.99
KEG59 Drip Tray (no drain) Wall Mount S/S 6" x 3" for Kegerator\$28.99
KEG79 Keg Cleaning Kit\$44.99
FX55 Fridge Shank (3 x 1/4" Bore) \$17.99
KEG50 Fridge Shank (4 1/8 x 1/4" Bore)\$25.99
KEG46 Tail Piece w/1/4" Barb\$1.50
KEG47 Hexnut for Tail Piece\$1.50
KEG48 Hexnut washer\$0.50

Portable CO₂ Charging System for Cornelius Keg

- KEG70 CO₂ Charger\$18.99
KEG69 Ball Gas In with Flare End ..\$7.99
or KEG81 Pin Gas In with Flare End \$6.99
KEG82 10 Pack of CO₂ Bulbs\$22.50
KEG87 Draft Beer Flow Restrictor ..\$3.99

American Sanke

Taps



- KEG43 US Sanke-type Keg Valve...\$45.99
KEG67 Guinness Keg Valve\$89.99
KEG40 Bass Tap (Anchor too)\$89.99
KEG68 European Sanke\$45.99
KEG80 German Slider\$69.99
KEG96 Low Profile Perlick Sanke ..\$59.99
FX20 Perlick Sanke\$59.99
Perlick Beer Faucet has an innovative seat-forward design making it the most sanitary faucet available anywhere. Because the internal parts are not exposed to air, the traditional sticking of the handle lever and build up of bacteria is eliminated.

Temperature Control



Turn a spare refrigerator into a cold box. Our controller allows you to set the thermostat of the refrigerator externally, so you can override the internal thermostat. You get precise control over the temperature of fermentation and lagering. The unit hangs on the outside of the fridge. Comes with instructions and a 6 ft. power cord with dual end plug to attach your appliance. No wiring is needed. Temperature range is 30-80°F with a 3.5°F differential.
TE80 \$74.99

OTHER PROJECTS

Liqueurs

Top Shelf Still Spirits Extracts allow you to copy just about any popular liqueur, and it's easy to do. Simply mix the flavoring with sugar, distilled spirits, and (for some recipes) add our *Finishing Formula*.

Choose from the following:

NT04 Absinthe
NT01 Amaretto
NT29 Apple Schnapps
NT41 Blackberry Schnapps
NT23 Cafelua (Kahlua)
NT07 Cherry Brandy
NT08 Chocolate Mint
NT06 Coffee Maria (Tia Maria)
NT16 Creme de Cacao
NT40 Creme de Menthe
NT31 Dictine (Benedictine)
NT17 Hazelnut
NT18 Irish Cream
NT25 Irish Mint Cream
NT33 Italiano (Galiano)
NT24 Orange Brandy
NT27 Peach Schnapps
NT21 Skyebuie (Drambuie)
NT42 Swiss Chocolate with Almond
NT26 Triple Sec

Liqueur Flavorings

Specify, each makes 40 oz.\$5.99

Liqueur Finishing Formula

Our special body-building, glycerine formula "thickens" liqueurs. Use 1-2 oz. per quart of liqueur.

FL07 2 oz.\$1.99

Spirits

BK66 Lore of Still Building

Gibat.\$9.99

BK36 The Compleat Distiller. Nixon

& McCaw.\$25.00

BK132 The Art of Distilling Whiskey

Owens and Dikty\$24.99

BY35-UR Still Spirits Classic

Turbo Yeast, Urea version\$5.99

TE39 Proof & Traille

Hydrometer\$10.99

TE111 Glass 250 ml Test Jar\$14.99

Bottles for Vinegar or Liqueur

GL23 Clear glass, quadra - 4 sided bottles come 12 per case. 250 ml.\$15.99

TC18 Black Plastic Bartop Corks, ea. \$.29

Homemade Vinegar

VinegarMaker Complete Kit

Comes with the culture of your choice, glass gallon jar, the book *Making Vinegar at Home*, funnel, cheese-cloth and three 375ml. bottles, and caps for your finished vinegar.
BNV40\$32.99



Vinegar Culture

Single bottle of pure culture of an excellent acetobacter strain. Includes instructions to make your own gourmet vinegars.

FL32 Red Wine, FL31 White Wine, 8 oz\$12.99

GL21 Bottles for Vinegar or Liqueur

Three pack of bottles (13 oz), and caps.....\$5.99

Soda Extracts

Around our house, it's a great tradition to let the grandkids help put up a batch of root beer in the summer.

There are lots of flavors to choose from these days, you may even be talked into bottling several different batches.

Save your one - three liter sized plastic soda and mineral water bottles with their screw caps, then you can bottle with a minimum of equipment,

just a length of siphon hose and a pan or bucket large enough to hold 4 gallons. Use your own cane sugar, or for a less sweet soda, use corn sugar.

Homebrew Soft Drink Extracts

FL08 Birch FL11 Cream Soda
FL10 Cola FL12 Ginger Ale
FL13 Ginger Beer FL16 Root Beer
FL14 Sarsaparilla FL37 Passion Fruit
Specify, 2 oz.\$6.99

Gnome Soda Extracts

FL38 Root Beer, 2 oz.\$5.99
FL51 Cream Soda, 2 oz.\$5.99

Yeast

WY23 Prise de Mousse Wine Yeast (EC1118), (a Champagne Yeast strain)
10 g\$1.99

Home Cheesemaking Kits

Quick Start Mozzarella Cheese



Mozzarella Kit includes reusable 5" dial-top thermometer, heavy duty Neoprene gloves for stretching curd, plus Vegetarian Rennet, Lipase powder, and Citric Acid (for multiple batches). Step-by-step recipe is included. CH156 Mozzarella\$19.99

Quick Start Fresh Chèvre Cheese



Chèvre Kit makes multiple batches of fresh cheese with the addition of milk. Create a creamy, mild, slightly dry cheese eaten plain or with dried herbs. Recipes make two small round cheese with a tangy, slightly acidic finish from one quart of milk. Kits include Ripening Pan and drain tray, 2 Molds, Rennet, Calcium Chloride, Farmhouse Culture, 5" dial top thermometer, flavoring herbs.

CH157 Chèvre (for 1 quart of goat milk)\$34.99



Scan with your QR reader on a smartphone to see our cheese catalog.

Meadmaking Instructions and Recipe

By Byron Burch

Summer brings a break for most winemakers. Most white wines are long since bottled, and it won't be time to do the reds until you need the containers for this year's harvest. There's an almost visceral need to ferment something.

An obvious answer suggests itself --- Mead! "Mead?" I hear you cry. "Isn't that the stuff that sent the Vikings off looting and pillaging all over Europe long ago?" Well, yes, but the Vikings did decide to become civilized. Likewise, the meads I make these days are downright friendly. If they weren't, I'd probably hesitate to suggest making mead to anyone, but as it stands, you might find it interesting to give it a whirl. After all, you probably already have a good share of the equipment on hand for your winemaking or brewing.

Mead, the likely ancestor of all fermented drinks, is arguably best described as "honey wine," and the meadmaking process has rather more in common with winemaking than with brewing, though elements of both are present. It's one of life's ironies that the mead renaissance has been led by home brewers, rather than home winemakers. As someone who makes beer, wine, and mead, I'd have expected it to be the other way around.

Let's start with the process for an Unflavored (or Traditional) Mead because, in some ways, that's the simplest. Here's a generic recipe to show the ingredients and techniques involved. Meads like this are often called "Traditional Meads," though most of the older mead recipes I know of do call for various flavoring agents.

"Traditional Mead" (5 gallons)

15-18 lbs. Clover Honey (or other light delicate honey)
5 gallons Water
2 oz. "The Beverage People" Yeast Nutrient for Mead
Campden Tablets (after fermentation)
5 Tbl. Tartaric Acid
1/2 tsp. Irish Moss
10 grams Prise de Mousse Wine Yeast
Original Brix: 21-25°
Total Acid: 0.6 - 0.65%

Follow this method for many mead recipes:

1. Heat the Water until warm, turn off the stove and stir in the Honey until dissolved.
2. Heat this mixture to boiling, and boil for 5 minutes, skimming the surface with a large spoon. Add the Nutrient, Acid, and Irish Moss.
3. Cool to room temperature.
4. Pour the mixture into carboys, or other narrow-neck (closed) fermentors, filling them no more than 75% full.
5. When the temperature of this "must" is down near room temperature, test the sugar and acid levels. If these are below the levels indicated above, make the necessary corrections. Slightly higher is okay.
6. Add Yeast to the surface. In 10 or 12 hours, stir it in.
7. Once fermentation begins, allow it to continue for two or three weeks until visible signs of fermentation have ceased.
8. When bubbles can no longer be seen rising through the mead, rack (siphon) away from the settlings into an open container. Fine with Sparkolloid, add three Campden Tablets (crush the tablets to powder and add) and siphon into a narrow-neck storage container, top up, and let it set for four weeks.
9. Rack away from the Sparkolloid settlings, top up again, and let it stand for three to six months.
10. Carefully rack into an open container, add 1/2 crushed Campden Tablet per gallon. If you wish to sweeten the mead, do so now with sugar syrup, adding to taste and also stir in 1/2 teaspoon Sorbistat per gallon.
11. Siphon the mead into bottles, cap them, and set them aside to age for three to six months.

The Beverage People Mead Equipment Kit

Meadmaking is a cross between wine-making and brewing. Our kit contains a **five gallon Plastic PET carboy**, a **6.6 gallon**

Plastic Bucket and Lid, a **six gallon Plastic PET Caboy**, **Fermentation Locks**, and **Stoppers**, **Siphon Assembly**, **Bottle Filler**, **Emily Capper and Bottle Caps**, **Cleaner and Sanitizer**, a **Bottle Brush**, an **Acid Test Kit**, **Hydrometer/Test Jar**, and the book *Making Mead* by Morse.
BN60 \$149.99

Meadmaker's Ingredient Kit

9 lbs. of the finest **Clover Honey** with **Yeast, Nutrients, Acid, Sulfite, Priming Sugar, Finings** and **Instructions**. Kit makes 5 gallons of sparkling mead.
BN50 \$54.99



Supplies for Meadmaking

Yeast Nutrient for Meads. (Our special blend)

QR50 Use 2 oz. per 5 gallons. 2 oz. \$2.99

CS17 Campden Tablets Pack of 25. \$.99

Yeast for Meads

WY25 Beaujolais 71B (fruity, and aromatic reds)

WY23 Prise de Mousse (low foam yeast)

WY22 Epernay 2 (fruit wines as well as mead)

Choose from above, 10 grams for 5 gallons \$1.99

Finings

FN06 Sparkolloid™ 1 oz. \$1.99

Acids

A05 Citric 2 oz \$1.69

A14 Malic 2 oz. \$1.99

A10 Tartaric 2 oz. \$2.99

Sanitizer

CS02 BTF Iodophor 4 oz. \$5.99

Honey

AD33 Clover 1.5 lbs. \$7.99

AD34 Clover 3 lbs. \$14.99

AD10 Clover 12 lbs. \$54.99

AD41 Orange Blossom \$79.99

AD44 Raspberry \$79.99

Books

BK77 Making Mead Morse. \$18.99

BK05 The Compleat Meadmaker Schramm. \$19.99

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Get your customized brewery started. Get a bare naked rack frame to start. Particularly nice if you don't happen to know a welder.

PB43-R 5 Gallons\$575.00
PB12-R 10 Gallons\$600.00



(Note: you will need to buy the 4" casters and heat tolerant paint at your local hardware store.)

Propane Setup for Brewery

All Plumbing components used in our three tier systems are available for you home built rack. These components should be connected with 1/4" copper tubing available at your local hardware store.



SP21 HP Regulator and hose for single propane burner\$31.99

PB153 Complete Burner Kit includes the parts SP19, SP20, SP02, SP09, PB54, PB51, FX01\$56.99

SP19 Burner Alone(High Pressure) ...\$33.00
SP20 Valve for Single burner (1/4"Male NPT X 1/4" Female NPT with .046 Orifice) for High Pressure\$21.99

SP02 Propane Burner Butterfly Vent ..\$1.99
SP09 High Pressure Spring for Burner Vent\$0.99

PB54 Hex bolt, zinc, 5/16" X 3"
 1 each with Lock nut.....\$2.99

PB152 Manifold for Gas Plumbing on Three Tier Brewery - For use with 1/4" copper tubing\$18.99

Brewery Kettles

32 qt Stainless Steel Brew Kettles

Polar Ware USA

K05 Mash/Lauter Kettle\$294.99
K07 Hot Liquor Kettle\$279.99
K02 Boiling Kettle.....\$269.99

60 qt Stainless Steel Brew Kettles

China

K13 Mash/Lauter Kettle\$359.99
K12 Hot Liquor Kettle\$299.99
K11 Boiling Kettle.....\$289.99

60 qt Stainless Steel Brew Kettles USA

K01 Polarware Boiling Kettle.....\$329.99
K03 Polaware Perforated False Bottom for Boiling Kettle\$95.00

Kettle Conversion

If you already have a kettle and would like to convert it for use in an all-grain brewery, you will need to install a valve. These fittings must be welded into place. In-store we have a welding service available.

PB151 S/S Valve Kit includes PB07, PB04, PB02\$34.99
PB02 S/S Nipple.....\$3.75
PB04 S/S Coupling.....\$9.99
PB07 Stainless Steel Ball Valve\$19.99
PB05 S/S 1/2" Barb X 1/2" male NPT Hose Barb for Boiling Kettle and Lauter Tun\$7.99

SP54 Copper Shower Tree - 1/2" NPT Male Thread for Hot Liquor Tank.....\$14.99



Components for HERMS and RIMS Brewing

Chugger Pump with Stainless Steel Head



Magnetic drive, impeller safe up to 250F, 55" cord with plug, food-grade materials in contact with the liquid, 1/2" ports.

PS5946 Chugger Pump - Plastic centrifugal Pump, 115V 1/2" ports, 1/25HP, 55" Cord\$159.99

Heat Tolerant Tubing

Food-grade tubing temperature rated to 500F. Odorless, tasteless, and inert Silicone tubing is FDA food-grade approved from -100F to 500F. The perfect tubing for building a personal brewery, especially for any time that the wort is in contact with tubing. It works great with March magnetic drive pumps.

HS5766 Food Grade Silicone Tubing, 1/2" ID, per foot..... \$2.89
HS60 Food Grade Silicone Tubing, 13/8" ID, per foot..... \$2.69



Hot Wort Return Ring



Can be placed on the top of your grain bed for gentle return of pumped wort to prevent hot side aeration.

SP53 Hot Wort Return Ring Complete \$22.99

Additional Brewery Add Ons

F500 In-Line Sanitary Filter

In-line sanitary filter can be attached to a carboy cap and used to sterilize the air blown into the carboy to force start a siphon. To make use of this system you will need a 3/8" racking tube, hose, an appropriate size carboy cap for your carboy, and the in-line filter.\$3.99

BREWING BOOKSHELF



BK01 Brewing Quality Beers (2nd Edition)
Burch. Our standard text. Up to date techniques and recipes, including the imperial stout that won a national championship. Included with our standard equipment kit. Includes information on all-grain brewing and draft beer systems. \$7.99

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Ray Daniels studied the results of the National Homebrew Competition and combined what he learned with beer style evaluation to net a super book on designing recipes. Highly recommended.
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BK11 Extreme Brewing
Calagione. Recipes for beers that are exotic and exciting with instructions. \$24.99

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Palmer. Step by step instructions and recipe formulation from beginning to advanced. \$19.99

BK33 Old British Beers and How to Make Them Dr. Harrison and The Durden Park Beer Club. The classic book of old recipes and methods for brewing beers dating back to the 1300's. \$14.99

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80 Winning Recipes anyone can brew. Palmer and Zainasheff. \$19.99

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Hieronymus. \$17.99

BK34 Brewing better BEER
Strong. \$17.99

BK14 Sacred and Herbal Healing Beers
Buhner. \$21.99

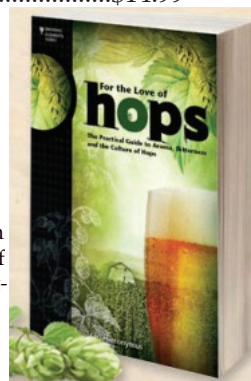
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BK27 #5 Porter Foster
BK29 #7 German Wheat Beer Warner
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Beach. \$14.99

BK1325 For The Love of Hops Provides fundamental information about and descriptions of more than 100 hop varieties, along with 16 recipes from around the world,



including from top U.S. craft brewers. Hieronymus. \$19.99

New Release from Brewers Publications:
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Steele \$24.99

Culture and Craftmanship in the Belgian Tradition

BK06 Farmhouse Ales Markowski .. 17.99

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BK18 Brew Like A Monk

Hieronymus \$18.99

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Other Popular Hobbies

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BK140 Home Winemaking, Step by Step
Iverson. \$17.99

BK40 Modern Winemaking
Jackisch. \$44.99

BK20 Micro Vinification
Dharmadhikari, and Wilke \$46.99

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..... \$39.95

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Questions? We're here to answer the phone from 10:00 to 5:30 weekdays. Retail hours are 10:00 to 5:30 weekdays and Saturday 10:00 to 5:00. We're always ready to answer questions for our customers, or to discuss any problems that arise.

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To place your order by mail, please note the following: if you live in California, add 8.75% sales tax on non-food items. Food items are: malt, sugar, hops, beer yeast, vinegar, soda, concentrates and flavoring extracts. All items shipped to points outside California are not taxable.

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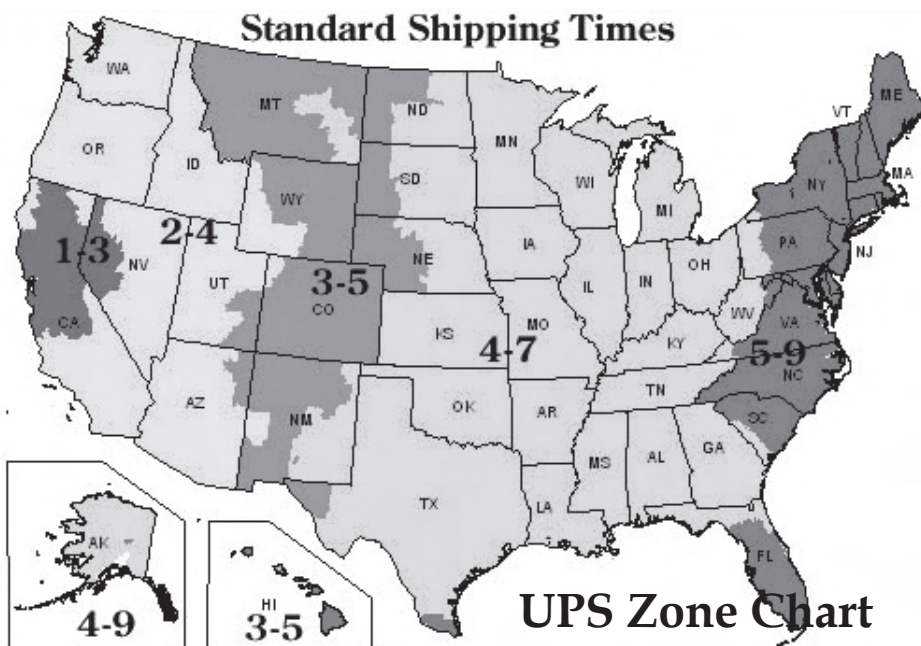
We normally ship via UPS Ground service on the same day the order is received. See UPS Zone Chart to right for an estimate of shipping time.

For faster service to areas outside of California, and for perishables such as liquid yeast, we recommend UPS 2nd Day Airservice, or 3-Day Select service. Please call our toll-free number for exact shipping charges on these options.

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Shipments to Alaska, Hawaii and out of country will travel by carrier of customer request. We must add shipping charges to these orders. These are the exact charges that USPS charges for Priority Mail.

Please call our 800 544-1867 for a shipping quote for items that are exceptions to our list.



Add \$6.00 for UPS shipping on most items to California, Oregon, Washington, and Nevada. For all other states actual shipping is charged. Check out our website to calculate your shipping www.thebeveragepeople.com UPS and Priority Mail are available options.

The Beverage People is a highly respected retail and mail order supplier for people making wine or beer and the growing hobbies mead or cheese. Our staff has been teaching hobbyists for over thirty years.

We bring you products of the finest quality and the information needed to use them to best advantage, and we do it at competitive prices. Our retail store is a mecca for enthusiasts like you from all over the country. Stop by for a visit next time you're passing through the California wine country.

Byron Burch, our founding partner, is the author of *Brewing Quality Beers*, a book that has helped over a quarter million people become home brewers. He has been national Homebrewer of the Year, and three-time Meadmaker of the Year. He is an Honorary Master in the Beer Judge Certification Program. He is currently retired from the day to day operations of the store, but continues to teach our famous beer-styles class and help out from time to time.

Nancy Vineyard, President and CFO, has managed our company since 1980. Prior to that she had two years

of winery experience. She has been a national Homebrewer of the Year, and is a National Judge in the BJCP. She teaches our winemaking classes and some of the cheesemaking classes.

Bob Peak, joined the team in 2003. He has a chemistry degree, and many years of laboratory experience. Before joining our team, he managed a wine industry laboratory for three years. Bob is an award winning winemaker and brewer, and is a Certified Judge in the BJCP. He teaches many of our cheesemaking and beermaking classes.

Gabe Jackson joined us in 2006. He solves many of our accounting and computer problems and teaches beginning brewing classes and some cheesemaking classes.

Kimi Wilkinson, Joseph Hanson-Hirt and Emily Harvey are all new associates in retail sales, web sales and also participate in classes. All of them bring a love of fermentation to their work; making beer, cheese, wine, kombucha, liqueurs, vinegar, salume and bread at home and sharing same with their co-workers.

Cheers in beer and all things fermented...

**The Beverage People News is a publication of The Beverage People,
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All our supplies are guaranteed for one year.
Yeast is perishable and should be refrigerated
on arrival. Best used in 60 to 90 days.

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3. See page 30 for shipping to Alaska and Hawaii and out of Country.
4. Add \$6.00 for shipping most orders to California, Nevada, Oregon, Washington. For all other states, add actual shipping, quotes available online at our store site, www.thebeveragepeople.com
5. Orders with 50 or 55 lbs. sacks of grain malts or sugar, Mosto Italiano Wine Kits, or wine barrels larger than 3 gallons, glass carboys and cases of bottles ask us for UPS ground shipping charge. We charge the exact UPS charge for your shipping zone.
6. The five or ten gallon breweries are shipped via truck, freight collect.

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Complete sub-total

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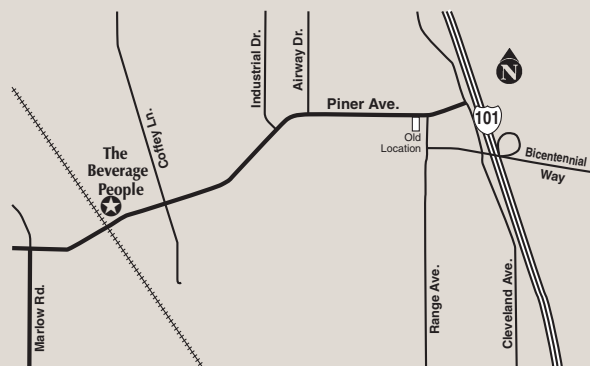


THE BEVERAGE PEOPLE

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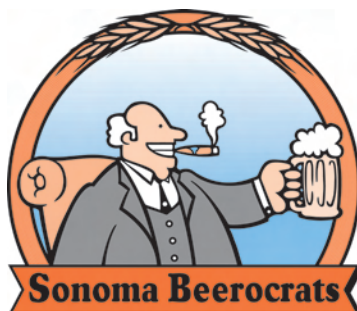
Follow us on facebook, we can share our fermentation stories! If you would like to get current promotional news, subscribe to our e-mail group. Both links can be found on our website's homepage... www.thebeveragepeople.com

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Come Join the Fun!

The Sonoma Beerocrats is an American Homebrewers Association sanctioned homebrewing club based in Sonoma County, California. We are always accepting new members, so if you are in the area, please feel free to contact us about joining or simply show up to an upcoming meeting. The club meets on a monthly basis. Each meeting occurs at a different location - some are hosted by breweries, some at members houses, some at *The Beverage People* store in Santa Rosa...
www.sonomabeerocrats.com