An Explanation of Matters Technical and Mystic

The Brew House wort kit is a completely new product. Not only is this the first beer kit using only fresh, unconcentrated wort, it is also the first "Add-Water-And-Stir" kit that makes great tasting beer true to style. With something this new, there are some questions people have about the kits, the way they are made, and why they are better that we hope to answer in this handout.


- Malted grains, specialty grains, hops and water
- No adjuncts or additives, no sugar, no extract.
- The American lager & Mexican Cerveza have rice in it.
- A mixture of grains; principal base is Canada Malting Pale 2 row barley.
- Specialty malts from Briess, Gambrinus, Hugh Baird, UCM and Grain Millers.
- Made exactly like microbrewed beer, but without very much water.
- Specific gravity is around 1.075 after boiling.
- Irish moss as a processing aid. It's just seaweed.
- Only real chemicals phosphoric acid and potassium bicarbonate.

**Why phosphoric acid?**

- Same food acid that makes Coca-Cola™ and other soft drinks tangy.
- Lowers pH of the wort after boiling, but before packaging.
- A low pH solution is much less vulnerable to spoilage.
- Neutral tasting, highly effective, food grade acid.
- Lowers the pH without significantly damaging the character of the beer.
- Reduces the browning of the wort after packaging. (More on this later.)
Won't acid make the beer sour?

- Yes, it will. (Surprise!)
- To counteract we add potassium bicarbonate (add pack #1).
- Bicarbonate increases the pH of the wort.
- Neutralises the sour, tangy flavour of the wort.
- Increases the pH back to a normal level, allowing for healthy yeast growth.

How dangerous are these chemicals?

- Amount of phosphoric acid used doesn't bring the pH down as far as it does in Coke.
- Kit is only about half as acidic as orange juice.
- Bicarbonate is baking soda.
- Heartburn treatment consists of mixing a tablespoon of baking soda in a glass of water and drinking it.
- Where would bran muffins be without baking soda?

What about the yeast?

- Either Coopers or Windsor, depending on the kit.
- Chosen through many yeast trials. They ferment quickly, and give clean flavours.

How long do the kits last, in the box and after fermentation?

- Nine month ideal shelf life.
- May seem very short to people used to making beer from cans.
- If we say 9 months, hopefully people won't stockpile and turn their beer over quickly.
- Until a couple of years have passed and we have better data, we’re erring on the side of caution.
- Once kit is made into beer it has the same shelf life as any homemade beer.
- Not infected or oxidised, kept in a cool dark place, will last for at least 6 months, and possibly longer.
• Any home-made beer improves significantly with age.
• Up to about three months it will get smoother as young flavours mellow out.

**How can I tell when it was packaged?**

• The packaging date is clearly stamped on the bottom of the box.
• It goes: yyyymmdd '20010109' was packaged on the 9th(09) of January(01) 2001,

**What conditions should I store the unopened kit in?**

• Unopened kits should be handled much like finished beer: store cool, dark and dry.
• The box is thick, will keep out light, but a cool basement is best.

**How good is the kit: better than cans of extract, or bulk malt, hops and grains? Just a marketing scheme to make me buy pre-packaged beer kits?**

• We wouldn't have gone to all this trouble and fuss to make a second rate beer kit.
• If bulk malt, hops and grains were just as good, we would've simply packaged that for resale. This is better.
• We use only grain in our wort: University of Saskatchewan study on 21 brands of malt extract syrup.
  - In addition to some malt sugars, study found that most of the cans contained glucose, corn syrup, caramel, sucrose, molasses etc.
  - All is not good with malt in cans.
  - Due to liability concerns, university will not release names attached to study.
• Even if you get good quality malt, it can be stale.
• If it is fresh, it can be pretty good. . . . except that it will still be maillardized.

**Maillardized?**

• Wort is made by vacuum concentration.
• During concentration sugar and flavour compounds undergo browning.
  - This browning is called 'The Maillard Process'.
• Same thing that happens to toast: it goes brown and changes flavour as heat is applied.
• All malt syrups are more or less browned in this way
• Difficult to make a really light lager from extract—the extract is too dark to begin with.

**Won't beer made with fresh malt extract, added grains, extra hops, and careful attention be good?**

• With the exception that it would be impossible to make beer as light in colour and flavour as our American Premium Lager, yes, beer made that way can be very good indeed.

**So why use the BH?**

• While Homebrewer ‘A’ is still cracking his grains and warming malt tins, Homebrewer ‘B’ is pitching his yeast and putting the lid on the fermenter. He’s finished.
• With the Brew House kit you don’t have to sacrifice quality to save time.

**If I really wanted the best quality, wouldn’t I be brewing from all grain?**

• If you had the time.
• Typical all grain brewing day starts at 8:00 am, ends around 6:00 PM
• You need a huge brewpot, burner (stove’s too small), and mash tun.
• Preferably brewing area has a floor drain and a hose for clean-up (very messy).
• BH eliminates the mess and fuss and time, while making all-grain quality beer.

**How close are the styles of kits to microbrewed and imported beers?**

• Our rendering of the beer styles conforms to the definitions laid out by the authorities in the field: Michael Jackson and the AHA/BJCP guide.
  1. American lager: best described as "Coors, the way it tasted 15 years ago." Simple, crisp refreshing quality, great thirst quencher, even for people who "don't like beer."
  2. European Pilsner: premium European lager: Urquell, or Budvar. Grains, malt and a dominant hop character make this a classic beer, perfect with seafood, or all by itself.
  3. Cream Ale- West Coast with a perfect balance of malt sweetness and hop flavour
  4. Pale ale: pure west-coast: Sierra Nevada, Anchor Liberty. Coppery coloured, with spicy Cascade hop flavour and aromas, this is the beer-lovers beer.
  5. Munich Dunkel: wonderful dark lager, with a pleasantly dry maltiness, roasty flavours, but smooth as you would expect a lager style beer to be.
  6. Wheat: Bavarian Style hefeweizen with spicy clove banana flavours
  7. Stout: Rich and dark with a chocolatey-espresso finish
• Made with premium malts.
• American Lager and Mex Cerveza have rice, for a light smooth taste.
• The beers taste very close to microbrewed equivalents—but only if those equivalents are well made!

Is it really easy to mess up? What about fixing mistakes afterwards?

• Beginners will have most trouble with sanitising.
• This is why we produced the 'Brewhouse Sanitation' handout included with the kit.
• Other possible foul-ups include:
  1. Not adding add pack #1 on day 1:
     - Unfortunate, but not disastrous.
     - Beer will still ferment, but will have a sour taste.
     - You can add package #1 any time after day one and the tangy taste will go away.
  2. Adding too much (or too little) water
     - Too little: Just top up when you go to your carboy.
     - Too much is harder: A litre or two, discard on racking and treat it as a lesson.
     - Several litres, you may add another BHWK of same type make a 46 litre batch, carefully measure the water to make up the kit.
  3. Fermentation not starting quickly:
     - Handled improperly, the yeast rehydration results in slow or stuck fermentations.
     - Not fermenting within two days, get another package of yeast and try again.
  4. Beer won't clear in carboy looks cloudy in bottle:
     - Most important factor is time. A few extra days will probably clear it up.
     - Cloudy in the bottle, first time brewers might not understand bottle conditioning.
     - Kit will cloud up when you add the priming sugar (renewed yeast activity).
     - Will clear up, all within about 10 days.
  5. Beer tastes 'funky':
     - If it's less than two weeks in the bottle, advise the customer to wait.
     - Check for bacterial infection. Like any homemade beer, the Brew House is susceptible to spoilage.

Can intermediate brewers add grains and hops, or are they stuck with the beer as is?

• First thing brewers want to do is to customise their kits, trying to make their beer better and different.
  - The BH kit is the perfect vehicle for these aspirations.
  - Advanced Brewing handout included in the kit has some suggestions for enhancing the BH
kit.

- Deals mostly with basics: record keeping, sanitation, liquid yeast, hops, etc.
- Advanced-Advanced handout, covers modifying the wort kit, including high gravity brewing, hop types, style modifications, lagering, etc.
- 'What I did on My Summer Vacation' handout, gives recipes and background for making different beers from the Brew House. Some recipes included are prizewinners in beer competitions across North America!

**Brew House instructions say to use chlorine or iodine based sanitisers. Why can't I use sulphite?**

- Sulphites aren't strong enough for beer.
- Fine for wine, wine has low pH and high alcohol content, discourages spoilage organisms.
- Beer has a relatively high pH and low alcohol: needs more careful handling.
- Chlorine based sanitisers (unscented bleach, Diversol etc.) are excellent cleaning agents, but require a minimum 20 minute contact time.
- Iodaphor works on contact (no soaking) with no rinsing
- Breaks down very quickly: once the solution is made up, it must be used within 24 hours.
- After 24 hours it will have to be discarded, and a fresh batch made.

There are surely more questions to ask, but hopefully this will answer some of the basics.

**Remember, the best beer is always the one you made yourself.**