Amateur Brewer

# TALK to your BEER

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## FIVE WAYS TO IMPROVE YOUR BEER by Fred Eckhardt

- 1. Cleanliness means cleaning and sterilizing EVERYTHING. My own preference has always been to use Household Bleach (Sodium Hypochlorite 5.25%), 2-Tablespoon (30ml) per USGallon or 4-litres. This solution may be used to rinse equipment and need not be removed. Have no fear that your beer will be contaminated with chlorine as this is only a concentration of about 400ppm, and most of that will dissipate by the time you get your ferment going. There will not be enough residue to harm you or your beer or your yeast, and the extra bacteriacidal action is well worth any inconvenience this may cause you. By allowing the various items to drain you will remove all but traces of the chlorine in any case. The traditional sterilant is a 1-2% solution of potassium meta-bisulfite or sodium bisulfite, which is 2-oz/USgal (15gm/litre), this will only inhibit bacteria and not kill them. For a really intensive sterilant, use 2-Tblspn household bleach/qt (30-ml/ litre). This should probably be rinsed lightly as the concentration is more like 1600ppm. Re-apply a milder sterilant if you do rinse. Don't use the strong bleach solutions in your aluminum equipment as the aluminum reacts with the bleach to form chlorine gas!
- 2. Cold is better. The colder that you can manage your ferment the better chance you have to keep stray bacteria from the beer. Most bacteria, harmful to beer, are ineffective in cold temperatures. Lager beer may be fermented at 45-55F(7-13C) and lagered at 32-33F, with a true lager culture, such as Amateur Brewer L or Paul's Lager yeast, both available from Wine Lab 1200 Oak Av, St. Helena CA 94574. With any ale yeast the temperature must be warmer, more in the the 60-65F(25-28C) range. Naturally you must deal with conditions in your own brewery, but keep it cool if you can.
- 3. Keep air out. After the initial yeast buildup, where oxygen is very necessary, the ferment can only be damaged by air. One way to keep air from your beer is not to go into it for any reason, so perhaps a small side-ferment should be set up to keep track of such things as gravity drop and taste which will help you produce better beer. Perhaps you can ferment in a carboy as a single-stage fermentor where the foam is allowed to exit through a tube in the fermentation lock. If so dry hopping is out as the hops will clog the tube if you are not very careful. If you keep your beer cool, you won't have as many worries about bacterial contamination, and thus you may rack it (continued over)

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more safely to secondary or aging ferment. If the ferment is to be warmer, then single-stage ferment becomes imperative. I have had reports that with lager yeast in single stage ferment, the yeast may be lost out the tube. There are many ways to conduct the ferment, and some are better suited to some conditions than others. Single stage is an answer, but not the only answer. I can see no good reason to use the plastic so-called single stage fermentor, but always use a bottle-shaped style such as a glass or plastic carboy (not cubitaner).

- 4. A higher malt extract to sugar ratio is always better, but I have met folks who do not <u>like</u> all malt beers, and that's that for them. We make the beer we like, of course, but all things being equal, the less adjunct you use the beerier will be your end-product. If you must use sugar, limit the stuff to not more than 20% of the fermentable extract. Most commercial brewers limit the use of adjuncts (rarely any sugar) to not more than 45% of the total extract. I think that's really stretching it, but <u>you</u> are the brewmaster.
- 5. Use only the highest quality ingredients. Always buy first class malt extracts and grains, and buy them from reputable merchants, even if doing so costs you more. Quality, or lack of it, is a hidden ingredient in everyone's beer.

#### BOOK REVIEWS

Owens, Bill, How-to-build a Small Brewery, 1982, Livermore, CA, Working Press, Box 687, Livermore CA 94550. paperback 66pp, Illus \$9.95.

I had been looking forward to Bill Owens' book for some time, expecting to see an American version of the English book Woodworking for Winemakers. There are many projects around a home brewery that good do-it-yourselver's would love to see put together in a book. Such a book is definitely needed, but does Owens meet the bill? W-e-l-l he does and he doesn't. In the sense I've outlined above he doesn't, but in other ways he does other things. That's my main complaint about this book--it doesn't do what it should do, so maybe I'm being unfair, isn't it the author's business what he puts in his book? w-e-l-l, anyway I like this book, it's fine in some areas, but then leaves the reader dangling while the author goes on to the next topic. The real test is can you make it after reading the text? I don't know if I could follow his directions as I am not a do-it-yourselfer, but I can see that he covers much more territory in the book than is prudent, and sometimes he cuts you off very close. The brewery he describes is a fairly large home brewery, yet he uses the term "micro-brewery" which has become the accepted term to describe the new very small commercial brewery in this country. A large home brewery is definitely not up to being a micro-brewery. The construction photo's are excellent as far as they go, but they should have been augmented with diagrams and plans, particularly in areas like the description of the boiler stand for the boiling kettle. Cooling system, ditto. The roller mill? Well the guys in our club want very much to make a club malt mill. They studied Bill's work, the only information we could find in print. They couldn't manage it from the info he gives, but it did whet their appetite to make one. (Incidentally Yakima Brewing and Malting uses a motor driven Corona Hand Will for that job!) At any rate the book devotes only one page to that project. Only 20 of the 66 pages are devoted to home brewery construction. A brief description about making the beer follows, and then he goes on to many other things such as beer judging, beer categories, a list of magazines and newsletters, California suppliers, California Homebrew clubs, and finally a dissertation on Brewery license requirements in California. A book about construction of home brewing projects is so urgently needed that I hope Bill will tackle this when his book comes in for a new edition. There are books galore on making beer, mashing, and many of the other topics he explores, but still nothing on building a good complete homebrewing establishment. Owen's book may be ordered direct from the author (address above), or from ABIS and other suppliers, I reccomend it for your library especially if you are into grain mashing. f.e.

Bill also publishes a  $\underline{\text{Brew}}$   $\underline{\text{Notebook}}$  at \$5, with brew logs so you can keep careful records.

Tobey, Alan, <u>Brewing All-Grain Beers</u>, 1982, Berkeley CA, Wine and the People, Inc., 907 University Av, Berkeley CA 94710, 17pp., \$2.00 from ABIS and other suppliers.

Whatever Alan Tobey does he does well, he is primarily responsible for the high quality of Wine & the People's beermaking department, and also a prime mover for the UCD Home Brewing seminars. His crisp, lucid and comprehensive description of the mashing process and how to do it at home is really high quality. Stepby-step he takes you through the mashing process, leaving very little to the imagination. He then goes on to describe decoction and modified decoction, finally he provides 8 different recipes to whet your appetite and then some. The flaw in all this is very simple. He takes much time and effort with this book only to have his publisher (Wine and the People) nearly ruin the effort with one of the worst reproduction jobs I've ever seen. Computer dots! A competent typist could have made a vast difference and at no great expense. Computer dots should stay in the computer.

Despain, R.O., The Malt-Ease Flagon, 1978, Berkeley CA, Ten Speed Press, Box 7123, Berkeley CA 94707, 105pp, Illus \$4.95.

This is a really nice book, it is well written, easy to follow and quite humurous. It is a great book to read. Do not, I repeat, do NOT use this book as a textbook for making beer. I can't imagine anyone wishing to make that style of beer in this day and age. Ten-quart batches, 78% sugar!!! The author's main brewing interest is cheap. This book suffers from being severely dated, published in 1978 from 1950 information. There are chapters on bread, cooking, and alcohol abuse, but precious little on brewing technology. The best information in the book is on "jacking", that time tested Colonial method of making hard liquor from home ferments without illegally distilling it. In essence you nearly freeze the ferment and pour off the alcohol which does not freeze. As you might imagine there is an abundance of information on reading the red-line on your "Beer Tester", plus how to cope with exploding bottles. It is really sad that this book is available, all over the country, in bookstores everywhere. A lot of people are going to learn about brewing the bad way, from another

wretched book that needs to be avoided. You may enjoy this book for its Americana and its humorous text, but you won't get it from ABIS. Warn license requirements in California. A book about considering your friends.

## BREWING CLASSES OFFERED

Dr. Michael Lewis (UCD) is offering a special all-day seminar for home brewers at Davis HIGH SCHOOL (!) on Jan 29, 1983, 9-5pm. The day will be jam-packed with at least three lectures by Dr. Lewis, plus displays, demonstrations, beer tasting, competition, brewery tours and an answer panel. The seminar is titled "Homebrewers Big Day at Davis with Professor Lewis and Friends." Dr. Lewis is doing this as a fund raiser for "Davis High Music Ass'n Vienna Fund" which is what checks are made out to. The seminar is tax-decuctable if you need that. The donation is \$40 (\$50 at the door) or if 20 members of a single club go together they can pay \$35 each. Send money to Dr Lewis, Box 879, Davis CA 95616. Dr. Lewis wrote me "I view this program as an improtant opportunity for homebrewers to hear about, see, and learn-by-doing, some of the skills they need for success...demonstrations are intended to give actual hands-on experience... I hope for a busy 'bazaar' effect."

UDC is also offering some spring all-day classes, Advanced Homebrewing Feb 5, and Feb 26, plus a Champagne (Jan 15-16), Home vineyard management (Feb 12), Wine Tasting (Chardonnay and Cabernet Sauvignon -- Feb 26), and an introduction to Wine Analysis March 26). you send of geta-vd He the \*\* on to describe decetion and moo

### Tadw of Beginer the NEW MALTS FOR MICRO-BREWERIES dolloose bell

The Briess Malting Co (250 W 57th St NYNY10107, 212-247-0780) announced new specialty malts for the small commercial brewer. Malts to be offered are Pilsen type, Caramel (crystal), Munich-type, Dextrin malt (tm Cara-Crystal), Black malt and Dark roasted barley for stout. These malts are to be offered pre-ground in multiwall-paper bags (50-1b units, according to Roger Briess, Company president. These malts appear to be nicely packaged for homebrew supply houses who can then repackage them for homebrew use.

This is a really nice book, it is well written, easy to follow

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