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# Amateur Brewer

## NEWSLETTER

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HOPS - HOW MUCH IS ENOUGH  
by T. Foster

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AUG 19 1982

Six or seven hundred years ago, when hops were first widely used in English brewing, the product was called beer. This distinguished it from the formerly popular ale, which was usually brewed only from malt, water, and yeast, although various herbs and spices were sometimes added. These latter included all sorts of things such as juniper, broom, rosemary, fennel, peppers, and even garlic. As often as not, these additives were not used for their own sake, but rather to disguise off-flavours in carelessly-brewed ale.

In fact, hops were probably used at that time, not for their unique flavour, but for their preservative properties. You see, ale could not be kept for any length of time, unless it were brewed very strong. Hops enabled unscrupulous beer-brewers to produce a weaker product (i.e. made with less malt) which would still keep well, and so fetch a similar price, which would allow them to make a much bigger profit! Partly because of this, and partly because hops were originally a Dutch import into Britain, they were for a while regarded with much suspicion, and some cities even banned their use in brewing entirely.

However, drinkers soon came to like the new flavour, and within a short time, hopped beer completely displaced ale. Which is not really surprising, for, in my opinion, it is really hops that give distinctive character to beer. Whilst I am a great believer in all-malt beers, malt flavour on its own (except for that of roasted malt in dark beers) is relatively bland and uninteresting. And water and alcohol are the only other important components of beer, neither of which have any significant flavour (although alcohol certainly does enhance other flavours already present). In other words, beer is only beer because it is brewed with hops, and the greater part of the varied character of different beers comes from the type and proportion of hops used in brewing them.

So, it disturbs me to hear so many recent comments from private brewers, competition judges, and some writers, complaining about beers that are too hoppy. And I should make the point here that we are talk-

ing more about hop bitterness than aromatic character (without forgetting that these are inter-related flavour factors). It is clear to me that such complaints come from people who have been sadly misled by the big U.S. commercial brewers who use so little hops that their bittering effect is undetectable, leading directly to the idea that any beer with a definite bitter flavor is "unbalanced".

What nonsense! Such people have had their palates eroded by mass advertising, and they are missing out on one of the most important attributes of a good beer. I do not think I am alone among private brewers in wanting to be left in no doubt, right from my first taste of a beer, that it has been brewed with a generous amount of hops. If you don't like that idea, then either educate your palate, or save yourself the time and effort of brewing, and go back to drinking Bud-Miller.

Of course, you can argue that perhaps the greatest pleasure of private brewing is that you can make what suits your own palate. Also that you want your lager or ale to taste differently from that of any other private brewer, so that we don't make the professional's mistake and all produce the same characterless beers. My first answer to that, is that I've already said that it is hops which give beer most of its character. And my second is that there are some beers which should be very hoppy, by definition, and your version of them does not deserve their name unless it too actually tastes of hops.

It is often assumed that lager beers should be smooth and rounded, with the hop flavour being more noticeable in its aromaticity, rather than in its bitterness. In fact, U.S. lagers generally lack both these characteristics (as does the major Dutch import, which is odd in view of the fact that it was the Dutch who introduced hops to English brewers!) But some fine pale European lagers do meet this description, although it must be remembered that they do in fact have a distinct hop bitterness which is disguised by the hop aroma, and by the high level of carbonation of this style of beer. Without this bitterness,

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Hops--continued  
the delicate balance of these beers would be lost, and they would be insipid.

One lager which should have a definite hop bitter flavour is Pilsener, a great beer whose name has been debased because there are so many inferior versions produced around the world. You have to be a little careful with lagers, because they are brewed at a slightly higher pH than ales which gives a more efficient extraction of hop bittering principles, so hop-rates should be lower than with ales. The best way to approach this is to use an aromatic, low a-acid variety, such as Cascades, Hallertauer, or Saaz, at 2-3 -oz per 5-6 gallon brew. High a-acid hops such as Clusters, or Bullion, are just not suited to this type of beer.

The major class of beers which should be definitely and distinctively bitter are the English bitter and pale ales (the first being only a draught beer, and the second a bottled beer). Clusters or Bullion should be used at a rate of about 3-oz per 5-6 gallon brew, whilst low a-acid hops, such as Cascades, Brewer's Gold, Fuggles, or even the British Goldings if you can get them, should be used at a rate of 4-oz for the same length brew, and will give you the most authentic versions of these beers.

Of course, you must not be fooled by the fact that not all English ales are bitter; those sold in the U.S. are brewed to suit the American market, and are not highly hopped, while being much more heavily carbonated than is customary in England, which is death to most beer flavours. Let me assure that most traditional English draught bitter is bitter without any doubt. I normally use 4-oz Cascades for 6-gallons of bitter at an O.G. of 1.045, and most drinkers can taste the hops in that. Yet, what prompted me to write this article, was that I was recently in London, and the first thing I did was to sample one of the local brews. Despite what I was used to, its bitterness was pronounced, and the beer was all the more enjoyable for it!

I haven't space to go on further, although I could do so at indecent length. Just let me remind you again that hops are essential to the production of good beer. Without the wide range of hop flavours available in the various types, beer would not be as interesting, nor brewing as challenging, as we all find it to be. So please don't be mean with the hops!

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#### BREWERY LIBRARIES

One of our most interesting subscribers is the Anheuser-Bush Corporate Library in St. Louis, Mo. The library is one of the many such libraries operated by major brewers and institutions throughout the country. The A-B library is located in the basement at 721 Pestalozzi, main offices of A-B in St. Louis MO 63118. The library, founded

in 1933, has an extensive collection with over 27,000 volumes and 600 periodicals currently received in the subject fields of Beer, Brewing, Brewing Industry, Alcohol and Alcoholism, Business and Industrial Management, Food Industry and Trade, Yeast, Organic Chemistry, Beer Can Collecting, an extensive patent file, and hundreds of Annual Reports from corporations all over the U.S. They participate in inter-library loans (ALA form required), and public usage (including copying) by appointment (ALA form required). Data bases: SDC; NYT Information Bank, a computer terminal with access to different data centers across the country, and Dow Jones. Special Collections: History of beer and brewing industry, and A-B Archives. They are a member of the St. Louis Regional Library Network.

Ann Hunter is the Corporate Librarian, and she received her MLS in 1972, and has been with A-B since 1976. The library sends out monthly new book and periodicals listings to A-B Department heads, Vice Presidents and other important people at A-B. A-B execs may not get their beer these days, but they do get information.

If there's a brewing book you'd like to see, check with your local library, and if (as is likely) they don't have it, ask them to arrange an inter-library loan for the book(s) in question. Most larger libraries can do this for you, but you'll probably have to have a library card or other membership devise, and be a local resident of the library through which you are arranging an interlibrary loan. If there's a State Agricultural College near you your chances of finding selected beer texts there are greatly enhanced.

Past issues of the Amateur Brewer have included good lists of books about brewing, and we have found the old books to be the most helpful to amateur and private brewers, because they have less technical language. Such lists are found in AB#1;12 (water), 4;70 (hops), 6;34-5 (yeast)

#### BREWING LIBRARIES IN THE U.S. & CANADA (Partial subject lists for each)

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1500 volumes on Brewing in a good  
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After reading your AB#8, I followed  
your "Steam Beer recipe. Opened my first  
bottle last week--it is without a doubt  
the best batch I have brewed....I just want  
you to know I greatly appreciate your ex-  
pertise and generosity in sharing it with  
your readers.

Joan Ashwell, Encinatas, CA.

SOME OF OUR MAIL IS GREAT!

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## BOOK REVIEW

Jackson, Michael, The Pocket Guide to Beer, 1982, New York, NY: Perigee Books, 138pp, maps, \$6.75 postpaid from ABIS. (Cheaper at your local bookstore).

Michael Jackson writes with the magnificent authority of having tasted nearly every beer on the planet (and having visited most of the breweries). The book could have been a rehash of his World Guide (AB 7;56), and many authors would have done just that, but it is quite complete and indeed different from his more prestigious work. The book is eminently understandable by Americans, despite Mr. Jackson's Britishness, understandable and quite delightful to read. I'm into my second copy already, having retired the first (autographed) copy. As one who carries a book with him everywhere, I'm delighted to find a book on my favorite subject to fit my pocket. In addition to describing most of the world's beer (including alcohol content in both volume and weight), he also takes the time to rate most of them with a one- to five-star notation! I certainly miss the pictures (there are none), but the information is exceedingly well organized, and after all that is what matters, that and the fact that it fits my pocket.

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## NEW TECHNOLOGY

At long last some Appropriate Technology is coming forth from the "Brewing Establishment" via UCAlDavis, and Brew-Guru Michael Lewis. Chris Quint, a San Gabriel Valley Wort Hog (Pomona CA), reports that single stage fermentation, bread yeast and 14-day ferments are now on the recommended list. Use a glass carboy, rubber stopper with a 3/8" racking tube running down to a pan of water (with sterilant) for a variation on the Burton Union system used by traditional English Ale brewers. Beer is topped-up almost into the neck, and as the ferment seethes, all of the foam, hop resins, insoluble proteins and just plain gunk are rejected from the beer. Key to the process is proper aeration of the wort before adding yeast. Al Andrews of Riverside (CA) has been working on a similar project using stainless steel Pepsi containers as fermentors, and a racking tube to a sterile water bath for another Burton Union variation. Al made his pitch at the American Homebrewer's Ass'n gathering in Boulder, CO in early June. Al says this leaves his yeast so clean, that he can run another ferment right on top of the old one!!! What'lltheythinkofnext? The key seems to be--keep it simple. All this does not mean, however, that the plastic "Single-Stage-Fermentor" sold by home brew supply houses is the proper vehicle. Too much air space. The carboy seems to be the answer, or the stainless steel Pepsi-keg. More on this subject later.

Sterilization? Chlorine! Actually it is household liquid bleach--Sodium Hypochlorite, 1-oz/USgallon (8ml/l). Use it as a rinse on carboy and all equipment, and do

NOT RINSE IT OFF WITH WATER!!! Dr. Lewis claims rinsing will contaminate the equipment, and that the residual chlorine will dissipate completely without effecting the taste. That's something I've felt was OK for a long time, but have been afraid to say it outloud.

Bread yeast was found to be at least as satisfactory (shades of prohibition) as some of the American produced dry Ale yeasts. I tasted two of Chris's beers, (blind), made from the two yeasts mentioned, and there was very little difference between them. Chris has sent me an article on his bread yeast experiments which will appear in AB#9--out soon! (?)

Incidentally, the AHA Confab, in June, was a fabulous success. It was great last year, but this year it was better to about the fourth power. In addition to the homebrew department, there was a Micro-Brewery and Pub-Brewery presentation, plus "The Great American Beer Festival", wherein you paid \$3.50 for a beer mug and four tickets, and then you bought additional at 50¢ per, and then you went booth to booth with your glass, and got royally....

There were 36 really fine American beers there. A maltster from New York talked about blending and packaging malts for the home brew supply industry as well as the micro-brewers. Next year they plan to add something for retailers, which will be a good thing since the HWBTA (Home Wine & Beer Trade Association) is going to England to do their thing. You retailers that can't afford England go to Colorado for an education, something the HWBTA has never offered. Best of all, Boulder is really great in early June.

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## ABQAIQ BEER JUDGING

Our man in Saudi Arabia reports on the Eighth Annual ABQAIQ ("Ab-Cake") Beer Judging, held March 4, 1982. There were 66 entries: 26 light, 13 amber, 18 dark, 7 special, and 2 kegs. Winners: Sutterlin/Robinson/Rokey; Light. Griggs; Special, ("Ole Guinness"). Roth, Amber. Roth, Dark. Dodge, Keg ("Lite"). It was also noted that four of the five winners, and ten of the top seventeen entries were the work of the Chief Judge, Asst Ch Judge, or technical advisor, with the proviso that the judges were blind. They probably were, too, since over 46-gallons of the stuff was consumed along with edibles. Our correspondent reports an ever increasing level of repression in S.A., so the celebration had to be kept fairly low key, without the entertainment that has marked past contests. There may be no more malt extracts allowed into the country, yeast is illegal and one American is reportedly in jail. Brewing paraphenalia is not being allowed into the country, and it all sounds rather grim. Some are attempting to malt feed barley with only limited success. Prohibition is alive and well on the planet, thank you.

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