



Aggie Brew

Issue 4
January 2001

New Facilities

Following detailed discussions in the College, there has been a change of plan concerning the new facility. In view of the age and overall condition of Cruess Hall, it has been decided that we will work towards a brand new building and pilot facility, rather than upgrade the present environment. Although this will of necessity be a longer term program than that originally intended, it will not delay the establishment of our new brewing equipment, which we anticipate commissioning this Spring.

People and Projects

We have a lively bunch of individuals working in the lab right now. Four Masters students are well into the second of their two year stints: Sarah Bushnell works on flavor aging; Greg Kapp on foaming proteins; Dave Lynch on beading of bubbles; and Bob Ward on esterase enzymes in barley and malt. Two new MS students are on board: Bill Stephenson, working on mash oxidation and Evan Miracle who is embarking on a study of sulfur compounds and beer flavor.

One Ph.D student is in place, John Smythe, who is developing a proposal on the psychophysics of beer flavor (Michael O'Mahony will be co-supervising this work).

We are delighted to have two visiting scientists in the team. Dr. Makoto Kanauchi from Japan is prolific in his work on the cell walls of barley, while Jean-Pierre Biawa (from Cameroon) is producing some interesting work on lipoxygenase.

One student is "rotating" through the lab at the moment: Dawn Ahlgren, who is carrying on our work on perceptions of beer foam.

Last, but certainly not least, Candy Wallin has a part-time appointment with us. Somehow she finds time to experiment with yeast biomass analysis amidst the sterling work she does keeping us on the straight and narrow facilities-wise.

Class of 2000

A quick update on last year's class. Further to the report in the last issue, I am delighted to say that Justin Dersch is now employed at Anheuser-Busch's Fort Collins facility while Jim Mellem is now QC'ing at Sierra Nevada.

Class of 2001

Some thirty students have enrolled for the lecture class (FST 102A). There are some eager folk amongst them.

A new course?

I am seeking approval from the University authorities to teach a new course at the Freshman/Junior level, one which will introduce (in a responsible way) the younger element to the rich and varied world of brewing. A comparable class in Viticulture and Enology has three figure enrollment.

Recent Publications

Since the last newsletter the following papers and articles have been produced and will appear shortly. They are:

Kanauchi, M. & Bamforth, C.W. (2001a) Growth of *Trichoderma viride* on crude cell wall preparations from barley. *J. Ag Food Chem*, in press

Kanauchi, M. & Bamforth, C.W. (2001b) The release of β -glucan from the cell walls of the starchy endosperm of barley, *Cereal Chem.*, in press

Bamforth, C.W. & Kanauchi, M. (2001) A simple model for the cell wall of the starchy endosperm in barley, *J. Inst. Brew.*, in press

Dickie, K.H., Cann, C., Norman, E.C., Bamforth, C.W. & Muller, R.E. (2001) Estimation of foam negative materials in beer using lipid binding proteins. *Journal of the American Society of Brewing Chemists*, 59, in press

Bamforth, C.W. (2000) Oxido-reduction processes and active forms of oxygen in aqueous systems. *Jean de Clerck Chair*

Bamforth, C.W. (2000) Brown Shoes or Black Shoes? A scientist's perspective on new product development. *Brewing & Distilling International*, 31(8), 18-20

Smythe, J.E. & Bamforth, C.W. (2000) Shortcomings in Standard Instrumental Methods for Assessing Beer Color. *Journal of the American Society of Brewing Chemists*, 58, 165-166

Bamforth, C.W. (2001) Beer Quality: Flavor. *Brewers Guardian*, in press

Bamforth, C.W. (2001) The need for research to satisfy future brewing needs. *Pauls Brewing Room Book*, in press

Bamforth, C. (2001) Beer: A proud past and a promising future. *Brewer International*, in press

Bamforth, C. (2001) Why study brewing at university? *IFT students newsletter*, in press

Bamforth, C.W. (2001) pH in brewing: an overview, *Technical Quarterly of the Master Brewers Association of the Americas*, in press

More are in the pipeline: watch this space!

small! No (relevant) gift "in kind" rejected!

Spreading The Word

Since the last newsletter, I have been out and about to the following places, spreading the gospel about brewing, including the Davis program

- World Brewing Congress, Orlando, Florida
- Jean de Clerk Chair, Louvain-la-Neuve, Belgium
- MBAA/ASBC meeting, Golden, Colorado
- IOB International Course, Oxford, England
- National Brewpub Conference, Portland, Maine
- Interbev, New Orleans

Media Madness

We were on the television again. This time the cameras from California Heartland paid a visit to catch up with our activities. The piece ran as a part of their Halloween special – but they made good their promise and didn't try to trivialize the message.

******Supporters' Meeting******

On Thursday June 21 we are hosting a full day's meeting here in Davis to which all our supporters are invited (many will be on their way to the ASBC meeting in Victoria). Plenty of data, interactive discussion, lateral thinking.....

Call me for details.

Keep in touch

Please keep in touch, whether you are an alumnus or somebody keen to take advantage of the teaching and research programs at UCD. I can be reached at

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Web Page

Have you called into the Web page yet? 5539 people have, at the last count! It's at
<http://www-foodsci.ucdavis.edu/bamforth/index.html>

Contributions

I am extremely indebted to Anheuser-Busch, Sierra Nevada, Coors, Kirin, Asahi, South African Brewers, Botanicals International, ISP and Heineken for gifts of financial support to the program. We're also very grateful to the organizer's of the Brewers and Vintners Meeting at Shell Beach for the donation of a check following on from the last event.

We were delighted to receive another generous gift of laboratory goodies from Minnesota Corn Processors, some more equipment from Anheuser-Busch and a Biomass analyzer from Aber.

CAN YOU HELP? Do you want to be associated with the furtherance of our exciting mission? No check too