

Aggie Brew

Vol. 1, No. 2
December, 1999

Hello

The very best of Seasonal Greetings to you all.

Time to briefly update you on progress.

The lab

The brewing laboratory has had a complete facelift and is ready for the research students and also the 102B lab class which will run in the Spring Quarter 2000. We have a second research laboratory in the FST building, because of the enormous interest in the research program.

New Brewery

The Pub Brewing Company is being commissioned to supply a new 1.5 barrel brewery. This is being located in a custom built room in the main pilot area of the department. Gary Eckman is providing much valued support in the design of this facility and we are enormously grateful to Anheuser-Busch for their generosity.

This brewery will be an indispensable aid for the teaching and research effort at UCD. It will also be available for special projects for the industry: do get in touch with Charlie Bamforth if you would like to hear more about this – or become actively involved in the project. \$\$\$ and ancillary equipment gratefully received!



People and Projects

Four Masters students have commenced their research careers in the brewing lab.

Sarah Bushnell, from Penn State, will work in the area of flavor stability. Dave Clarke, from Cornell, is looking at foam nucleation. Greg Kapp, also from Cornell, is investigating the proteolysis of hordeins and albumins in barley. While Bob Ward (University of Utah) is studying esterases from malt.

There will also be a couple of visiting scientists working in the laboratory. Dr Makoto Kanauchi, from Tokyo University, is studying the enzymology of barley cell wall breakage. Jean-Pierre Biawa, from Cameroon, but studying at the Technical University of Berlin, will be investigating the kinetics of malt lipoxygenase.

It's also good that several undergraduates have been eager to work on brewing topics: Paul Mansfield, Jim Mellem, Rich Ellis and Jill Johnson have been or will be beavering away on topics as diverse as proteolysis, fluorimetric measurement of foaming polypeptides, β -glucans and better germination tests for barley

Class of 2000

There is a sign-up so far of 28 students (35 maximum) for the Malting & Brewing lecture class 102A which will run in the Winter Quarter

Recent Publications

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

Bamforth, C.W. (1999) Whither beer? *Ferment*, in press

Bamforth, C.W (2000) Perceptions of beer foam. *Journal of the Institute of Brewing*, in press

Bamforth, C.W. (2000) Endogenous and exogenous enzymes in malting and brewing. *Proceedings of the Second European Symposium on Enzymes in Grain Processing*, in press

Bamforth, C.W. (2000) In search of Quality 1: Foam, *Brewers Guardian*, in press

Bamforth, C.W. (2000) Malting and Brewing Science at

the University of California, Davis, *Brewers Digest*, in press

Bamforth, C.W. (2000) Making sense of flavor change in beer, *Technical Quarterly of the Master Brewers Association of the Americas*, in press

If you would like an advance copy of any of these papers, do get in touch.

More are in the pipeline: watch this space!

Web Page

Have you called into the Web page yet? It's at
<http://www-foodsci.ucdavis.edu/bamforth/index.html>

Contributions

I am extremely indebted to Anheuser-Busch, Sierra Nevada, Kirin and John I Haas for gifts of financial support to the program.

I thank Conagra for donating barley and malt, Novo Nordisk for gifts of enzymes and Briess and Crosfields for giving samples for demonstration purposes.

Can you help? Do you want to be associated with the furtherance of our exciting mission? No check too small! No (relevant) gift "in kind" rejected!

Visitors to Davis

I was delighted to welcome Adrian Gardner (Carlton United Breweries, Australia) in November.

Adrian will take over as President of the Institute of Brewing in June 2000.

Alumni luncheon

In September, we were delighted to host a luncheon of alumni and friends of the program at the Master Brewers Association meeting in Keystone, Colorado.

A busy schedule!

It's been a busy few months

August I taught the week long Intensive Brewing Class within the Extension Program.

September I gave a paper at the MBAA meeting in Colorado. Then it was off to UK, to deliver an after-dinner speech at Oxford University and two lectures at the International Course of the Institute of Brewing in Edinburgh. I also gave a paper to the American Association

Of Cereal Chemists in Fairfield, CA...and I drove a truck laden with donated lab. Equipment from Anheuser-Busch back from St Louis. 1,992 miles – and fascinating! If you would like me to make a similar trip from your place, just call!

October A time for spreading the gospel nearer to home: presentations to the students within the Agricultural & Environmental Chemistry graduate group, to the faculty of the Food Science & Technology Department and to the Chancellor's Club. Also a trip to Calgary to once more be a part of the Conagra Malting Course.

November A troubled trip on Amtrak to Fresno, but the presentation on brewing seemed to be well-received by a packed audience at CSU, Fresno. And then it was off to China, where Graham Stewart (Heriot-Watt University), Trevor Roberts (Steiner) and I gave our second week long brewing class at the Wuxi University of Light Industry.

December The sea was frozen in Helsinki, but the welcome to me was warm as a Keynote Speaker at the 2nd European Symposium on Enzymes in Grain Processing.

Add in lectures to other classes on Campus, and becoming a member of the Editorial Boards of the MBAA Technical Quarterly and Biotechnology Letters (to add to J ASBC and J Inst Brew), the Chairmanship of the ASBC Publications Committee and examining the odd Ph.D thesis

- and you can see that life has been fun!

Oh – and keep your eyes peeled for an exciting new brewing textbook, by Stewart, Russell and Bamforth – it's due for publication by Academic Press in 2000.

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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