

# Book Reviews

## Standards of Brewing – A Practical Approach to Consistency and Excellence

Charles W. Bamforth, Ph.D., D.Sc.

Publication: September, 2002.

Publisher: Brewers Publications Paperback, 5 3/8 × 8 1/2,

209 pp. Price: \$39.95

ISBN: 0-9-37381-79-9

This book is aimed primarily at ‘craft brewers’, particularly in the USA, with the purpose of providing an easy-to-read and understandable explanation of the range of analytical tests which can be applied from barley through to beer, and how the data from such tests can be used in order to specify and control quality-critical parameters. As Charlie summarises at the end of his first chapter: “*Methods. Specifications. Understanding. Application. That is what this book is all about.*”

And it succeeds – certainly in terms of being easy to read and understandable – with the proviso that the reader has a reasonable degree of prior understanding and appreciation of the principles of malting and brewing. This is no mean feat for a subject matter which is far from charismatic, and it says a lot about the author’s ability to explain scientific principles and topics in simple, layman, terms. His easy-going but ‘to-the point’ writing style also helps, as do the many anecdotes drawn from his past experiences in the Industry.

The book consists of twelve chapters, the first four covering subjects such as the principles of quality, statistics, and methods of analysis, the remainder ranging over brewing raw materials, the brewing process and its quality assurance. These are complemented by five appendices, embracing the basics not only of malting and brewing science, but also chemistry/biochemistry and common laboratory practices.

Although Charlie states in the introduction: “*This is not a brewing text book*”, given such a comprehensive and far-ranging scope, arguably it does qualify as just that – albeit a pocket-sized one. I would certainly recommend it as a worthwhile revision text for brewing examination candidates wanting to get up to speed with laboratory analyses and specifications.

The author is undoubtedly at his best in the chapters covering brewing materials and the brewing process: explaining in simple (but often quite detailed) terms the basis and rationale for the key methods used in today’s malting and brewing laboratories. He stresses the importance and difficulties associated with representative sampling, the principles of much of the instrumentation employed, and how the information from analytical tests can be ap-

plied in order to specify materials, calculate grists, control wort production, manage fermentations, or assess the quality of the finished product itself.

A useful feature is that each of the chapters covering materials and the brewing process concludes with a series of exercises, which the reader can use to assess understanding, and which certainly serve as a reality check.

Surprisingly, to me, the most disappointing chapter in this section is the one on beer itself, which reads more like a regurgitation of the ASBC Methods Manual, rather than what it could have been: a recommendation of the most appropriate and useful methods of analysis. Moreover, there are some key deficiencies: packaging operations receive only superficial treatment, as do sensory and microbiological techniques.

Charlie gives context and relevance to the laboratory methods and techniques detailed within the materials and beer production chapters by means of his earlier chapters on quality, statistics and standard methods of analysis. There is also a concluding chapter headed, somewhat enigmatically, ‘Approaching QA for Big and Little Guys’.

The chapters on Quality/QA are to me a contrasting mix of standard (even, dare I say, somewhat dated) textbook theory (e.g., on Total Quality Management and Quality Costs) and (far better) the author’s personal views and heartfelt exhortations (coupled with a few grievances), drawn from his time as a practising Quality Manager.

Thus the text is punctuated with messages such as the need for technical understanding (or at least product awareness) at the top of the organisation, the need for senior management to generate company-wide commitment to quality, and the importance of only measuring what you can control.

The fundamental differences in approach between QA and QC are explained, as is the importance of designing and operating processes and plant to ensure ‘Right First Time’ production. It is disappointing, though, that the author identifies only in-line analysis (ideally as part of automatic feedback loops) as the way forward in this area – a somewhat high-tech approach even for ‘Big Guys’. I would have thought it worthwhile at least mentioning the benefits (and caveats) to be gained from implementing operational QC within production teams – arguably a far more realistic and sustainable approach for craft brewers and ‘Big Boys’ alike.

Again there are gaps: Supplier QA and Quality Systems receive scant attention, as does quality target-setting and performance monitoring as a means of driving continual improvement. Moreover, the whole subject of brewery hygiene (surely a critical factor for craft brewers) receives only passing mention through exhortations such as ‘keep the kit clean’.

But, to be fair, despite the claim in the Introduction that this book ‘aims to capture the practical day-to-day reality of . . . quality assurance in the maltings and brewery’, it is

not a book which explains 'how to' (achieve consistency and excellence), but rather what production and QA staff 'should' be doing and why.

The chapter on Statistics and Process Control is as easy-to-read an introduction to the basics of these subjects as anyone is likely to find, particularly since it is illustrated with examples of potential applications within the brewing process.

I might question the relevance of the chapter on Standard Methods of Analysis – other than to introduce and explain the concept of repeatability and reproducibility – and particularly as Charlie makes it obvious that it is not his favourite subject, and tends to poke fun at it ('methods written for idiots').

To sum up then, I can do no better than repeat Charlie's own summary: 'Methods. Specifications. Understanding. Application. That is what this book is all about.' Yes, it is, and as such it is a very easy to read, entertaining, and digestible text for anyone with prior brewing knowledge wanting an introduction to basic quality principles. On that basis alone, it is worthy of recommendation. "A Practical Approach to Consistency and Excellence" – no, not really, although it certainly tries hard to encourage the heart and point the way.

Reviewed by Harry White,  
Director of QA, Coors Brewers Ltd.,  
United Kingdom

---

**JOURNAL OF THE INSTITUTE OF BREWING**  
(An Institute & Guild of Brewing publication)

**ORDER FORM**

**ANNUAL SUBSCRIPTION**

£200 per year starting with ..... issue

**NAME AND ADDRESS (Block Capitals)**

.....  
.....  
.....  
.....

Remittance to be enclosed with order (overseas readers please use Sterling draft on UK Bank). Credit card payments may be made over the telephone.



The Institute & Guild of Brewing  
33 Clarges Street, London W1J 7EE, UK  
Tel: +44 (0) 20 7499 8144 Fax: +44 (0) 20 7499 1156  
e-mail: enquiries@igb.org.uk website: www.igb.org.uk

REGISTERED CHARITY No. 269830