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11 Yeast biology

Sommario/riassunto

Brewing is one of the oldest and most complex technologies in food and beverage processing. Its success depends on blending a sound understanding of the science involved with an equally clear grasp of the practicalities of production. Brewing: science and practice provides a comprehensive and authoritative guide to both of these aspects of the subject. After an initial overview of the brewing process, malts, adjuncts and enzymes are reviewed. A chapter is then devoted to water, effluents and wastes. There follows a group of chapters on the science and technology of mashing, including grist preparation. The next two chapters discuss hops, and are followed by chapters on wort boiling, clarification and aeration. Three chapters are devoted to the important topics of yeast biology, metabolism and growth. Fermentation, fermentation technologies and beer maturation are then reviewed, followed by a consideration of native African beers. After a discussion of brewhouses, the authors consider a number of safety and quality issues, including beer microbiology and the chemical and physical properties of beer, which contribute to qualities such as flavour. A final group of chapters cover packaging, storage, distribution and the retail handling of beer. Based on the authors unrivalled experience in the field, Brewing: science and practice is a standard work for the industry.