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Book review

R.J. Clarke, J. Bakker, Wine flavour chemistry, Blackwell Publishing Ltd., Oxford, 2004, €85, p. xii + 324., ISBN 1-4051-0530-5

This book contains seven chapters, two appendices and a comprehensive index. Chapter 1 (36 pages) is a general introduction dealing primarily with vinification of different types of table wines, fortified wines and sparkling wines. Chapter 2 (29 pages) deals with the main grape varieties, the main wine producing regions of the world and the quality control and classification of wines in the main European wine producing countries. Chapter 3 (54 pages) thoroughly discusses the basic taste and stimulant components of wine, covering topics such as the measurement and levels of ethanol, acidity and sweetness, the structure of sugars, the bitterness and astringency in both red and white wines, the colouring components of wine, the effects of gaseous components (sulphur dioxide, carbon dioxide, oxygen) and the maturation of wine both in barrel and in bottle. Chapter 4 (69 pages) deals extensively with a wide range of volatile components of wine and how these affect the flavour/odour of wine and its sensory evaluation, how such components change during maturation and how aroma compounds are detected and quantified. Chapter 5 (41 pages) discusses wine tasting procedures, the overall flavour of wine and the combined wine and food flavours. Chapter 6 (35 pages) gives an account of the production of sherry and port and chapter 7 (16 pages) discusses variables in the vinification process and the production of a range of individual groups of compounds found in wine. Appendix I (26 pages) deals with aspects of organic and physical chemistry pertinent to wine making while Appendix II is a collection of tables giving details of compounds, their formulae and physical characteristics of a wide range of wine components. Each chapter contains a good bibliography and reference list.

The book is well-written and contains a wealth of information for different audiences; professionals, amateurs and students should find this a valuable reference book. Like many books, this one is no exception in containing a number of typographical errors but these do not reduce the value of the book. In their Preface the authors mention that the book "has been in gestation for many years" and that "an original draft was started some ten years ago"; this is evident in the book in a number of ways. For example, in the introduction they state that table wines consumed with foods have alcohol content "typically 11.5% v/v for red wine"; this may have been the case a few years ago but it certainly is not the case today when a look at the shelves of wine retailers and supermarkets in the UK shows that red table wines with an alcohol content of 13–14% are not the exception. Another example is to be found in the bibliography and reference lists which mention only very few post-2000 books or reports; a good example is Oz Clarke's *Wine Guide* which is published annually but the latest one quoted in this book is the 2001 version which was available in the final quarter of 2000. On the matter of referencing, it is odd that, in almost all cases, the same system is used (i.e., name and year in the text and name, initials, year, etc. in the lists) but in both instances Clarke is referred to as Oz Clarke!

In conclusion, the book is worth purchasing for libraries in universities with food science, applied microbiology and, possibly, plant science departments. The book will also be useful for those in the wine industry/trade and public libraries will find it a useful addition for their readers who are wine amateurs/enthusiasts.

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