

Introduction and Usage of the Book and Associated Materials

This **Technical Manual for the Cider Industry** offers the knowledge and information gained by the Author over more than 35 years of working as a trainer, consultant and award-winning producer of cider and perry. As the Author is retiring from running training courses, the main purpose of this book (along with the course manual for the *Principles and Practice of Cider Making* course - **separately available**), is to continue to provide instruction and guidance, with references for further study. This book is also designed to act as the main text for advanced training programmes, such as those operated by the *Cider Institute of North America* (CINA) and therefore builds on information included in the Foundation Certificate's textbook: *Cider & Perry Production-A Foundation* (**Mitchell, 2016**).

In addition to the main text, the Author will include personal reflections and observations, anecdotes, examples and comments; sometimes playing devil's advocate. These are mainly highlighted in identifiable

Textboxes

Some of the of personal comments will also be included elsewhere. A number of the remarks and observations made may well be contentious and are designed to stimulate thought and discussion. Other Cidermakers do have different views, sentiments and approaches to production. But it is important to note that this Author recognises and fully accepts that there are many different techniques and processes of producing cider and there certainly is **not** only one correct way to make the products concerned. As long as the cider is safe to drink and is appreciated, enjoyed and valued by the consumer, that is all that matters. In addition, there is always more to learn, striving for improvement is an ongoing process.

A range of tables, that contain detailed information associated with certain subjects, along with a number of **Factsheets** are also included in the book.

These aim to provide information about specific topics, such as species of yeast and bacteria, biochemical principles, types of stainless steel, sanitisation chemicals, pumping and laboratory analysis.

Technical Manual Electronic Documents

In support of the book's contents, a wide range of **Technical Manual** electronic documents are separately available, a list of these will be referenced in a textbox included in each appropriate section. These fully editable resources (Word documents and Excel spreadsheets) were originally designed and were continually redeveloped by this Author for use in his own demonstration facility for commercial cider and perry production. As well being used in practical production, they were also designed to serve as exemplars and tools to be used in the training of new and existing producers. The following aspects of production are included:

- Production planning, including spreadsheets for facility resourcing and production cost analysis
- Record systems, model work instructions, specifications and procedures, some of which are also integrated into the record systems
- Quality Assurance, including a model HACCP Plan and proformas to be used in its development
- Analytical and Hedonic Sensory analysis model questionnaires and data analysis spreadsheets

Every production facility will be different and should ultimately develop its own systems and documentation, but at the very least, the **Technical Manual** should provide some ideas to be taken forward. Whilst some of the documents are likely to be useful without any modification, others will need editing to suit individual requirements and in a large business/facility, some may need to be superseded by more flexible data-base systems.

A detailed **subject index** is included on the following pages, with **references** for further study listed at the end of each of the three parts of the book. Some of these, along with links to other resources, are **highlighted** as being particularly useful.

It is not intended that this Technical Manual is read from cover to cover, but used for reference and guidance as required.

Note: Unless specifically stated and explained otherwise, the term 'cider' will also apply to perry in this book