



ASSOCIATION OF APPLIED BIOLOGISTS

President: Professor Peter Shewry BA, BSc, PhD, DSc

A one day conference

**at Pershore College,
nr Evesham, Worcs, UK**

on 16 April 2014

PROGRAMME

**Advances in Cider and
Wine Making Technology**

**Association of Applied Biologists
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Advances in Cider and Wine Making Technology

to be held at
Pershore College, Evesham, Worcs, UK
on 16 April 2014

BASIS Points have been applied for

The second Advances in Cider and Wine Making Technology workshop will extend previous topics covered in the first workshop in 2011 and introduce advanced studies in specialist areas relevant to the industry.

The morning session will cover topics relevant to small scale production including orchard management and fruit selection, efficiencies in juice extraction, fermentation management and conditioning and quality assurance for consistency. Speakers will share experience in production and problem solving and relate product character to the demands of the retail trade. This session will be particularly relevant to small and craft scale producers looking to extend their understanding of the basic process and seeking to manage consistency in product character. A presentation on continental production will provide insights to specialist artisanal products.

The morning session will also cover advanced techniques in production and analysis which are currently under development and with potential for future application. Specific topics will include use of molecular biology in fruit and microbial identification, fruit and microbial genetics for product character and flavour, metabolomics in flavour analysis, dietary and nutritional characterisation of apple and fruit wines and sensory analysis technology.

The afternoon session will provide a hands-on laboratory workshop demonstrating basic analysis techniques for small scale production management. Participants are encouraged to bring their own fruit, cider and wine samples for analysis which will include alcohol and gravity assessment, sugar and acid profiling, sulphur titrations and tannin assessment. Microbiology topics will focus on yeast evaluation and bacteria identification and light microscopes will be available to demonstrate and develop skills in assessment. Identification of fruit quality by visual and microscopic analysis will be conducted and faults in production presented for familiarisation.



PROVISIONAL PROGRAMME

WEDNESDAY 16 APRIL 2014

09:00 CONFERENCE REGISTRATION & COFFEE

Chair: KEITH THOMAS (Brewlab Limited, University of Sunderland, Sunderland, UK)

09:20 WELCOME & INTRODUCTION

KEITH THOMAS (University of Sunderland, Sunderland, UK)

09:30 **Developing orchards for future cider apple production**

ANGELA BERRIE, JEAN FITZGERALD & LIZ COPAS (East Malling Research, Kent, UK)

09:50 **Experience with fruit wall growing systems in apples and their potential in cider production**

TIM BIDDLECOMBE (Farm Advisory Services Team Ltd, Crop Technology Centre, Faversham, Kent, UK)

10:10 **Production systems for cider and fruit wines**

RICHARD TOFT (Persore College, Eversham, Worcester, UK)

10:30 TEA

11:00 **Changes in microbial communities during cider fermentation**

CHRIS HOLLILAND (Brewlab Limited, University of Sunderland, Sunderland, UK)

11:20 **Traditional and modern methods of identifying and characterising cider microorganisms**

KEITH THOMAS (University of Sunderland, Sunderland, UK)

11:40 **Managing the risk of protein haze formation in wines**

MATTEO MARANGON (The Australian Wine Research Institute, Adelaide, Australia; Plumpton College, Nr Lewis, East Sussex, UK)

12:00 **Production of specialist French artisanal cider**

MARIE LAOT (Brasserie du Bouffay, Carquefou France)

12:20 DISCUSSION

12:40 LUNCH and POSTERS

POSTERS

The archive of cider pomology

REBECCA ROSEFF (Cider Museum, Hereford, UK)

The persistence of pathogens in apple juice and cider

CONNOR McCLAY & KEITH THOMAS (University of Sunderland, Sunderland, UK)

Designing and managing a community orchard in North Yorkshire

SALLY RECKETT (Transition Richmond Yorkshire (TRY), North Yorkshire, UK)

13:45 **TOUR OF SMALL SCALE CIDER PRODUCTION**

Persore College Cider Unit. Including apple processing, fermentation and packaging

RICHARD TOFT (Persore College, Eversham, Worcester, UK)

14:45 **Workshop**

Analysis for regulation and quality assurance

Survey of methods to determine alcohol by volume, contaminants and key quality indicators.

Inexpensive procedures and apparatus to manage and analyse your cider

Microscopy and microbiology

Use of the light microscope. Microbial recognition and culturing procedures

Flavour analysis

Taste training and flavour profiling to assess quality, identify faults and produce accurate descriptions.

Sensory analysis – sensitivity testing and taste panel operation

15:45 **COFFEE**

16:15 **Quality systems. Design and application**

ARTHUR BRYANT (Brewlab Limited, University of Sunderland, Sunderland, UK)

16:35 **CLOSING REMARKS**

17:00 **DEPART**