Delegates at this year’s BSP Annual Symposium smell the new products.

Editor’s Notes
by Dr Tony Curtis

This edition features a report on the 29th British Society of Perfumers Annual Symposium ‘New Materials for the Perfumer’. The event, as usual, was very successful with over 100 delegates from all over the world.

ICATS has a programme of continual improvement for the learning material and we have just received the documents for four essential oils profiles written by the world expert on the topic, Dr. Brian Lawrence.

The editorial process will be completed over the summer and copies will be mailed out with the autumn edition of the ICATS Student newsletter.

Also in this edition, we have our regular book review and this time we look at the ‘Handbook of Essential Oils, Science, Technology and Applications’ edited by K Hüsnü Can Başer & Gerhard Buchbauer.

Please let us know if you have any suggestions as to how the ICATS learning materials or our newsletter can be improved.

Contact our ICATS marketing consultant and newsletter designer Tina Carne by email at: tina@fourdegreeswest.co.uk or contact me by email at: tony.curtis@plymouth.ac.uk
Six companies presented a range of materials: PFW Aroma Chemicals, Firmenich, IFF, Takasgo, S&D Aromas and Capua.

A notable feature of this year’s symposium was the absence of any traditional PowerPoint presentations. PFW Aroma Chemicals used a cartoon on ‘A day in the life of a perfumer’, with a lively set of picture posters to provide the ambience! Other presenters made little use of PowerPoint too and focused on smelling and discussing the materials.

The interactive nature of the day’s proceedings was welcomed by the delegates. All of the presentations were interesting. However for a student new to perfumery, the IFF documentation was especially interesting. Limoxal was one of the materials demonstrated. This was described as ‘A diffusive fresh citrus which evokes the sensation of the natural sparkle of Lemon and Orange zest. Particularly effective in combination with natural citrus oils. Adds a slight herbal characterstic enhancing overall strength and volume of compositions.’ Key odour descriptors were ‘Citrus,’ ‘Aldehydic’ and ‘Zest’.


In the documentation for Limoxal, ‘Air’ was highlighted. This is an interesting example to attempt to move from just functional description to emotional possibilities. We do not just describe music in terms of frequency ranges but discuss its emotional impact and structure.

With respect to structure, the ‘with’ and ‘without’ accords again are interesting to perfumery students as the ingredients were not listed in alphabetical order but with some linkage to the desired perfumery effect in the formulation. Thus the green component in the demonstration Honeysuckle Orange Flower Accord was given by cis-3-hexenal, hexyl salicylate, cis 3 and phenyl acetaldehyde glycerine acetal.

We are grateful to IFF for permission to enclose this formula in this newsletter pack (ICATS Students only).

Meet the ICATS Team
Brian Lawrence

Brian M. Lawrence is author of the four essential oil profiles for ICATS which are being edited at the moment. These profiles will be available in the Autumn of 2011 and will be mailed out to existing ICATS students on the Autumn up-date CD.

Brian has more than 30 years experience of essential oils and obtained his PhD in Pharmacognosy at the State University in Groningen, the Netherlands. Since 1976, Brian has been Scientific Editor of the Perfumer and Flavorist. In this position, he has written more than 200 reviews as ‘Progress in Essential Oils’. He has published twelve books, including ‘Mint (Medical and Aromatic Plants – Industrial Profiles)’ and ‘Peppermint Oil’ as well as eighteen book chapters on essential oils.

He has acted as senior editor for the proceedings of the 10th International Congress of Essential Oils, Flavors and Fragrances. Brian has published in excess of 80 original articles and reports. In 1984, Lawrence was the first recipient of the ‘Distinguished Service Medal’ of IFEAT. He was also tutor for the IFEAT conference essential oil workshop at Marrakech in 2010.

Congratulations!

Many congratulations to Emma Catherall on the completion of her IFEAT Diploma in Perfumery.

Her special study (pre 2010 syllabus) topic was ‘The Historical Development of Perfumery: from Antiquity to the Present Day’.
New ICATS course developments

It is now possible to take selected ICATS units in Continuing Professional Development Mode (CPD).

Some people, need to cut short their studies (e.g. change of role in their company).

Discussions have taken place with the ICATS Education Committee and, subject to final ratification, two intermediate awards will be possible for people who have completed a substantial number of units of study but not completed the full IFEAT / ICATS programme.

If ratified the awards will be:

1. IFEAT ‘Certificate in Aroma Trades Studies’ (60 credits achieved)
2. IFEAT ‘Diploma in Aroma Trades Studies’ (120 credits achieved)
3. IFEAT ‘Postgraduate Diploma in Aroma Trades Studies’ (full 180 credits achieved)

Further information will be available later in the year.

Flavour Creation and Evaluation

This is one of two new module workbooks that have been written for the ICATS Flavour pathway in Aroma Trades Studies. The new workbook is in five sections. The first section gives an understanding of the way the linked senses of taste and smell operate and are processed by the brain. The second section explains how art and science work in tandem to turn analytical results into commercial flavours. The third section groups flavour profiles into basic odour categories and sets out the main profiles for the top fifty flavours. The fourth section gives a basic understanding of the main regulatory, cost and operational constraints. The fifth section is devoted to commercial considerations and the final section compares the roles of perfumers and flavourists.

This short last section is reproduced below. The workbook is in the editorial process and will be available at the end of the summer. It will be included in the Autumn ICATS up-date CD for general interest. Perfumers and Flavourists can learn more about their own subject by considering how the other creative professional works.

Flavours & Fragrances Raw Materials

The majority of the raw materials used in flavours and fragrances are identical - it is just the balance that is shifted. Floral, musk and woody notes play a minor part in flavours but they are dominant in fragrances. Fruity and sulphur notes are vital in most flavours but they are viewed with much less enthusiasm in fragrances.

Both sides can learn from the other side’s raw materials and also the way they are used. Very volatile raw materials will inevitably have less interest in fragrances and taste effects are also irrelevant.

Cost Constraints

Many of the components of functional fragrance compositions play a significant role in the cost of the fragrance and formulations are always very cost sensitive.

Fine fragrances are relatively insulated from the cost of the raw materials and only a very few ingredients in a typical formulation have any effect on the margin.

Flavours occupy a place in-between these two extremes. They can be cost sensitive, but the problem is usually isolated to a small minority of the ingredients.

Target Nature

The quantum leap in analytical capability in the second half of the last century had a major effect on flavour composition. Nature may not have been imitated exactly, but she has been an important influence on the construction of flavours.

Fragrances have benefited, or suffered - depending on your point of view - from this trend to a far lesser extent. An in-depth knowledge of the composition of, for example, jasmine absolute, may allow for a degree of cost reduction but it does not alter the basic principles of fragrance construction.

Flavourists probably overemphasize analytical chemistry (and chemistry in general) and perfumers often neglect to gain the benefits of a scientific approach because of the greater perceived mystique of fragrance creation.

Abstract Painting

Flavours and fragrances are both abstract works of art but there is no question that fragrances are fundamentally more abstract in nature.

Nevertheless, all flavours have a significant abstract element to them. No natural target is an ideal representation of the profile and it is always a good idea to subtly steer the character in the direction of the most acceptable notes.

Emotions

Probably because fragrances are inherently more abstract than flavours there has always been a more ready connection between fragrances and emotions than could ever be the case with flavours. This position is very misleading because the end product brands associated with flavours have every bit as much emotional connection as the brands involving fragrances. Aroma profiles, and the emotions associated with them, are very similar indeed for flavours and fragrances and flavourists should use this connection as much as possible.

Evaluators

One clear cut difference between flavours and fragrances is the importance of the evaluator role. I have never heard a perfumer suggest that evaluators were in some way surplus to the creative process. Equally I have never heard a flavourist express any understanding of the need for such a role. In some companies applications technologists fulfil some aspects of the evaluator role in customer projects.

Interactions

Formal interactions are hard to apply and the best results come from informal, personal contact between perfumers and flavourists seeking to learn from each other. With the trend towards lighter fragrances, perfumers have recently been in search of fruity notes from flavourists and this has helped to spark the interchange of ideas. Sulphur notes in particular can be difficult to use, in both flavours and fragrances, and advice in this area is particularly useful. Flavourists have, especially over the past fifty years, tended to be more drawn to a scientific, analytical approach. Perfumers, on the other hand, have kept creativity firmly in place ahead of science. Both sides have erred a little towards the extremes and can help each other to a more balanced approach.

Events calendar

November 2011

IFEAT 2011 annual conference
Further information at: www.ifeat.org

November 2011

A two-day IFEAT / ICATS post conference workshop, ‘Introduction to Perfumery’, is planned to be held in Barcelona on 11th and 12th November.
Further information is available at: www.icatsaromaeducation.com
Obituary - David Williams
8th December 1924 - January 3rd 2011

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n the February 2011 ICATS student newsletter, we reported the death of David Williams. In April 2011 there was a memorial service at Eltham to celebrate David’s life and his contribution to Perfumery Education. The service was attended by many representatives from the industry.

We had discussions with IFEAT and BSP, and ICATS is to mark the contribution of David Williams in three ways. Included with this newsletter is a complimentary copy of David’s last book, ‘Perfumes of Yesterday’, a lifelong research interest.

Annual ICATS / BSP David Williams Memorial Prize

David encouraged distance learning students on the ‘Perfumery Education Centre’ old syllabus ‘IFEAT Diploma’ programme for over 25 years. To mark this, ICATS, with the support of the BSP, will offer an annual ‘David Williams Memorial Prize’. The award is to be given on the basis of the best ICATS course work (excluding dissertation) submitted in a given year. This would be based on ICATS module marks. The first recipient of this award, for 2011, will be announced in the first ICATS Student newsletter in 2012. The award includes attendance (accommodation, conference fee and BSP dinner) at the BSP May Symposium with up to £300 contribution for travel expenses to the symposium.

Annual ICATS / BSP David Williams Memorial Teachers Bursary

ICATS will sponsor a UK teacher with up to £2,000 bursary (travel, accommodation and contribution to teaching cover expenses) to fund a one week work placement in the Aroma Trades to gain practical industrial experience.

David Williams had a great passion for the Aroma Trades and the award is to encourage more teachers to bring Aroma Trades elements into the class room to enthuse and inform young people about the Aroma Trades Industry.

We are delighted that Heather Chapman is the recipient of the first Bursary. Heather is Careers Co-ordinator at Plymouth College (UK) and has arranged a number of ICATS/IFEAT sponsored work placements with CPL (UK) for science students prior to their last year at school before University entry. Heather said on being awarded the Bursary, ‘I am genuinely delighted to be offered the David Williams Memorial Teachers’ Bursary.

‘The opportunity to experience the Aroma Trades industry and better understand the companies to whom I send pupils on work experience will be invaluable. It will help in selecting the pupils to whom the opportunity is offered, as well as enabling me to explain to them what to expect. I will be able to speak knowledgably to other pupils about the opportunities and careers that are possible and sow the seed of interest at a younger age.’

Grace Singh and Emma Woodcock had successful placements with CPL in 2009.

Grace Singh is now reading Biochemistry and Management at Imperial College London and Emma Woodcock is reading Biomedical Science 2010 at Greenwich University.

Contacting ICATS

Email: aroma@plymouth.ac.uk
t.curtis@pbs.plym.ac.uk

Post: International Centre for Aroma Trades Studies
Professional Development and Events
3rd Floor, Link Building
University of Plymouth, Drake Circus
Plymouth, DEVON, PL4 8AA, UK


At almost 1,000 pages, this is more an encyclopedia than a text book. Each chapter is authored by internationally recognized experts. The book is well illustrated. Considerable depth of information is given in the many tables. The primary data sources are well referenced. This authoritative reference work is a must for Aroma company libraries and analytical laboratories working on essential oils. Regrettably at around £150 it is too expensive for individual students.

1. Introduction (K Husnii Can Baser and Gerhard Buchbauer)
2. History and Sources of Essential Oil Research (Karl-Heinz Kubeczka)
3. Sources of Essential Oils (Chlodwig Franz and Johannes Novak)
4. Production of Essential Oils (Erich Schmidt)
5. Chemistry of Essential Oils (Charles Sell)
6. Analysis of Essential Oils (Barbara d’Acampora Zellner, Paola Dugo, Giovanni Dugo and Luigi Mondello)
7. Safety Evaluation of Essential Oils: A Constituent –Based Approach (Timothy B. Adams and Sean V. Taylor)
8. Metabolism of Terpenoids in Animal Models and Humans (Walter Jager)
9. Biological Activities of Essential Oils (Gerhard Buchbauer)
10. Effects of Essential Oils in the Central Nervous System
10.1 Central Nervous System Effects of Essential Oils in Humans (Eva Heuberger)
10.2 Psychopharmacology of Essential Oils (Demingos Savio Nunes, Viviane de Moura Linck, Adriana Lourenco de Silva, Micheli Figueiro, and Elaine Elisabetsky)
11. Phytotherapeutic uses of Essential Oils (Bob Harris)
13. Aromatherapy with Essential Oils (Maria Lis-Balchin)
14. Biotransformation of Monoterpenoids by Microorganisms, Insects and Mammals (Yoshiaki Noma and Yoshinori Asakawa)
15. Biotransformation of Sesquiterpenoids, Ionones, Damascones, Adamantanes and Aromatic Compounds by Green Algae, Fungi and Mammals (Yoshiaki Noma and Yoshinori Asakawa)
16. Industrial uses of Essential Oils (W.S. Brud)
17. Encapsulation and other Programmed Release Techniques for Essential Oils and Volatile Terpenes (Jan Karsen)
18. Aroma Vital Cuisine (Maria K. Kettenring and Lara-M Veniclovich Geeganage)
20. Trade of Essential Oils (Hugo Bovill)
21. Storage and Transport of Essential Oils (Klaus-Dieter Prozen)
22. Recent EU Legislation on Flavours and Fragrances and its Impact on Essential Oils (Jan C.R. Demyttenaeer)