

EVENT REPORT

Following the challenges of the last few years with a world dogged by COVID-19, the IFEAT Conference brought the industry together virtually for a celebration of the flavour and fragrance industry along with the latest and most relevant research on what really matters to those working in our wonderful business. With its theme 'Keeping the Industry Together' it certainly felt like a friendly gathering and despite not seeing each other in person, the excellent Whova platform enabled easy live attendance to sessions wherever we were in the world

Dr Ali Green

Review of the IFEAT Online Conference November 2021

After a warm welcome from Hussein Fakhry (IFEAT Chair), he highlighted current challenges to the industry (in addition to COVID) that would be discussed in panels and by eminent speakers during the conference, notably climate change, sustainability, traceability and legislative and regulatory concerns. He stressed that IFEAT is a figurehead for industry; developing relationships and partnerships with the most eminent scientific, scholarly and regulatory bodies and speaking up for all its members in crucial discussions that will shape the future for all of us. After a short presentation about the in person IFEAT Conference in Vancouver, Canada (October 2022) and the IFEAT Study Tour to South Africa (November 2022) the presentations and round table discussions began.

First up was an overview of CITES (The Convention on International Trade in Endangered Species of Wild Flora and Fauna) from Martin Hitziger who works as an Associate Plant Species Officer. After a broad description of what CITES is and who is signed up for it, Martin explained the three appendices (lists of plants) that form a basis for controls and bans on specific species (there are 38,000 plant species noted: Appendix I plants (only 390) - all trade is prohibited as they are critically endangered or in a, extremely environmentally precarious setting; Appendix II plants are permitted to be traded, but fall under specific controls

with prescriptive rules for each defined species whereas Appendix III plants have controls in some territories.. Of the 1280 MAP (medicinal and aromatic products) are several that are used for essential oils including Pau-rosa, Palo santo, Nardostachys grandiflora and Agarwood. He also mentioned that they were looking at Boswellia (frankincense) and guaiac wood which is not currently on any appendices and there is likely to be a recommendation that it be included soon. It was reassuring to see that such controls are in place to guard against species loss, but the regulations can affect livelihoods, leading to some plants being traded illegally (particularly those with medicinal properties). For more information on CITES and how it might affect your work, please visit www.CITES.org

Two of the key F&F crops were then under the microscope in the first panel discussion - Citrus and Mint: Concerns of small and large farming for the future of essential oils, in a panel discussion chaired by Dominique Roques. For each crop, production on a large industrial scale was considered alongside small scale concerns and a socio-economic overview was provided for the last 18 months or so giving a real-life account of how the pandemic has affected these two central crops. Two major mint producers Vaibhav Agrawal (Norex Flavors) and Greg Biza (RCM International) described the different approaches to



mint farming in Indian Punjab and the US. The two regions offer a massive contrast in scale, with Indian farming concerns typically comprising 1-1½ acres compared with 40 - 10,000 acres in the States. I visited some of the huge mint plantations in the Pacific Northwest on the IFEAT Study Tour a few years ago and the size of the fields was mind-blowing. Facilities in India typically have lower tech than those in the USA but are then less dependent on large amounts of fossil fuels for irrigation, transport and processing. Water has increasingly been an issue in India too, but they have done a considerable amount of work on canals and irrigation systems and Vaibhav feels that good work on sustainable practices has been done with mint farmers. In the US, however, Greg saw the biggest challenges aside from fuel costs were diseases and pests, since herbicides were routine but are now being avoided due to residues and public opposition. Increasing costs meant that some mint farmers were changing to alternative arable crops since they could get better prices for wheat and corn for less input. Two Latin American citrus producers, Manuel Suarez (San Miguel) and Sigifredo Gudiño Jr (Citrojugo) discussed lemon and lime production in Argentina and Mexico respectively and examined the pros and cons of small and large-scale farming from technology to environmental concerns as well as the complex economic and regulatory environment. All in all the discussion was lively and varied offering a spotlight on farming and production across the world to supply the aroma trades.

A major topic for essential oil producers and users was next: a panel discussion entitled Agricultural Residues in Naturals: the Scientific and Regulatory Landscape. This was chaired by IFEAT's Chief Scientific Officer Jonathan Bonello and included participants from different industry areas - John Cavallo (Citromax), Ramkumar Menon (World Spice Organisation), Hans Braeckman (Primoris) and Robert Anderson (Takasago). The use of PPPs (Plant Protection Products) has been widespread and farmers have largely been informed by the pharmaceutical firms supplying them. More recently, however, there has been a move towards natural products in end products, more sophisticated analytical equipment is able to detect residues in smaller quantities and a complex and increasingly stringent

regulatory environment is having a huge effect on farmers who are struggling to reach the same productivity without the use of chemicals. All panellists were really knowledgeable in their own fields, painting a complex picture where life was getting particularly tough for smaller producers and traders who simply can't produce sufficient quantities without the use of PPPs and also with minimal environmental impact. There was a call for a replacement for synthetic PPPs that would sit well within guidelines for sustainable and regenerative farming. In addition, the fact that bans often came into place with little/no notice was highlighted and the need for industry advocacy was stressed. What could have been a very dry subject was really livened up in this excellent and pertinent discussion.

The first day finished with a Green Chemistry presentation by Dr John Warner. For a detailed overview of the issues and solutions in this fascinating and innovative area, please see the previous edition of ICATS News.

The second day kicked off with the topical issue of Traceability: Market Expectations and Business Reality. Where do we Stand? This was chaired by Geemon Korah (Mane Kancor) and Dominique Rocques (Firmenich) with six panellists representing traders across the value chain Nico Laubscher (Eucaforest), Gillian Blemann (Berjé), Tim Valentiner (doTERRA), MiMa Jacarandas (Jacarandas), Eduardo Mattoso (Kaapi Ingredients) and Stephane Zwaans (Takasago). This session was followed by another excellent panel discussion in a similar vein: The Future of Sustainable Natural Products and Biotechnology, Expectations and Reality moderated by Alain Frix (Allchemix) with panellists Guillaume Meunier (Solvay), Maria Julia Oliva (UEBT), David Brocklehurst (Alpha Santanol), Prasobh Prasad (Mane Kancor) and Philip Kuruvilla (Indian National Sustainable Spice Programme). Both panels provided honest opinions about the reality for the producers and those later in the value chain and clearly demonstrated what a complex situation we are in. Doing the 'right thing' is not always possible, affordable and almost always not easy in an industry with such a complex value chain. For a more detailed discussion of the issues raised in these two panels see the article on sustainability in this edition of ICATS News.



After all of the complexity of the sustainability debate, it was time to immerse ourselves in just one crop - Cardamom - with a comprehensive profile presented first by two producers from the key areas of production for this vital F&F ingredient: Guatemala (Elisa Aragon of Nelixia) and India (Mithun Chakravarthy Rajamannar (Cardamom products)). They produced some really informative videos and presentations giving lots of data about how cardamom's botany, how it is farmed, stored and processed into oil. Following this, flavourist and ICATS author John Wright and Jill Costa (Lebermuth) discussed the different flavour and fragrance profiles of cardamom according to its geographic origin and its end uses. IFEAT are producing a socio-economic report on cardamom oil which will be available on their website which already features a number of raw materials here <https://ifeat.org/socio-economic-reports/>. This session formed the first instalment of IFEAT's Online Learning Service, part of the planned expansion of its Educational Programme. More on this exciting venture will be announced later this year.

The last subject to be addressed in this far-reaching conference is one of great interest and concern to those in the industry - an overview of the EU Chemicals Strategy for Sustainability - a Paradigm Shift in EU Chemicals Management given by Sylvie Lemoine of CEFIC, 'the voice of the Chemical Industry in Europe'. This comprehensive presentation clearly explained how the Green Deal (a massive EU initiative), in particular how the 'Zero Pollution' pillar of this massive policy would affect chemical legislation not only causing challenges, but also providing opportunities for businesses within this framework. This new approach moves from a risk-based to a hazard-based basis, which without some nuance that takes consideration of consumer use (not only the context of the product's use such as household or cosmetic but also how such products might be disposed of) could make the fragrance and flavour industry's life very challenging indeed. Mixtures are a particular concern as there is mitigation for unwitting combinations of chemicals that could potentially get into the environment. There is a recommendation that the most harmful should be phased out for non-essential use regardless of whether typical use and quantities within products would actually cause serious problems; with many F&F products deemed 'luxuries' this could be a massive issue for the aroma trades. More information on CEFIC's policies about the Green Deal can be found here: https://cefic.org/policy-matters/chemical-industry-green-deal/?utm_source=IW&utm_medium=newsletter&utm_campaign=IW&utm_id=CEFIC

From specific crop reports and insights, to the nitty gritty of regulations as well as more philosophical ideas such as sustainability and green chemistry, this conference had something of interest to everyone with an interest in the aroma trades. Thank you so much to IFEAT for organising such a relevant, informative and enjoyable event. I can't wait to see everyone in person at the 2022 Vancouver event in October!

VALUE CHAIN



Cardamom plant (*Elettaria cardamomum*): rootstock sprouting leafy and flowering stems, and separate flower. Coloured lithograph after M. A. Burnett, c. 1847. Wellcome Collection.