

PEOPLE



A multi-faceted career in the
flavour and fragrance industry

Dr Peter Greenhalgh

*Peter Greenhalgh at IFEAT Athens closing
banquet 2017. Credit Kate Parkinson for IFEAT*

My direct involvement in the fascinating flavour and fragrance (F&F) industry came somewhat late in life when in my 30th year I joined the Tropical Products Institute (TPI) in London. The previous decade had been spent studying economics and history at the London School of Economics (LSE), the School of Oriental and African Studies (SOAS), Birmingham and Princeton Universities and lecturing in Ghana, as well as completing a Ph.D. on the West African diamond industry – all a long way from the world of flavours, fragrance and essential oils!

TPI was a UK Government scientific research institute with over 400 employees working on post-harvest issues relating to a wide range of products predominantly from Third World countries. It had a large essential oils and spices section headed by Dr Clinton Green, who was closely involved in the development of the trade association IFEAT (International Federation of Essential Oils and Aroma Trades), formed in 1977 to represent the interests of those trading and using F&F ingredients. In the late 20th century the UK still had an important role in the F&F industry and supplying these ingredients. Some of IFEAT's early executive meetings were held at TPI and Clinton for many years was an IFEAT technical advisor, as well as Conference Programme Coordinator, a role I later took over from him.

At the time of my arrival, TPI was a leading global centre for information on essential oils, spices, extracts and related products. Dr Green led a department of approximately 10 people, with hundreds of years of accumulated experience in the sector. Alongside Clinton, other colleagues during my time included Stan Mathews, Tony Dann, David Baker, Mike Milchard and John Coppen, each of whom had researched and provided advice on the production, processing, analysis and marketing of these products to a large number of countries, sometimes on long term overseas assignments to countries including Brazil, Grenada, Indonesia and Paraguay. We benefited from a marvellous library and set of records dating back to the creation of TPI's predecessor, the Imperial Institute, by Queen Victoria in 1894 (now part of Imperial College, London),

established specifically to support the development of production and trade within the British Empire and Colonies. Data were scrupulously recorded in the *Bulletin of the Imperial Institute* (BII), including the results of every sample evaluation, and later *Tropical Science*. Over the decades, TPI worked on a wide range of aromatic materials in numerous countries.

My first project was undertaking market studies on identifying potential products to replace opium production in the Golden Triangle of northern Thailand. Following extensive market research, several very detailed studies were prepared and published by HMSO (Her Majesty's Stationery Office) in the late 1970s early 1980s and circulated free to developing countries as part of the UK Aid Programme. These included market studies on mint oils, culinary herbs and herbaceous essential oils. While their impact on opium production was probably negligible, the law of unintended consequences led to their being of use to other countries and companies. I was told some years later by several Indian companies, that the mint oil market study had proved very useful. In the early 1980s India produced very small quantities of mint oils – today it is the world's largest producer with an annual estimated production of *M.arvensis* oil of some 40,000 - 50,000 MT, *M.piperita* oil 400 MT and spearmint oil 200 MT. The mint oil sector alone employs well over one million people in India.

Other areas of research included detailed published analyses of the "naval stores" industry, now commonly referred to as "pine chemicals" i.e. products obtained from the oleoresin of pine trees. The term "naval stores" started to be used several centuries ago when tar and pine pitch were used in the caulking and weather-proofing of the timbers and rigging of wooden sailing ships. Pine oleoresin products include gum rosin, wood rosin, tall oil rosin, turpentine, pine oil and a whole range of chemicals obtained from turpentine including alpha- and beta- pinenes, which are now such vital ingredients for the perfumer. Remarkable to remember that turpentine in those days was best known as a paint thinner!

TPI colleagues, including myself, also made substantial contributions to other comprehensive published

studies, containing detailed analysis of essential oils and other extracts, including

(i) Purselove, J W, Brown, E G, Green, C L and Robbins, S R J (1981). *Spices*. Vols. 1 and 2. London: pp. 813, Longmans,

(ii) ITC (1986) *Essential oils and oleoresins: a study of selected producers and major markets*, Geneva; pp. 208

(iii) ITC (1982) *Spices; a survey of world markets*, Vols 1 and 2 Geneva pp. 584

Many of the projects I was involved with did not relate only to the F&F sector but covered a very wide range of renewable resources. The commodities on which I undertook research and published studies and articles included silk, vegetables, fruit and other horticultural products, coconuts, fibres (including sea island cotton, jute, ramie, sisal) and edible nuts. All of which gave me the opportunity to visit many countries on five continents. This included a visit to Beijing, China in 1988 to make a presentation at IFEAT's annual conference on market trends and information sources on essential oils. An issue analysed in the presentation was the decline of natural essential oils, particularly in the fragrance sector, in the face of intense competition from synthetic substitutes. The latter, being cheaper, of more consistent quality and with greater regularity of supply, were leading to a decline in "naturals". How times have changed over the past few decades as "naturals" have made an impressive fight back! Also in 2006, prior to my taking over from Clinton Green as IFEAT Programme Coordinator, I made the opening presentation at IFEAT's Cape Town conference, on "*An historical overview of the industry in sub-Saharan Africa*".

Following the re-location of TPI in the late 1980s I moved to work for LMC International, a privately owned commodity consultancy company in Oxford, where I worked for eight years analysing soft commodities, particularly coffee and cocoa, followed by two years at the Institute of Energy Studies in Oxford, where I worked on a range of energy related issues. In 1999 I returned to work at TPI's successor, the Natural Resources Institute (NRI) now based at the University of Greenwich.



IFEAT study tours, an education success story

Since 2007 I have had the great pleasure of working for IFEAT in several roles. The two main ones being the organisation of the annual Conference lecture and workshop programme and the annual study tours. Organising and editing some 25 – 30 presentations at each conference and editing the conference proceedings put me in direct contact each year with dozens of diverse people, companies, countries, topics and issues in the industry. The annual conference proceedings, available to members on the IFEAT website (www.ifeat.org), provide an invaluable source of detailed information and analysis on development and changes in the F&F sector throughout the world.

Since my first involvement in the F&F sector in 1976 enormous changes have taken place, reflecting in part the monumental economic, political, climatic and regulatory changes that have taken place throughout the world. These changes include the global expansion of the sector, the unprecedented growth of

legislation and regulations, industry consolidation and the technological revolution. These trends in the F&F sector are summarised in *Celebrating IFEAT Around the World 1977 – 2017*, the book I prepared to celebrate IFEAT's 40th Anniversary in 2017. Copies of the book are available from the IFEAT Secretariat. Against the background of the dramatic changes in the F&F industry the book traces IFEAT's growth including details of the annual conferences, study tours and its support of scientific research and educational programmes, including ICATS/Plymouth and Reading Universities.

A very successful feature of IFEAT's educational activities has been the organisation of study tours for members. Started in 2005, IFEAT study tours have gone from strength to strength. They have proved to be a great learning experience – in the company of other industry specialists, who might be competitors but become good friends. This has facilitated the growth of the international IFEAT family. While

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CELEBRATING IFEAT AROUND THE WORLD 1977 - 2017

each study tour follows a similar format, they remain very different, predominantly because of the country and companies visited as well as different participants. This diversity of people, expertise, aromatic ingredients, products, processing techniques and range of end uses have all contributed to making the F&F sector such a fascinating and beautiful sector to be involved with. In part, this is reflected in books I have prepared after each annual study tour, which profile the essential oil sectors and companies visited in such diverse countries as Indonesia, Brazil, Paraguay, India, China, France, USA, Bulgaria and Spain.

What of the future? This has become even more difficult to predict in the light of the COVID-19 pandemic. Many things will be very different from 2020 onwards – the economy, health and welfare, travel, security and levels of trust. However, it is likely that the enormous changes over the past four decades in the F&F sector outlined above will continue and probably accelerate. Topics of growing

importance will include:

- supply side issues, particularly in relation to naturals and their sustainability and traceability;
- scientific and technological research and innovation into a wide range of issues: pesticides, adulteration, carbon footprint, medicinal and therapeutic benefits, artificial intelligence, robotics, computing, new product development and biotechnology;
- high-level educational programmes for both company employees and owners in the diverse areas the industry covers e.g. naturals, synthetics, production, processing, commerce, regulatory and quality assurance and control.

Whatever, your particular interests and expertise, there will always be something in this fascinating industry to attract you!

IFEAT 40: Celebrating IFEAT Around the World 1977 – 2017, researched and written by Peter Greenhalgh

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