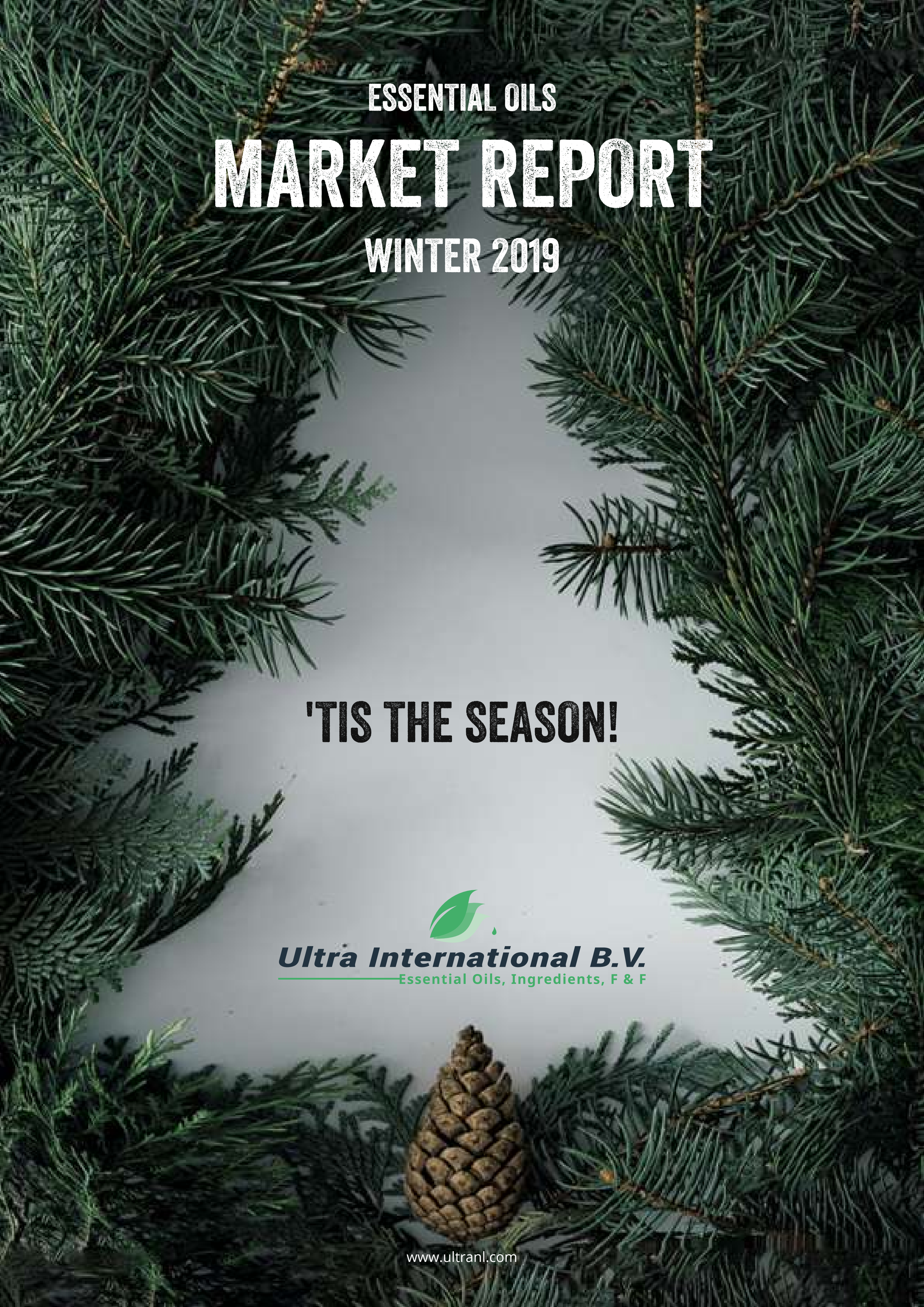

ESSENTIAL OILS

MARKET REPORT

WINTER 2019

'TIS THE SEASON!

Ultra International B.V.

Essential Oils, Ingredients, F & F

www.ultranl.com

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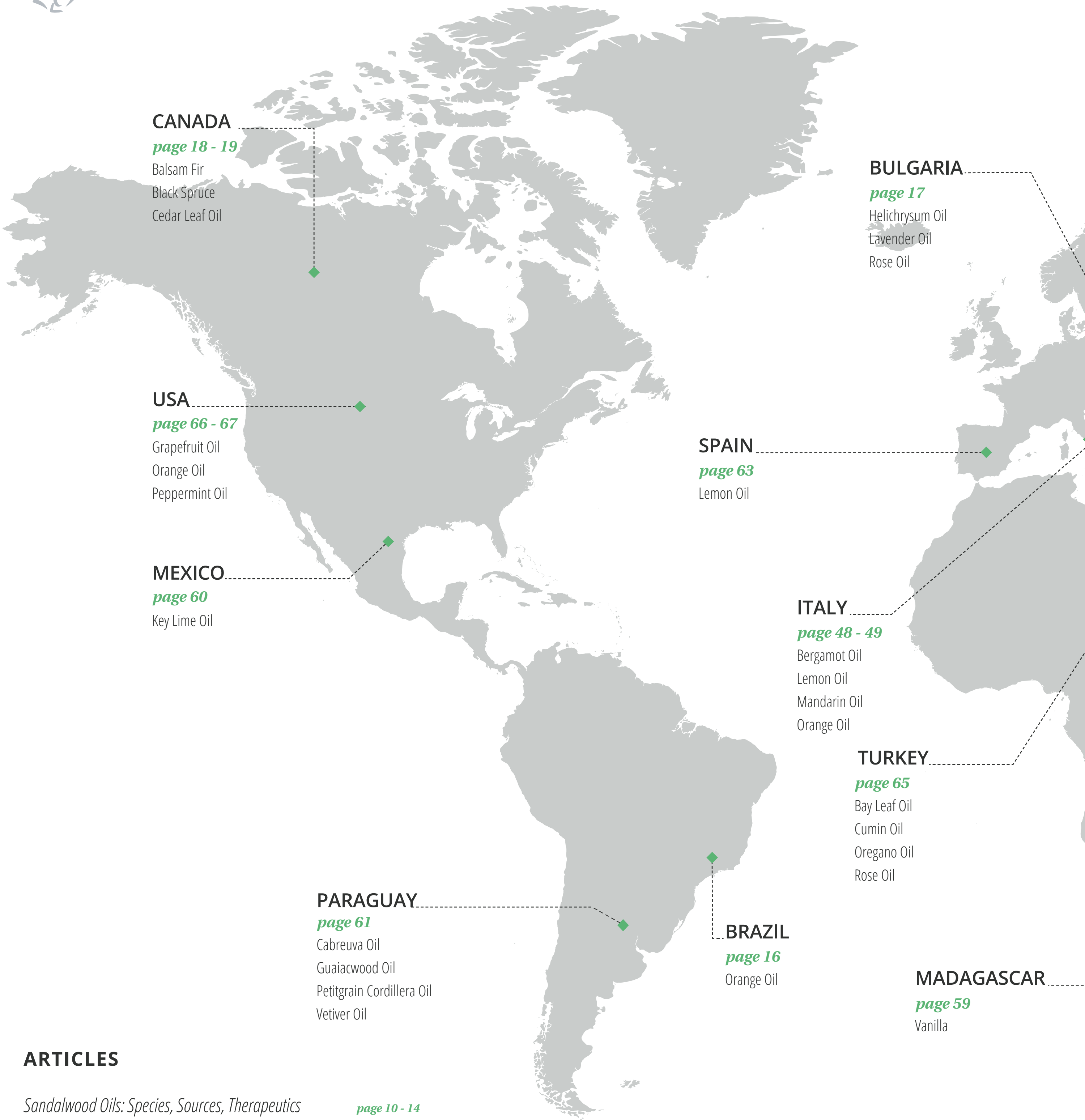

ARTICLES

Not all farewells are sad. As we look back at the year that was and gear up to bid adieu, it fills me with pleasure. This is a farewell that gives us another reason to celebrate, for 2019 was a landmark year with several milestones achieved. Of course, it's always a good time to raise a toast to the unswerving faith and support of our teams, partners, and friends across the globe. We look forward to another eventful year of working with you all.

It is always lovely to see hard work yield results. 2019 was just a pitstop in the 10-short-of-a-century journey of Ultra, a reflection of the hard work of three generations that has gone into shaping and making the company what it is today. It is not easy to encapsulate 90 years into a small writeup; however, we have tried to walk down the memory lane of Ultra's 90-year journey.

IFEAT has always been an intrinsic part of Ultra. What a proud moment for us at IFEAT Bali 2019 when Ravi, as Joint Chairperson, along with Stephen Pisano, raised the bar for future conferences. IFEAT, which was established with the involvement of Mr Sant Sanganeria of Ultra, has grown from strength to strength. This year the conference attracted a record attendance of 1,468 delegates, and 77 accompanying persons from 67 different countries. The intensive lectures, regulatory and round table sessions, and trade exhibition were tempered with a grand dose of cultural extravaganza. The conference was a runaway success.

It fills me with pride to share another milestone which we have been working towards. 2019 witnessed the incorporation of Ultra UK. With this, Ultra expands footprints onto English shores; and puts us in a position to cater to small packaging businesses. It also marks our foray into a brand-new range of products such as vegetable oils and butters.

Unfortunately, after sharing news of our flight, we have to bring you to ground with some sobering news. Reports from across the far-flung fields where we find our treasure trove, show prices for the majority of naturals have been on the decline. In fact, orange oil hit its nadir with a historical low along with prices of terpenes. This augurs well for the industry since it opens a window of opportunity for increased buying alongside hope that the coming year will usher in greater stability in terms of pricing.

Far down in the southern hemisphere, plantations in Australia have been grappling with the ravages of bush fires. Home to the premium, much-coveted tea tree oil, this has turned out to be a costly blow to the industry.

We are pleased to introduce the range of Sicilian naturals in this report. This travel diary describes the range of zesty Sicilian naturals. Our explorations of the various available species of sandalwood have been extremely enriching. Here we share our findings regarding their descriptions, origin, and sustainability efforts.

Before I sign off, I take this opportunity to send you warmest greetings for the New Year. Here's looking forward to another scent-tillating year ahead.

Season's greetings, Merry Christmas.

Warmest,
Priyamvada Sanganeria
Director, Ultra International BV

golden grove

NATURALS

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BUDDAWOOD OIL

Eremophila mitchellii *Australia*

The processing and production of buddhawood continues at a healthy pace. Several players are focusing their attention and effort towards ensuring a reliable supply of wood with a view to augment oil production. The coming six months look encouraging with oil production set to go up. One of the bigger producers has been working on maintaining continuous steady supply. It is heartening to note that in the wake of some new formulations introduced by some key players, the market has witnessed a rise in the enquiries for buddhawood oil. The segment has seen the rekindling of interest and is gaining traction in the market.

AUD 555.00 /kilo

CYPRESS OIL BLUE

Callitris intratropica *Australia*

This fascinating, vividly-coloured, cobalt blue oil has captured the imagination. After numerous initiatives to increase production and processing, there is now a steady supply of blue cypress oil. With many new growers, there is now an established and reliable flow of stock of oil. Availability is tight over next two months; and clients are advised to book their orders at the earliest.

AUD 495.00 /kilo

EUCALYPTUS HORISTES

Eucalyptus kochii Australia

Australia's eucalyptus production continues to remain secure with sound production facilities and logistics in place. The established plantations continue to operate through implementation of crop rotation. However, this might affect the eucalyptol content, which may go down to an approximate average of 80%. What continues to pose as a challenge is the transportation of biomass to the distilling plants. This interferes with the seamless supply of raw materials, input costs and timelines. And consequently it affects the ability to increase production. In the current situation the supply is able to meet the demand.

AUD 32.00 /kilo

KUNZEA OIL

Kunzea ambigua Australia

The production of kunzea has not yet taken off in a big way. Wild harvesting takes place only in certain remote regions; and distillation is still on a humble scale. Naturally, volumes produced are low, especially this year, considering the extreme weather conditions. There is almost no oil available. One of the renowned producers is working towards establishing more plantations to increase cultivating areas and also standardise the product. At the moment, there are zero stocks, but 2020 promises a better picture with, hopefully, voluminous availability.

AUD 560.00 /kilo

LAVANDIN GROSSO OIL

Lavandula hybrida Australia

The cultivation and processing of *lavandin grosso* in Australia is still in a nascent stage; and in its current avatar, resembles that of a cottage industry. As such there are no oil reserves available. However, it is heartening to note that some key players are taking the initiative to develop this segment, and have already started on-ground collaborations with growers. Similarly, *lavender angustifolia* growers are also being encouraged to come on board for essential oil production. Though of the two, *lavandin grosso* is expected to be more suited to Australian conditions.

AUD 170.00 /kilo

LEMON MYRTLE OIL

Backhousia citriodora Australia

This oil has been in a bit of trouble with large quantities of synthetic material infiltrating the markets. In fact, C14 tests have identified several samples with synthetic adulterations. The natural material is in low supply; therefore, quantities of oil are nothing to write home about. GGN has made significant effort and investment towards establishing a 60-hectare plantation to improve oil production and increase volumes. Compared to oil, the dry leaves offer better returns. This has shifted the focus of growers and most of the major plantations are moving towards dry leaf production to address the growing needs of the culinary industry.

AUD 350.00 /kilo

LEMON SCENTED TEA TREE OIL

Leptospermum petersonii Australia

The plant is indigenous to Northern New South Wales where production is rather limited at present. The distiller of note is GGN, the biggest supplier, but a company also involved in establishing plantation production at the place of origin. The previous stock is depleted and currently there is 300 Kg of oil on offer, though efforts are on to increase quantities.

AUD 130.00 /kilo

MANUKA OIL

Leptospermum scoparium Australia

The manuka industry has seen some upheaval. Currently, some stocks of the +25% b-triketone (MBk) material are available in limited quantities. After this stock is consumed, this material will not be replenished or produced. Instead, with the implementation of some changed product specifications, +20% MBk variant will be distilled. Stocks will now be augmented and available in the next season. As of now, prices remain stable.

AUD 1045.00 /kilo (25% BTK)

AUD 945.00 /kilo (20% BTK)

ROSALINA OIL

Melaleuca ericifolia Australia

There are two specific varieties of Rosalina, Northern and Southern. The northern variants show an increased linalool and lower cineole content. As we travel southwards, the southern geographical sourced genetics display a contrasting rise in cineole with considerably decreased linalool component. Southern Rosalina is a wild harvest, and has proved to have a very mixed and varying chemical composition.

Rosalina production is small at present. Not only does GGN hold the major supply, but also the foremost position as the largest global supplier of Rosalina. Some more plantations are under way. 2020 is earmarked as a landmark year, when most of the areas of production will come online. Most of the plantation processing is located in northern regions with the wild harvested material available in the southern part. GGN implements strict standards for the Northern Rosalina. This year, the drought has adversely affected the biomass production resulting in damage. There is around 300 Kg of oil in stock but efforts are on to enlarge volumes.

AUD 280.00 /kilo

SANDALWOOD VANUATU

Santalum austrocaledonicum Australia

A comparatively new entrant into the sandalwood market, work is still on to make this a viable product. Most of the plantations are engaged in improving their operations put in place to process an uninterrupted supply. This will enable them to secure ongoing stock and cater for the escalating demand for the oil. GGN in particular is working to establish new plantations and more intensively, on the product quality over the next year.

USD 1900.00 /kilo

SANDALWOOD W. AUSTRALIA

Santalum spicatum Australia

Not much is happening for this oil. With just about 100 Kg of oil as available stock, Australian plantations are gearing up to increase production and enhance stock levels in 2020.

USD 1350.00 /kilo

SANDALWOOD N. QUEENSLAND

Santalum lanceolatum Australia

This sandalwood is quite unique from the other variants in the market. What makes it stand out is its distinctively sweeter floral aroma with spicy, wood notes. The species is considered a weed in the pastural regions. The wood is wild harvested and yields a good quality oil. Steady production has enabled distillers to meet the current demand. However, there is a scarcity of wood supply, and to mitigate this, GGN has entered into a collaborative wood harvesting agreement. There is zero stock of oil, but with enhanced processing the new batch from the season's harvest is expected to hit the shelves in early 2020.

USD 1050.00 /kilo

TEA TREE OIL

Melaleuca alternifolia Australia

It has been a catastrophic year for the tea tree industry. The worst recorded drought hit the plantations and is still hindering growth. Not just tea tree but growth of almost all crops have been adversely impacted. Compounding the problem is the challenge of bushfires with many farms reporting complete burning down of plants. Though it is early to confirm, several farms have been struggling. Some, which have not been negatively affected by bush fires, have implemented irrigation under management to offset the effects of the drought in an effort to continue with their production cycles. At present, there is no stock available. Demand has been considerably low for some months, and consequently, stock movement has been low.

AUD 52.00 /kilo

WHITE CYPRESS OIL

Callitris intratropica Australia

Many of the plantations have been ravaged by bush fires. However, the exact extent of the damage to wild harvested raw material earmarked for processing is yet to be assessed; though it is hoped that the loss is at a minimum. The demand for this oil has been inching up gradually; and has provided an impetus for adding production facilities. Annual production too has been stepped up. With this, more reliable channels for supplies have been established and available for distillers. The producers are now in a position to fulfil long term contracts and are offering around 100 to 500 Kg of oil.

AUD 200.00 /kilo

SANDALWOOD OILS:
SPECIES, SOURCES, THERAPEUTICS AND SUSTAINABILITY

Julia Cheek and Sylla Sheppard-Hanger, Atlantic institute of Aromatherapy

Sandalwood essential oil has been used for perfumery, medicinal, religious and cultural purposes over many centuries. The trees are all similar to varying degrees, as they are semi-parasitic which means they absorb certain nutrients such as phosphates and nitrates from the host trees via root connections. The heartwood is harvested and ground down into chips for steam distillation to produce the fragrant essential oil.

The Santalaceae family has 18 species belonging to the genus Santalum; however, we limit this discussion to the most common ones used for essential oil production. Besides *Santalum album* we focus on these species: *S. austrocaledonicum, S. macgregorii, S. lanceolatum, S. peniculatum*, and *S. spicatum*.

HISTORY

Sandalwood has a history of more than 5,000 years in India. It is used as a fixative in modern times for many flavour and fragrance industries, cosmetics, perfumes, incense sticks, flavoured chewing tobacco, and many therapeutic medicines. Sandalwood is considered very important in Hinduism, Buddhism and Islam.

In Hinduism and Ayurveda, sandalwood is used in prayers for cremation and other ritualistic ceremonies as it is thought to bring one closer to the Divine. In Buddhism, the scent of sandalwood is said to aid in alertness while in meditation. It is often found in idol carvings in Buddhist temples. In China and Japan, the wood was also used in religious carvings and to decorate deities.

The ancient Chinese and Egyptians used sandalwood for medicinal purposes. The wood was also widely used in folk medicine for treatment of common colds, bronchitis, skin disorders, heart ailments, general weakness, fever, infection of the urinary tract and mouth and pharynx, liver and gallbladder complaints, hypertension and other neurotic concerns. The oil was still most notably used as an antiseptic and antibacterial agent well into the 1930s. In Hawaii, sandalwood oil was traditionally used to scent coconut oil (for application to the hair and body) and cultural artifacts, such as tapa cloth.

The oil became widely popular for its use in the flavour and fragrance industries in the late 18th and early 19th centuries. Sandalwood has been most notably used by perfumers as a fragrance fixative for the past 100 years. It is used as a flavouring agent in the Indian flavouring industry, and as a medicinal ingredient in pharmacopoeia, Ayurveda and Unani medicines for over a century.

Today, sandalwood oil is still highly prized and valued in aromatherapy, cosmetics, the flavouring industry, medicine and perfumery.

INDIAN SANDALWOOD
Santalum album

Santalum album is native to India, Indonesia, and the Malay Archipelago. It is also grown in Australia. Height of the tree ranges from 4-9 metres. The tree can grow to one hundred years of age. Sandalwood is considered sacred in parts of Asia and India and is used in religious ceremonies.

Odour Profile: According to Tony Burfield, the genuine oil is pale yellow to yellow, a somewhat viscous liquid, it has a persistent strong characteristic odour, which can be described as a rich, smooth sensual precious wood note with a powerful radiance, with some perfumers describing an animal aspect. Drydown is powerful, sweet, creamy, radiant, fine, and woody rather milky and balsamic notes.

Therapeutic Characteristics and Uses: Sandalwood is considered a gentle oil and suitable for all skin types. The oil is known for its antibacterial, anti-inflammatory, antifungal, antiseptic, emollient, expectorant, and muscle relaxant therapeutic properties.[i] It is known to aid in sleep, help with anxiety and depression. Useful for its powerful antibacterial properties, sandalwood is often used to treat various skin conditions and respiratory issues.

Sustainability: *Santalum album* is currently listed and has been listed since 1998 as Vulnerable on the IUCN Red List, especially in its native growing regions.[ii] This current status is limited only to that of the wild population in its native growing regions of China, India, Indonesia, and the Philippines and does not consider the cultivation in areas such as Australia. Although conservation plans have been put in place to revive sandalwood's availability, it will take several more years before harvesting can take place and the vulnerability status can be removed. Australia set up several plantations of the Indian Sandalwood (*Santalum album*) decades ago, which is now being harvested.

AUSTRALIAN SANDALWOOD
Santalum spicatum

Australian Sandalwood is native to southwest Australia. It is one of 4 highly valued Santalum sandalwood species in Australia. It can grow to 6 metres, which is shorter than the Indian *Santalum album* variety. The plant produces a fruit with an edible hard-shell kernel and the seed oil is now produced and finding a place as a lightweight lipid addition to formulas.

Odour Profile: Burfield describes the oil as a pale yellow semi-viscous liquid, sometimes almost water-white, with woody odour that has some of the rich creamy sensual notes of sandalwood East Indian but with a terpenic, woodier, cedary character.

Sustainability: *Santalum spicatum* is an ecological and sustainably grown species. Australia is currently leading the world in conservation, sustainable cultivation and harvesting of sandalwood for the *Santalum spicatum, Santalum lanceolatum*, and *Santalum album* species. The largest sandalwood plantations worldwide can be found in Australia.

HAWAIIAN SANDALWOOD

Santalum peniculatum and Santalum freycinetianum

Hawaiian Sandalwood *Santalum peniculatum*, commonly known as Mountain Sandalwood, Hawaiian Sandalwood, or 'Iliahi' is native to Hawaii. *Santalum paniculatum* grow from 3-11 metres in height.

Odour Profile: This species produces a pale yellow to yellow hued essential oil, which has a warm, soft balsamic and woody odour. The drydown is largely unchanged at 24-48 hours and persistent for very much longer. [iii]

Sustainability: There are currently no local laws in place to regulate cultivation, harvesting and conservation of this vulnerable species. Former local City Councilman, Leigh-Wai Doo, is working hard to pass legislation that would provide monitoring and harvest and export restrictions in place, ultimately leading the species to be regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).[iv] Some additional efforts have been put in place to begin conservation and regrowth of this species through the efforts of the Hawaiian Legacy Reforestation Initiative "Plant a tree program". [v]

NEW CALEDONIA OR VANUATU SANDALWOOD

Santalum austrocaledonicum

Santalum austrocaledonicum is native to the New Caledonia and Vanuatu Islands of Southeast Asia in the Pacific, and India. The tree grows to around 5 to 12 metres (16 to 39 ft) tall. The tree flowers after year 6-7 and bears an edible fruit.

Odour Profile: The odour is immediately recognisable as sandalwood but is more terpenic and ambery than sandalwood oil East Indian, less radiant and less intensely woody but with some of the creaminess. Drydown is weak woody-creamy. It is far less strong than the East Indian oil from *S. album* and has none of the radiance.[vi]

Sustainability: *Santalum austrocaledonicum var. glabrum*
Santalum austrocaledonicum var. glabrum also known as New Caledonia and Vanuatu Sandalwood. It is listed on the IUCN Red list as having a vulnerable status. [vii]

QUEENSLAND SANDALWOOD

Santalum lanceolatum

Santalum lanceolatum, is a tree native to Australia. It is commonly known as desert quandong, Northern Queensland Sandalwood, and in some areas as burdardu. It is found more abundantly in central Australia. The essential oil has a smooth, fragrant, earthy, woody aroma with a soft gentle hint of honey, spice and floral notes. A citrus and rose like undertone is also present.

Odour Profile The oil is pale yellow to greenish, a somewhat viscous liquid, it has a persistent strong characteristic odour, which can be described as a rich, smooth, milky, woody and green powerful note. Drydown is powerful, sweet, woody and earthy.

Sustainability: There is an abundant amount of wild harvest timber available, small amounts have been used for carving and furniture. Traditionally farmers have been removing the timber from agricultural land and this has been collected for trading. There are no plantations established.

PAPUA NEW GUINEA SANDALWOOD

Santalum macgregorii

Santalum macgregorii Sandalwood is native to Papua New Guinea and grows between 100 and 1,500 metres and is not readily available throughout the region. This sandalwood variety is used for carving and burned as incense and yields aromatic oil used in perfumes.

Odour Profile: The slightly viscous clear oil of Papua New Guinea Sandalwood presents a uniquely different top/heart-note from other sandalwoods. The odour can be described as a sweet floral top-note that quickly transitions the floral notes with a deep, rich vanilla/balsamic heart-note upon drydown leaving behind deep oriental accords mixed with a woody aroma to finish.

Sustainability: All government-controlled *S. macgregorii* has been harvested leaving only a select few privately-owned landowner crops available for trade.

FIJI SANDALWOOD

Santalum yasi

Santalum yasi can be found in Fiji, Samoa and Tonga. Yasi is a small shrub or tree that grows up to 8-10 metres in height. This species grows in the lowland, drier, more open forest. Traditionally included in mixed cropping agroforestry cultivation systems, the species hybridises readily with *S. album* resulting in variable quality of oil depending on the sourced trees.

Odour Profile: The odour can be described as soft, sweet, woody and balsamic.

Sustainability: The Forestry Department in Fiji, with assistance from the AUS-Aid funded SPRIG (South Pacific Regional Initiative on Forest Genetic Resources) programme, have put conservation and harvesting programmes in place. They distribute seedlings among local villages who are growing the crop as a source of monetary income.

In conclusion, Sandalwood Essential Oil is making a comeback in market availability. But we still have to be vigilant in our consuming of this precious essential oil so there will be availability in the future.

Sylla Sheppard-Hanger is the Founder and Co-Director of Atlantic Institute of Aromatherapy, the oldest aromatherapy school in the US continually run by a practising aromatherapist. With over 40 years' experience as an Aromatherapy Practitioner and educator, she is also author of The Aromatherapy Practitioner Reference Manual, the Aromatic Spa Book and the Aromatic Mind Book. Besides creating the Aromatherapy United Injury database, a collection of safety data reports on the adverse effects of essential oils, in 2001 she also founded the non-profit United Aromatherapy Effort Inc. to collect and disseminate aromatherapy products to first responders and victims after disasters.

Julia Cheek is the Research Assistant for Atlantic Institute of Aromatherapy. She has a Masters in Business Administration and Bachelors in Marketing and is currently working to complete her Aromatherapist certifications. She established and runs a natural products review group on Facebook called the Healthy Lifestyle Consumer Review group. It is a consumer driven review group for natural and holistic products including cosmetics, perfumery, hygiene and healthcare products and their respective companies.

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ORANGE OIL

Citrus sinensis *Brazil*

A significant world player in the orange segment, Brazil's citrus belt recorded abundant rainfall during the early months of 2019. This helped retain soil moisture and the trees to flourish. However, just at the beginning of the harvest, May turned drier and rainfall became scanty. Data from Somar Meteorologia reveal 111 ml of precipitation from May to August in the citrus belt, a drastic 32% drop below its historical average.

The September 2019 Fundecitrus report forecast for 2019-20 season for São Paulo and West-Southwest Minas Gerais citrus belt puts the total orange crop at 388.42 million boxes of 40.8 kg each. Of this, around 27.14 million boxes are attributed to the Triângulo Mineiro region. The Hamlin, Westin, and Rubi variety of orange is pegged at 76.27 million boxes. Other early season fruit are expected to go up 1.16% to touch 19.98 million boxes. The figures for the Pera Rio stand at 116.2 million boxes; Valencia, and Valencia Murcha at 128.3 million, and Natal oranges are expected to notch up a crop size of 47.67 million boxes.

The harvest season is in full swing, though progressing slowly for the mid-season and late oranges. This is anticipated owing to the higher harvest volumes of the early fruit. The demand for orange oil has been declining in the global arena. The price of orange oil witnessed a historical low during IFEAT 2019. Even then there was rather slow movement in the market as clients were expecting prices to slide even lower. However, there seems to be an end to this situation as such low prices are not sustainable. Prices have been moving upwards and now is a good time to cover long term requirements of orange oil.

USD 6.00 /kilo

2019-2020 FUNDECITRUS ORANGE CROP FORECAST UPDATE FOR SAO PAULO AND WEST-SOUTHWEST MINAS GERAIS CITRUS BELT-SEPTEMBER/2019

CITRUS BELT	Crop Forecast May 2019-20			Crop Forecast Sept 2019-20		
	Per Tree (boxes/tree)	Per Hectare (boxes/hectare)	Total (1,000,000 boxes)	Per Tree (boxes/tree)	Per Hectare (boxes/hectare)	Total (1,000,000 boxes)
Hamling, Westin and Rubi	3.02	1,331	76.97	2.99	1,319	76.27
Other early	2.88	1,116	19.75	2.49	1,129	19.98
Pera Rio	1.85	926	116.2	1.85	926	116.2
Valencia and Folha Murcha	2.20	1,018	128.3	2.2	1,018	128.3
Natal	2.47	1,107	47.67	2.47	1,107	47.67
TOTAL	2.24	1,051	388.89	2.23	1,050	388.42

The crop management practice and systems in Bulgaria are still not as evolved as some other countries, and most farmers are susceptible to the vagaries of economic fluctuations. There have been poor returns of some of the crops last year; this has prompted a widespread movement away from volatile crops like lavender, blue chamomile and melissa. Farmers are increasingly opting for cultivating traditional crops that are expected to fetch better returns on investment this year. While farmers and growers demand a stable pricing regime for their crops, distillers are unable to commit due to the speculative nature of the market. Apprehensions of a tremendous price drop for melissa and blue chamomile are prevalent, but the industry hopes to get back on their feet with an upswing in demand and subsequent prices in some time.

HELICHRYSUM OIL

Helichrysum angustifolium *Bulgaria*

This plant, though sold by Bulgaria, has not really made much of an impact among the farming community. It is wild harvested in limited amounts. This has led to growers favouring other conventional crops in an effort to garner a stable price and margins on their investments. The situation remains a little sensitive since the distillers are reluctant to commit to this kind of a payment structure since the market is extremely volatile and speculative.

Euro 990.00 /kilo

LAVENDER OIL

Lavandula angustifolia *Bulgaria*

The average normal production of lavender oil in Bulgaria is around 300 MT. This year has seen a significant increase in both acreage as well as the volumes of oil extracted. Lavender has fared well with a robust crop production this year. Consequently, prices have taken a sharp fall by almost 40% of last year. At present, Bulgaria boasts more than adequate stocks of lavender oil at the farm level. On the market front, there are varied oils of differing qualities and prices are being quoted depending on the quality of the oil. With lavandin oil commanding much higher prices, the market hopes to mobilise the surplus stock, since it is being offered at more attractive prices. However, a large portion of the surplus lavender too, is of inferior quality.

Euro 66.00 /kilo

ROSE OIL

Rosa damascena *Bulgaria*

This year the yields of rose oil have been lower but the costs of production higher. Though there are sufficient quantities of oil available in the market, this has ensured that there is no price correction on the cards. Prices for good quality rose oil remain at prohibitive levels.

Euro 7500.00 /kilo

THE CANADIAN **COLLECTION**

BALSAM FIR

Abies balsamea *Canada*

Collected through wild harvesting, balsam fir oil is not available in large quantities. Canada produces just enough in limited quantities for a niche clientele.

USD 69.00 /kilo

BLACK SPRUCE

Picea mariana *Canada*

Supplies of this rare oil is rather limited and prices are high.

USD 135.00 /kilo

CEDAR LEAF OIL

Thuja occidentalis *Canada*

Canada holds adequate supplies of this oil. The stock and quality are reasonably good; however, prices have hit a record low in the last decade. It is difficult to ascertain whether the current material will last till next season in June.

USD 68.00 /kilo

CASSIA OIL

Cinnamomum cassia China

This year has not been a good one for cassia wood. Prices have fallen drastically and several producers still have not been able to sell their stocks from the first half of 2019. The harvest season is ongoing, but there are few takers for organising collection of cassia wood, twigs, and leaves from the mountainside. The factories too are reluctant considering many distillers engaged in processing the material from autumn will stand to lose money on their initial investments.

A glimmer of hope lies in the fact that the lower-priced stock from Vietnam has already been consumed. Consequently, attention has shifted back to the Chinese variant to fulfil global requirements. The outlook is positive since prices have inched up in the last couple of weeks.

There is an overall slowdown in the demand for other cassia oil isolated products like natural benzaldehyde, cinnamaldehyde. The flavour market for these has been sluggish. However, other derivatives like natural cinnamyl acetate, coumarin, and omethoxy cinnamaldehyde are witnessing healthy demand. There is limited supply of these, which has significantly pushed up the prices in a short time.

USD 36.00 /kilo

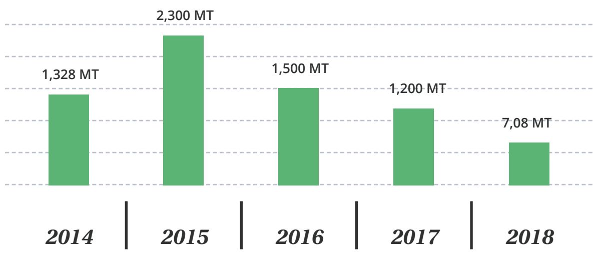
CITRONELLA OIL

Cymbopogon winterlanus China

There has been a sharp drop in price this year. This has been discouraging for farmers. They are reluctant to sell at such low prices. The price is not expected to fluctuate in future.

USD 15.00 /kilo

ESTIMATED PRODUCTION OF CITRONELLA OIL



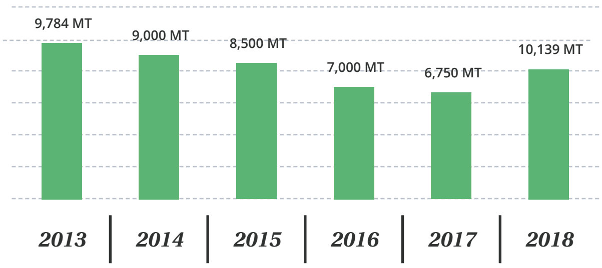
EUCALYPTUS OIL

Eucalyptus globulus China

China's Yunnan province is famed for the eucalyptus tree and has quite a few plantations for oil extraction. Usually, the harvest is between July and September and between November and February. The year's main crop season begins in November. Industry watchers are hoping for a healthy supply of raw material, accompanied by a slight easing of prices. Last year, there was an acute deficiency of raw material and prices had skyrocketed to touch the zenith. However, now the situation has eased out with steady raw material supply and a reduction in price. Though many of the farmers are not happy with these price points, citing that this is the bottom line for their production costs. However, the coming months will show how the dynamics pan out and what the situation is. In the eventuality that some farmers refuse to distil the leaves, there is a strong chance of a break in the raw material supply chain.

USD 18.00 /kilo

ESTIMATED PRODUCTION OF EUCALYPTUS OIL



GARLIC OIL

Allium sativum L. China

Pollution has been a major deterrent this year. The impact on the garlic crop has led to many distillers stopping production. Those who are going ahead with their plans of extracting garlic oil are doing so at their own risk. This oil, not as popular as ginger, does not command a robust demand. The industry is fervently hoping for an arrest in the ascent of garlic oil prices since production costs have already soared. With slack in global demand, prices remain steadfast albeit on the higher side.

USD 130.00 /kilo

GERANIUM OIL

Pelargonium graveolens China

Geranium oil has witnessed a stagnation in demand for some months now. This year the crop size is encouraging and the harvest will be completed by November. Some of the local buyers have placed orders for geranium oil as investments. With the coming of the end of the season in a couple of weeks, the crude oil price has started to climb.

USD 140.00 /kilo

GINGER OIL

Zingiber officinale China

The government continues to be strict in enforcing the environment policy. As a result, several factories in China's main oil producing regions have decreased their production and have been bound to increase input costs to meet the new compliance standards. However, the next three months augur well. Going by past trend, the Chinese New Year, which is now imminent, witnesses the strongest demand for ginger root. Despite reasonably good demand, the prices of ginger root are a tad subdued compared with past weeks. As per the initial reports, the new crop does not meet the predicted output levels.

USD 65.00 /kilo

JASMINE OIL

Jasminum sambac China

Quite delicate and among the most beautifully fragrant flowers, jasmine requires meticulous planning in its cultivation. China's Hengxian Country in Guangxi is home to about 108,000 acres of jasmine plantations. They produce about 90,000 tons of flowers and around 70,000 jasmine tea. Abundant sunshine, sufficient rainfall and selenium-rich soil makes a perfect team for jasmine. It is strictly monitored by the government. Compared to last year, prices have reduced.

USD 2100.00 /kilo

LITSEA CUBEBA OIL

Litsea cubeba China

The natural citral market, like many other commodities, has been impacted by the trade tensions between USA and China. Last year the berries were severely damaged by more than usual rainfall. This year too there was more than abundant rainfall; but fortunately it did not destroy the crop. However, the copious rainfall did have the effect of lowering citral content in the litsea berries. Initial reports indicate a good crop on the lines of last year. Last year's limited amount of carryover oil will be a tad cheaper than the fresh stock of this year due to an increase in labour costs. Demand remains constant and strong and therefore prices are expected to firm up. It is advised that requirements are booked at the earliest.

USD 28.00 /kilo

MAGNOLIA FLOWER OIL

Magnolia alba China

The Chinese tea industry is soaring. It generates considerable demand for fresh flowers like jasmine and magnolia, favoured ingredients used to enhance the flavours of tea. Usually harvested over two crop seasons, the spring harvest takes place from mid-May to end of June; followed by the autumn harvest. The autumn season has commenced and is on track to be completed by the middle of next month. This year, with the mounting labour cost for picking the flowers, prices of the fresh flowers too have escalated by at least 10%. Considering the higher input costs this year, current prices for magnolia flower oil is comparatively on the lower side. It is hoped that the coming of the fresh batch from the new production will buoy the prices to a suitable level.

NA

NEROLI FLOWER OIL

Citrus aurantium China

Neroli is harvested in May and though we are at the end of the year, supply at the moment is rather restricted. However, pure natural neroli oil can still be found. The prices of 100% pure Chinese neroli oil have jumped up considerably by around 15 to 20%.

NA

OSMANTHUS CONCRETE

Osmanthus fragrans *China*

Rising temperatures and aridity in the flowering regions have decreased the osmanthus crop considerably. Production also has not met expectations. The harvest season for fresh flowers is ongoing. Last year's stock of absolute and concentrate is almost depleted. This year's fresh osmanthus flowers will have to be stored over time for the fragrance to improve. Thus, the oil will be available only around March. The Chinese tea industry is on an upswing, and is making a beeline to procure fresh flowers to make the most of an opportunity to buy at lower prices. In the present situation, prices are at par with last year's rates. However, in view of the soaring demand from the tea and F&F industry, the possibility of a price hike for the new material is not ruled out. Clients with ready requirements should book orders at the earliest.

USD 1750.00 /kilo

ROMAN CHAMOMILE OIL

Matricaria chamomilla (L.) *China*

China's total production of Roman chamomile was significantly small this year. Demand from the domestic aromatherapy and cosmetic industry continues to rise. In addition, China fulfilled some international orders of note from clients seeking this oil at competitive pricing, which has depleted most of the available stock. The much-awaited new crop of the next season has rallied prices. Hopes are riding high on further climbing of prices.

NA

STAR ANISE OIL

Illicium verum *China*

The weather in spring was not at all conducive to the growth of the star anise. The crop was seriously affected and so was the harvest. This year, the price of the anise fruit peaked to reach its highest in the spice market with minimal quantity earmarked for distilling into oil. Traditionally, the autumn crop brings in new volumes of oil, but this year the autumn harvest was scooped up by the spice market. Star anise leaf yields much less oil so there is no incentive for farmers to cut leaves and twigs in order to distill the oil. For some time now, there is a paucity of supply of star anise, available oil and natural anethol reserves are very few. As a result, prices have been on an ascent from the beginning of the year.

USD 24.00 /kilo

TEA TREE OIL

Melaleuca alternifolia *China*

This year Australian tea tree plantations have been ravaged by inclement weather. The prices have been constantly increasing. Correspondingly global demand for tea tree oil too has been on the upswing. Chinese tea tree oil has filled the void left by the shortage of its Australian counterpart. The prices of Chinese tea tree oil are stable, however there can be quality issues as compared with Australian origin.

USD 29.00 /kilo

VALERIAN ROOT OIL

Valeriana wallichii *China*

For some time now this oil has not fetched good returns, and this has caused several farmers to abstain from cultivating it. The crop production was much lower than last year. In terms of demand, global demand fell but demand in the domestic medicine segment rose remarkably. This eased out the equation and now supply is able to match the demand. Market prices are stable, and superior grade valerian root oil is available.

USD 465.00 /kilo

WINTERGREEN OIL

Gaultheria procumbens *China*

This is a difficult plant to collect, and that has increased input costs. When prevailing selling prices did not meet expectations, several farmers started hoarding stocks in the hopes of a higher selling price. It has become difficult to zero in on reliable sources for the crude oil, especially in the light of adulterated and blended variants making their way into the markets. The demand for 100% natural wintergreen has fallen; but it is hoped that with the surge of the market, prices will move up. There are some limited stocks of oil available; and those who require should consider booking orders now.

USD 47.00 /kilo

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BASIL LINALOOL OIL

Ocimum basilicum *Egypt*

Basil linalool is also among the key products that have put Egypt on the world map of aromatic essential oils. Last year saw a huge spurt in demand and a consequent boom in the quantities of oil produced. However, it is the quality of the oil that plays a vital role in influencing the dynamics of the basil linalool market. The main area of production is Beni Suef. This season has opened well, albeit with a lower demand than last year. There were some issues with the quality last year. Though challenges persist, the quality has improved remarkably. Oil production has touched 25 MT this year. The true basil grand vert 50% linalool is scarce and remains rather expensive. However, large volumes of the mutated type with 42% to 45% linalool are easily available. Last year, the prices fetched by basil were not up to expectations. This is the nudging factor for the reduced basil plantings this year. The market is hopeful about the carryover, which is expected to prevent prices from soaring.

USD 83.00 /kilo

BLUE CHAMOMILE OIL

Matricaria chamomilla *Egypt*

Over the last few years, Egypt has matched blue chamomile oil from Hungary with lower chamazulene content and attractive prices. Most plantations are concentrated in and around the Fayoum region. Despite being a popular ingredient in dried herbs and spice and used extensively in essential oils production, demand has fallen considerably. In addition, the crop has been a loss-making venture with appalling performance in the last two consecutive seasons. Farmers have had to bear the brunt of severe losses almost 30% less than their cost prices. Needless to say, this year, distillers have produced very little oil; the entire country's production stands at 2.5 MT compared to last year. The number of new chamomile plantations in the new season will be nothing to write home about. The carryover stock from last year is expected to have a steadying effect on prices, which are predicted to maintain their current levels.

USD 620.00 /kilo

CUMIN OIL

Cuminum cyminum L. *Egypt*

Another vital ingredient in Egypt's essential oil portfolio, cumin production remains steady and stable. This year production is 20 MT of oil.

USD 115.00 /kilo

MARJORAM OIL

Origanum majorana *Egypt*

Marjoram plays a significant role in Egypt's aromatic raw material industry. Used mainly in the dried herbs and spices industry and essential oils production, marjoram plantations are located in Fayoum and Menia. This year's production of marjoram stands at 15 MT.

USD 81.00 /kilo

PETITGRAIN MANDARIN OIL

Citrus reticulata *Egypt*

Widely used in the flavours industry, Egypt holds the leading position in petitgrain mandarin production. The Egyptian mandarin variety is available in large quantities due to the plethora of trees. Oil extraction is largely dependent on demand predictions. The average production hovers around 40 MT, although larger quantities could be produced if the demand can be estimated 2 to 3 months before the season commences. In fact, the production swelled to 55 MT in 2019. Currently, petitgrain mandarin commands stable pricing.

NA

GERANIUM OIL

Pelargonium graveolens *Egypt*

The country's star performer in terms of essential oils, geranium is also Egypt's largest selling oil. The Beni Suef region accounts for most of the production and is the main growing area with one of the larger companies recording a turnover of 80 MT oil in 2019. Egyptian geranium has been steady in performance and has made quite a niche for itself. This year started on a very positive note with indications of a healthy crop estimated to touch 180 MT. With optimum weather conditions throughout the year and a robust crop, yields were good with 260 to 280 MT of essential oil. The month of May witnessed large quantities of geranium being produced, leading to a downslide in prices. October is the planting season. Work has commenced in full swing, and over the last few weeks demand has inched up. This has pushed up prices somewhat, albeit lower than what was hoped for. If prices are maintained at these new levels, it could influence the farmers to plant more geranium.

USD 84.00 /kilo

JASMINE CONCRETE & ABSOLUTE

Jasminum grandiflorum L. *Egypt*

Active plantation drives have contributed largely to the increased volumes of flowers produced over the last few years. Egyptian quality jasmine is much appreciated by perfume connoisseurs for its floral notes, and is a preferred ingredient among perfumers. Out of Egypt's current production of 6 to 7 MT of jasmine concrete, one of the leading names contributes the lion's share of almost 4 MT. Currently, the jasmine season has just concluded and production is pegged at 7 MT. Demand has already escalated; and there were apprehensions of a price rise. However, carryover stocks will help arrest any price hikes and keep prices at par with the previous year. On the flipside, the increased prices of both jasmine concrete and absolute have prompted some producers to accept inferior quality of flowers in order to keep production costs at a minimum and offer oil at lower prices. This could have a negative effect on the market.

NA

NEROLI OIL

Citrus aurantium *Egypt*

Over the years, neroli has grown to attain stability and garnered sustained attention for planting and marketing. With more weather stability, concerted efforts and better pricing strategy, Egypt has gained an edge over other neroli-producing nations. Egypt has been encouraging planting of trees for several years now. These are flowering early and as they grow so neroli production is also reasonably good. This year Egypt delivered around 1.7 MT out of which around 1.3 MT was contributed by one of the renowned players in the business. However, though the quantity of oil produced went up, the quality was somewhat compromised. Once brought to the notice of some renowned distillers, systems were put into place for better control over the quality of blossoms accepted for oil extraction. There was also an influx of some inferior quality carryover oil, which was suspected to be adulterated. This was being marketed at significantly lower prices; so here is a word of caution not be tempted by cheaper rates. In 2019, the market witnessed a rise in demand for neroli and estimated production of 2 MT of oil. However, weather played spoilsport and the resultant yield of oil from flowers was very low. Even with this low yield we still produced more oil than the previous year. The estimated production is around 1.6 MT. There is a boom expected in production in the upcoming 2020 season and the years ahead, while prices will be on the low side for the coming years.

USD 5875.00 /kilo

FUNCTIONAL FRAGRANCE: **SCENT DEVELOPMENT IN THE AGE OF HYPER-PERFORMANCE**

Eddie Bulliqi

Over the last year, industry headlines have proclaimed 'functional fragrance' as a key concept for the future of wellness and olfaction. But isn't it just the same as aromatherapy? This article deep dives into the context that has opened space for the functional fragrance concept to gain ground and thrive.

We can track a new wave of marketing efforts rooted in the flavour and fragrance industry that herald the arrival of a new, highly innovative cultural synthesis that will purportedly change the way we engage with our sense of smell: functional fragrance. Advocates would have us believe that functional fragrance represents the apex of the holistic look-good-do-good movement that makeup and haircare have been part of for years – headlining products that combine noteworthy aesthetic impact with health-enriching benefit, whether that be cell repair, moisturisation, anti-ageing, vitamin delivery, UV protection or anxiety reduction, stress relief, anger management, emotional detoxing. Crucially, these remedial claims have, to a greater and greater degree, become platformed by naturals – essential oils in particular. Keen industry eyes would see functional fragrance as an attempt to revive the principles of aromatherapy. This essay examines the social and industrial context that birthed the concept of functional fragrance, why it's carrying weight with consumers and what it could mean for the industry.

“Adina Grigore, founder of skincare brand S.W. Basics, commented that “the idea behind functional fragrance is that it’s actually doing something to help you” whilst journalist Mellanie Perez considers it “a buzzy term that describes scents that “biohack” our brains and bodies to perform better...”

WHAT IS IT?

The defining attribute of functional fragrance is that its role is not just to smell good, or just to perform a health-boosting task, but to do both at the same time, equally well, with equal weight put into the development of each of its operational poles so the consumer perceives the olfactive hedonic as part-sensorial indulgence and part-operational remedy. Early adopters have attempted to position functional fragrance offerings as data-backed neurological modifiers that fulfil multiple purposes (physical, emotional and cerebral) by affecting hormone response and cognitive patterning from olfactory stimuli, with clear aspirations towards the DIY preventative medicine market, burnt-out millennials wanting a quick fix for their stress as well as jaded healthcare consumers that think their doctors are keeping something from them. Adina Grigore, founder of skincare brand S.W. Basics, commented that "the idea behind functional fragrance is that it's actually doing something to help you" whilst journalist Mellanie Perez considers it "a buzzy term that describes scents that "biohack" our brains and bodies to perform better", adopting findings that indicate effectiveness specifically for "irritation, stress, depression, apathy, happiness, sensuality, relaxation and stimulation". [1]

Sound familiar? Perez gave a nod to the aromatherapy industry in her note that "what used to be simply a lavender essential oil to induce sleep a few years ago is now an anti-anxiety solution" whereas the 2019 Global Wellness Summit directly acknowledged its appropriation by suggesting that the marketing term "functional fragrance" represents "Aromatherapy 2.0", satisfying the needs of today's consumer base in new ways, "including 100 percent natural ingredients, transparency, sustainability and evidence-based results".[2] Market frontrunners include Aeroscena and its trademarked "phyto-inhalants", Osea and its "Vagus Nerve Oil" and The Nue Co, whose flagship functional fragrance induced a feeling of calm in 96% of test subjects.[3]

WHY IS IT HAPPENING NOW?

Functional fragrance subtly diverges from traditional aromatherapy in its cultural bracketing and historical routing. The frame that floats functional fragrance is an obsession with hyper-performance and personality optimisation through artificially intelligent diagnostics, thriving within today's hive headspace of anxiety epidemics and fear of missing out (FOMO) in the experience economy; in contrast, aromatherapy evokes post-war images of group meditation for some younger demographics and continually ebbed and flowed in and out of public consciousness from the 1970s to today with varying degrees of success. Functional fragrance presents new-to-market brands a chance to revive the values of aromatherapy under a new title and of-the-moment concerns.

Running with a parallel argument, Forbes contributor Deborah Weinswig thinks that "in an era in which so many catalogue their lives on social media, looking great, feeling good and sleeping well are the new luxuries that consumers want to enjoy and flaunt", continuing that "owning the most expensive or the latest goods has taken a back seat to looking good and feeling good, and consumers are showing an increasing preference for participating in activities and indulging in experiences that promote their well-being".[4] In corroboration, reporter Zoe Weiner notes that "in 2002, the hottest new perfumes were all about smelling like either cotton candy or your favourite pop star ... Fast forward 16 years ... we've started spritzing ourselves for a very, very different reason: to feel better".[5]

With a savvy consumer base that is demanding more efficacious and emotionally fulfilling solutions from every consumer product on the shelf, the winners will be those that understand the power of brand empathy in the digital age and offer ever-more bespoke ways for people to shape who they are, how they perform and how they feel by using non-invasive tools that have the ability to respond in real time to the changing physical and emotional needs of the user. The priorities of global tech innovation are largely the same, and aromatherapeutic programmes have the potential to achieve high impact in the high-tech frameworks of the near future, as suggested by biotech experimenter Zyto.

For several years now, wearable devices have gathered data about our heart rates, how many calories we burn, and even our galvanic skin response. This and other data [in the future] will be gathered to create "digital selfies" of individuals. Our digital doubles will be recognisable to machines and therefore will be able to be decoded for enhanced well-being ... smartphones will be able to use data to understand our behaviour patterns and recognize our emotions in real time. Technologies that determine these states and behaviours that could be attached to apps include facial recognition, voice recognition, and biometric sensors. In turn, apps will be capable of communicating our emotional state and making recommendations for improving our well-being in real time.[6]

With unease, Dazed Digital's Geraldine Wharry points out that "we hacked nature during the second industrial revolution without facing the long-term consequences on our planet. Today, we are onto our next challenge: hacking the brain and the human body ... Wellness is our era's catalyst", echoed by researcher Ophelia Yeung's remark that "as people incorporate more of the wellness values into their lifestyle, our interaction with the wellness economy is also becoming less episodic and more intentional, more integrative, and more holistic ... Everything is merging as companies capitalize on wellness, making it harder to separate markets into individual buckets".[7] The platform of functional fragrance could be poised to steal the wellness podium as a manifest form of mindfulness that could exploit the multiplicity of touchpoints at which finer curation of your emotions would be helpful – think the office (concentration), gym (energy) or dating (confidence).

"...In an era in which so many catalogue their lives on social media, looking great, feeling good and sleeping well are the new luxuries that consumers want to enjoy and flaunt...

HOW FAR CAN IT GO?

Despite predictions that the global aromatherapy market will reach 9.57 billion USD by 2026, some are concerned about the recent drop in pace of inner market activity.[8] Functional fragrance, and the F&F industry more widely, presents a huge opportunity for aromatherapy that has room to grow. The fragrance sector is much larger, expected to inflate to 91.17 billion USD by 2025; the wellness market overall, including all product and subcategories, is even larger than that and was valued in 2018 at 4.2 trillion USD, growing 12.8% from 2016 and representing 5.3% of global economic output.[9] Instead of worrying about potential oversaturation and inability to induct new aromatherapy users from extraneous markets, it may be smarter to strategise tactics for how to convert the sea of wellness advocates into recognising the benefits that aromatherapy has to offer to their current wellness regime.

If the aromatherapy world doesn't maintain pace with the rest of the innovation ecosystem in beauty, wellness, tech and beyond then there is a high risk that it will lose its edge in a marketplace that is providing ever more diverse and niche products and services through which consumers can tackle their emotional wellbeing. A reinvigorated effort to fine-tune phytochemical research and further validate the usefulness of essential oils for addressing the concerns of the contemporary user will ensure that naturals remain a cornerstone solution for mood modification. As more and more consumers look for superlative functionality in their fragrances, the role of natural essential oils and the values they represent will become increasingly important in a society obsessed with hyper-performance.

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CARDAMOM OIL

Elettaria cardamomum India

Cardamom supplies continue to be strained especially in the festive season. Crop production has also been much lower; and any excess supply of seeds was consumed by the surge in demand during the holy month of Ramadan. As a result, cardamom oil too is available in limited quantities.

USD 550.00 /kilo

LEMONGRASS OIL

Cymbopogon citratus India

Prices of lemongrass oil have plunged due to a robust crop; and the easy availability of synthetic citral. The market for conventional lemongrass oil is rather subdued.

USD 19.00 /kilo

PALMAROSA OIL

Cymbopogon martini India

The supply of organic palmarosa oil is adequate to satisfy existing demand. Consequently, there are no price fluctuations and the market remains more or less steady. The market for conventional palmarosa is rather low.

USD 37.00 /kilo

MENTHA ARVENSIS OIL

Mentha Arvensis India

The export data analysis for the first quarter of this financial year shows high volumes of menthol, an impressive 7,000 MT of menthol exported from India. Considering this, the market estimates a pro-rated figure of 21,000 MT in a year. India generally clocks around 17,000 MT menthol exports on average, so there are implications of a slump in demand. There is also an influx of synthetic menthol from some well-known Malaysian and American players. Some more material from a second cut production from Madhya Pradesh and the East Uttar Pradesh area has hit the market in November. This will definitely go a long way in easing the supplies. Though the market was quite stable in terms of mentha oil prices, slack demand has led to declining prices of menthol powder and menthol crystals.

The government's income tax exemption on cash transactions has come as a welcome relief, leading to a buoyant market and confidence running high. With the current scenario, it is hoped that menthol prices will soften over the coming three months. DMO prices are gaining momentum and will support the weakening menthol market. Though there is no reason for a drastic upheaval at the moment, it is expected that 2020 will witness considerable turmoil. The industry is predicting a healthy crop size and a sizeable carryover stock. Clients are advised to book their requirements.

USD 23.00 /kilo

MENTHA PIPERITA OIL

Mentha piperita India

100% unadulterated Indian peppermint commands a high price. This is equivalent or close to what American farmers charge for their produce. Consequently, there is a perceivable decline in demand for *Mentha piperita*; and the market has not witnessed much change. The somewhat soft demand is not enough to influence upward price movement; and neither any downward pressure.

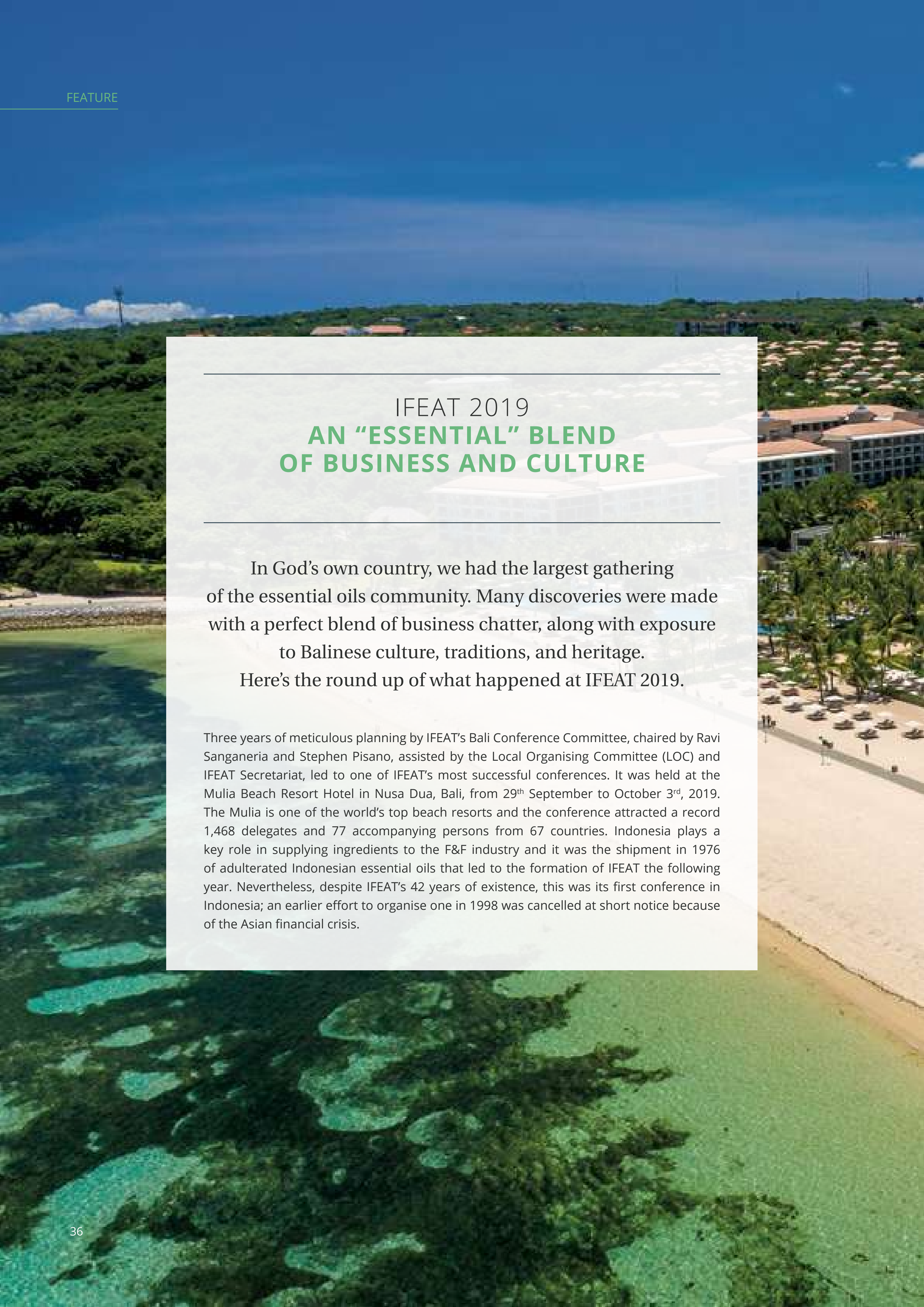
USD 33.00 /kilo

SPEARMINT OIL

Mentha spicata India

The Indian spearmint crop is slightly lower than last season. A fall in demand has led to a lowering of prices somewhat. Additionally, a corresponding reduction in prices of d-limonene has cut down the price for synthetic L-carvone even. However, the decline in the spearmint crop is not by a significant margin; and is not expected to have a drastic effect on prices.

USD 32.00 /kilo



IFEAT 2019
AN "ESSENTIAL" BLEND OF BUSINESS AND CULTURE

In God's own country, we had the largest gathering of the essential oils community. Many discoveries were made with a perfect blend of business chatter, along with exposure to Balinese culture, traditions, and heritage.
Here's the round up of what happened at IFEAT 2019.

Three years of meticulous planning by IFEAT's Bali Conference Committee, chaired by Ravi Sanganeria and Stephen Pisano, assisted by the Local Organising Committee (LOC) and IFEAT Secretariat, led to one of IFEAT's most successful conferences. It was held at the Mulia Beach Resort Hotel in Nusa Dua, Bali, from 29th September to October 3rd, 2019. The Mulia is one of the world's top beach resorts and the conference attracted a record 1,468 delegates and 77 accompanying persons from 67 countries. Indonesia plays a key role in supplying ingredients to the F&F industry and it was the shipment in 1976 of adulterated Indonesian essential oils that led to the formation of IFEAT the following year. Nevertheless, despite IFEAT's 42 years of existence, this was its first conference in Indonesia; an earlier effort to organise one in 1998 was cancelled at short notice because of the Asian financial crisis.

Photo: IFEAT Bali - Local Organising Committee

Photos centre and bottom: Seeking blessings at the Mulia Temple before the Welcome Reception

Photos adjacent page: Naturals in Indonesia - Vital raw materials facing many challenges (Opening Presentation by Ravi Sanganeria)

The Mulia Resort's extensive facilities were outstanding in catering for IFEAT's ever-expanding activities. The large lecture hall was an excellent location for the four mornings of lectures, the IFEAT AGM and Business Session, the afternoon legislative, regulatory and scientific sessions, as well as two round tables on citrus and patchouli. The Grand Ballroom hosted 30 companies exhibiting over the four days. There were ample meeting places for networking, such a vital component of IFEAT conferences. There were 26 suites in which individual companies could host meetings with existing and potential customers and suppliers as well as two seminar rooms for the flavour and fragrance workshops. The several restaurants and range of cuisines available - Chinese, Indian, Indonesian, Japanese and Western - were equally impressive. The Mulia Resort even had a small and beautiful Balinese Hindu Temple near the beach, to host the Executive Committee's conference blessing ceremony. This took place just prior to the Welcome Reception on Sunday evening at the beachside Unity Gardens. Certainly, the gods were on our side throughout the Conference week! On Monday the Mulia's large ZJs nightclub proved an excellent venue for Van Aroma's party. Finally, there was a large number of capable, efficient and welcoming Mulia staff, who were always on hand with constant smiles to assist.

The creation of beauty seems to form part of everyday life in Bali. The Balinese are very artistic people, and this was particularly apparent in the entertainment that was provided at the Welcome Reception, the IFEAT Dinner and the Closing Dinner. On each occasion, several leading Balinese groups, and occasionally international groups, performed a wide range of music and songs blending Indonesian and western music, as well as superb traditional and modern dance routines. The colourful and supremely graceful dance routines were a joy to watch and often told epic stories. At the Welcome Reception, one dance was about the beautiful colours and shapes of the frangipani flower. Another classical Balinese dance was accompanied by a gamelan orchestra, with traditional Indonesian instruments. On occasion, the gamelan playing had a hypnotic and haunting effect – a wonderful start to the Conference for the almost 1,000 participating in the Welcome Reception. The **IFEAT Annual Dinner** held outside on Tuesday evening at the lovely Taman Bhagawan saw another fascinating display of Balinese and other Indonesian music and dance. This included the playing of the rindik, a traditional Balinese bamboo musical instrument, as well as Balawan, one of the fastest playing guitarists in Indonesia, playing his eight-string double neck guitar. Perhaps the most amazing event involved a stunning variety of fire dancing activities involving juggling, baton twirling, fire eating and body burning. At the **Closing Dinner** on Thursday evening there were a further six leading dancing and musical acts entertaining the delegates throughout the evening.

The **Conference programme** was opened on Monday morning by the joint chairs Ravi Sanganeria and Stephen Pisano. They explained that the theme was **Naturals in Asia,** and that the conference was different and more extensive than in previous years. During the four morning speaker sessions there were 13 presentations, focusing on the essential oils and F&F markets in Asia. Holding lectures during the two-hour morning sessions was popular and attendance figures improved. In the afternoons there was a regulatory/legislative session, a scientific forum, in which new technical developments were presented and discussed; and two round table discussions on citrus and patchouli. In addition, there was an extensive trade exhibition each day, the usual networking areas and two fragrance and flavour workshops.

The opening presentation was given by **Ravi Sanganeria** who set the scene for the Conference. His wide-ranging lecture on ***Naturals in Indonesia – vital raw materials facing many challenges*** reviewed key trends in Indonesia essential oil production and trade. The accompanying table illustrates estimated annual production of some major oils. He also analysed some of the micro and macro challenges facing the sector, dominated by smallholders, many of whom face severe sustainability issues. These include competition from alternative crops affecting land and labour availability, insufficient financial incentives, absence of suitable market systems and institutions; all encouraging a lack of long-term commitment. Macro challenges include climatic variations and environmental challenges (e.g. global warming, tsunamis, active volcanoes, soil erosion); political and economic issues (e.g. currency fluctuations, corruption); an expanding domestic F&F industry consuming an increasing share of production; alongside geographic, demographic and infrastructural challenges. A key component of the presentation was a review of the sustainability initiatives being undertaken by several F&F companies working in Indonesia, alongside recommendations on how greater sustainability can be achieved. Despite many challenges faced by the naturals sector, the presentation ended on a positive note arguing that with encouragement and investment Indonesia will continue not only to supply competitive, good quality, sustainable natural essential oils to the world market but will also provide an expanding source of new value added innovative F&F ingredients.

Photo: Group photo to honour all the Indonesian Delegates at IFEAT Bali

ESSENTIAL OIL PRODUCTION (MT) - INDONESIA

Essential Oils		Output 2014	Output 2015	Output 2016	Output 2017	Output 2018
Turpentine Oil	Minyak Turpentin	-	-	13,000-14,000	12,500-13,500	14000-14500
Clove (leaf/stem/bud) Oil	Minyak Cengkeh (daun/batang/bunga)	3,500-4,000	4,200-4,700	3,200-3,500	2,500-3,000	4000-4500
Patchouli Oil	Minyak Nilam	800-1,000	1,400-1,600	1,500-1,700	1,200-1,400	1000-1200
Citronella Oil	Minyak Sereh Wangi	500-600	600-700	600-700	700-800	1000-1200
Cajuput Oil	Minyak Kayu Putih	350-400	350-450	350-450	350-450	500-600
Nutmeg Oil	Minyak Pala	350-400	300-350	300-350	300-350	300-350
Gurjun Balsam Oil	Minyak Keruing	8-10	8-10	40-50	40-50	30-40
Massoia Bark Oil	Minyak Massoi	12-15	15-20	20-25	15-20	20-25
Vetiver Oil	Minyak Akarwangi	20-25	10-15	8-10	5-8	30-35
Cananga Oil	Minyak Kenanga	12-15	8-10	6-8	3-5	4-6
Ginger Oil	Minyak Jahe	5-7	7-10	6-8	6-8	4-5
Alpinia malacencis Oil	Minyak Lajagoa	-	-	2-5	2-4	3-5
Kaffir Lime Leaf Oil	Minyak Daun Jeruk Purut	2-3	2-3	2-3	<1	2-3
Agarwood Oil*	Minyak Gaharu	2-3	2-3	2-3	2-3	<1
Cubeb Oil	Minyak kemukus	1-2	<1	1-2	<1	2-3
Cinnamomum culilawan Oil	Minyak Lawang	-	-	<2	<1	<1
Cinnamon Bark Oil	Minyak Kayu Manis	<1	<1	<1	<1	<0.5
Sandalwood Oil	Minyak Cendana	<1	<0.7	<0.5	<0.5	2-3
Lemongrass Oil	Minyak Sereh Dapur	-	-	<0.5	<0.5	2-3
Black pepper Oil	Minyak Lada Hitam	-	-	<0.5	<0.5	<0.5
Fennel Oil	Minyak Adas	-	-	<0.5	<0.5	<0.5
Piper betle Oil	Minyakdaun sirih	-	-	<0.5	<0.5	<0.2

** Gaharu terdiri dari 46 spesies, yaitu 12 Aquilaria sp., 13 Gyrinops sp., dan lainnya di luar kontrol CITES*

The morning session saw two further presentations on Indonesia. Olivier Bernard spoke on vanilla, one of the world's most important flavouring and complex ingredients. Indonesia is the world's second largest producer of natural vanilla. The presentation was illustrated with two very informative videos. Afterwards Natalia Pandjaita, discussed in detail the range of components of Indonesian citronella. All the conference speakers' presentations will be available to members on the IFEAT website.

Photo: *Petrus Arifin after giving the 2019 IFEAT Medal Lecture*

On Tuesday there were two further presentations. Petrus Arifin, who has been involved in Indonesian essential oil trading for almost four decades, gave the **2019 IFEAT Medal Lecture** on: *Scents of patchouli: a journey in time.* He discussed geographical and political factors and provided personal perspectives and anecdotes on the ups and downs of Indonesian patchouli oil production during his lifetime. This included the continual eastward shift of growing regions from Sumatra to Java to Sulawesi. Indonesia dominates global patchouli oil production and was the theme of Wednesday's round table discussion (see below).

The final morning lecture was an entertaining and informative presentation by Frank Mara: *A personal view of essential oils: inception, distribution & validation*. This was a historical tour of the discovery and practice of using essential oils in personal care, well-being and flavours from their early use through to the present day, specifically focusing on the three distinct pillars cited in the title.

Wednesday morning lectures were on diverse aspects of Asian essential oils. Nikky Tran's *Vietnam essential oil industry with respect to sustainable reforestation and exploitation* discussed two major Vietnamese oils (cassia and basil) and six minor oils. A resident of Japan, Geoffrey Henrotte spoke on *Authentic essential oils from Japan in the global market* concentrating mainly on hinoki oil. Prabodh Satyal presented on *Bioactivities and chemical composition of Himalayan medicinal and aromatic plants from Nepal* discussing the characteristics of ten Nepalese aromatic plants. The final morning lecture was by Zieger Lin Zhigang who traced key developments in China's aroma chemicals sector over the past two decades - *The status and outlook of China's aroma chemicals.*

On the final day there were four presentations on Australian essential oils, two on sandalwood:
- *Emerging and novel clinical aromatherapy and biological potential of thirteen Australasian essential oils* by Dorene Petersen.
- *The Australian essential oil industry: history and emerging trends* by Ashley Dowell.
- *Australia's plantation Santalum album: forging a new future for an ancient aromatic* by Andrew Brown.
- *The union of traditional Indigenous custodians with new age plantation methods: from Australia's Gibson Desert to the world* by Ron Mulder.

A key feature of every IFEAT Conference is the **IFEAT AGM and Business Session**, which took place on the Tuesday morning. The format was similar to previous years: the 2018 Report and Accounts were approved; the retiring Executive Committee (EC) chair Antonella Corleone reviewed the previous year's activities; new EC members were elected, and Hussein Fakhry was announced as the new EC chair. Presentations were made on the next IFEAT Conference to take place at the Inter-Continental Hotel in Berlin, Germany from 11th – 15th October 2020 with the theme of *Trade, Tradition and Modern Spirit;* and the IFEAT Study Tour in India from 12th - 21st June 2020. IFEAT's President, Alastair Hitchen, also made a short presentation on the development and growth of IFEAT over the past four decades. During the session, there were reports on the ICATS and Reading perfumery and flavour courses supported by IFEAT, and the presentation of IFEAT Best Student Medals to Harlem Sobrino Paredes (ICATS) and Lucy Turner (Reading).

A Bali Conference first was the **Trade Exhibition,** for the first time taking place over four days. Some 30 companies from a range of countries participated, including two from the Ultra Group – Golden Grove Naturals (GGN) from Australia and Van Aroma from Indonesia. Everyone was very impressed with the design and interactive content of these booths. In particular, the Van Aroma and GGN booths each contained eighteen hand blown glass sniffing ports facilitating the smelling of the wide range of Van Aroma and GGN produced naturals. In all, there were 26 oils each from Van Aroma and GGN, making a total of 52 oils that could be experienced by over 1,000 delegates who passed through the booths. In addition, delegates could taste some interesting beverage flavours made from various Indonesian spice and coffee botanicals as well as see some interesting product applications, including cocoa butter CO_2 for lip balm and citrefort for making mosquito repellent. Certainly, the trade exhibition proved to be an excellent opportunity for companies to meet both current business contacts and customers and make new ones.

Photo top: IFEAT Delegates of Ultra, Van Aroma and Golden Grove Naturals

Photos bottom: The interactive booths of Van Aroma and Golden Grove Naturals

On Monday evening Van Aroma hosted a superb party at ZJ's night club bar and lounge in the Mulia Resort. Some 250 guests attended and enjoyed some excellent food, music and dancing. Sandeep Tekriwal, Van Aroma's CEO and a key member of the LOC, gave a short company history from its foundation in 2006 and introduced founding members and their families. During the Conference, the Ultra Group also celebrated its 90th anniversary. The Ultra Autumn 2019 Market Report, prepared to coincide with the Bali Conference, contained a detailed Group history from 1929.

Photos: Happy moments at the Van Aroma party at ZJ's nightclub

The afternoons saw several sessions. The first was on **Regulatory & Legislative Developments** made up of six presentations by leading industry figures including three industry associations' heads. Jens-Achim Protzen of IFEAT gave an introductory lecture on *The regulatory impact on an essential oil on its way through the supply and value chain*. This traced the numerous regulations that essential oils face as they move from production to their incorporation into final products. Stephanie Paquin-Jaloux, an expert on compliance and biodiversity based in Indonesia, spoke on *The Nagoya Protocol and ABS (Access and Benefit Sharing) regulations relevance for the F&F industry.* She was followed by Jim Romine on *How RIFM will conduct the safety assessment of naturals (NCS).* Sven V. Ballschmiede of IOFI spoke on the *Increasing regulatory complexity and its trade implications* with some discussion of the imposition of unilateral Chinese and US tariffs. *The butterfly effect* by Eric Angelini, discussed the impact of various EU and other regulations. Finally, Martina Bianchini discussed the findings of a recent study on *The value of fragrance – a socio-economic contribution study for the global fragrance industry.* A panel discussion and Q/A session followed.

Two **Round Table** discussions were held on Wednesday afternoon. The Citrus Round Table theme was *Oversupply to shortages - an endless cycle?* which saw some 55 delegates discussing a wide-range of key issues affecting the sector. The Patchouli Round Table titled: *A rough history, a lot of progress: are we on the safe side for good?* saw 30 people from 11 countries discuss issues surrounding patchouli production, processing and sustainability. The session was moderated by Dominique Roques and Ravi Sanganeria.

A second successful **Scientific Forum** was held on the Thursday afternoon. Six speakers covering a diverse range of topics, and a large audience, shared their ideas about traditional and modern technologies that support the essential oil industry. The topics were:
David Hackleman: *Theory and practice of solvent free microwave essential oil extraction*
Andrea Frances: *Analysis of the hydrodiffusion process compared to traditional steam distillation including a comparative analysis of essential oils obtained through both processes*
Casey Lyon: *Understanding Boswellia & Commiphora, from source to essentials*
Lakshmy Kaliyarmattom Ravindran: *Essential oils: shelf life enhancement and prevention of oxidation*
Hubert Marceau: *The Explorer: a small scale still for every occasion*
Rick Boucard: *Distillers United: an online forum for essential oil producers*

The regular and popular **Flavour and Fragrance Workshops** continued this year led by John Wright and Marianne Martin respectively. Instead of the usual one-day session, each had two half days.

The final Conference event was the **Closing Banquet,** held on a cliff location with magnificent gardens and stunning views of the sunset over the bay. Alongside the superb entertainment, delegates saw the presentation of the IFEAT Founder's Award to Ramesh Vaze from India. The Conference Chairs, Ravi Sanganeria and Stephen Pisano, besides thanking the many Conference sponsors, invited on stage all those who helped to make the conference such a success; these included the Bali Conference Committee and LOC as well as the IFEAT Secretariat. Each year sees IFEAT Conferences move between continents with new companies and countries participating, a clear indication that IFEAT is going from strength to strength. Hope to see you in Berlin!

Photo: Vote of Thanks by Ravi Sanganeria and Stephen Pisano at the closing banquet

CITRONELLA OIL

Cymbopogon winterianus *Indonesia*

Indonesia has increased planting areas with several new cultivations in the Kalimantan region. Naturally, this will boost the volumes of domestic essential oil production. Over the last few months, prices have plummeted to touch rock-bottom across Sumatra as well as Java. Stakeholders hope these rates will hold; there seems to be no chance of a further drop. If prices were to fall further, citronella would cross the economic break-even point, and would no longer be a viable business option.

USD 16.00 /kilo

CLOVE OIL

Eugenia caryophyllata *Indonesia*

Clove is extremely sensitive to the vagaries of weather. That is why climatic conditions during the growing period are major influencers in dictating the market trends for clove oil prices. This year most of the harvest for clove buds has come in. Though some regions of Sulawesi are continuing their bud harvest, in many areas the farmers have closed the bud harvest and are focusing on stem and leaf distillation. Prices are bottomed out for all clove oils, eugenol, and eugenol derivatives. Clove stems and leaves have been in steady supply and this has enabled prices to bottom out. The situation is expected to continue over another couple of months before holding up again.

USD 12.00 - 18.00 /kilo

MASSOIA BARK OIL

Cryptocaria massoia *Indonesia*

The massoia market is facing a severe crunch in terms of raw material availability. Over-harvesting in some areas and political turmoil in the West Papua region has led to challenges in raw material procurement. Consequently, there is a drastic drop in the supply of massoia bark. Van Aroma is actively involved and leads the industry's collective endeavours in exploring sustainable options to establish a fully traceable supply chain for this product. However, this oil has been at the centre of controversy and this has affected output volumes. Initial market reports indicate an imminent acute scarcity of massoia bark oil and therefore the lactones. Most essential oil prices have fallen to their nadir, except for a few ingredients. The shortage of these is constantly pushing up the prices.

USD 272.00 - 734.00 /kilo

VANILLA

Vanilla planifolia *Indonesia*

Indonesia's natural vanilla production continues to expand as the market moves from a seller's market to a buyer's market. Assuming no climatic disasters, production in 2020 is estimated to be at least 200 MT, mainly of lower grade extraction quality product. However, the situation is complicated by imports of better quality, partially cured vanilla from neighbouring Papua New Guinea, which is then further processed and re-exported. Despite Indonesia's rising output, it is likely to be replaced by PNG as the world's second largest vanilla producer, where production is forecast to rise to 250 MT. Meanwhile, Madagascar continues to dominate global production with 2019 production estimated to range between 1,100 – 1,200 MT. In some origins, including Indonesia, prices over the past year have fallen by 40% - 50% from the record highs of USD 600/kg. Indonesian exporters are continuing to aggressively discount prices in order to maintain sales. Nevertheless, a collapse in vanilla prices to levels below USD 40/kg, seen between 2004 and 2011, is not anticipated. However, because of the anticipated further decline in prices many major buyers are thought not yet to have covered their 2020 requirements.

NA

NUTMEG OIL

Myristica fragrans Houtt. *Indonesia*

One of the biggest hurdles of nutmeg oil extraction is the purity of the raw material. Of late there have been increased percentages of methyl eugenol and safrole compared to earlier years. Van Aroma is among the few who offer low methyl eugenol, and safrole free variant of nutmeg oil. Prices for the oil remain comparatively stable at source.

USD 65.00 /kilo

PATCHOULI OIL

Pogostemon cablin *Indonesia*

Indonesia has not witnessed any new patchouli plantations of late, thus the total production volume has diminished. Now most of the patchouli fields are located in the region spanning from central Sulawesi to the south-east part. The weather is swinging from one extreme to another – the heavy rains have given way to extreme aridity with drought-like conditions. There is still some time for the next harvest which is about 4 to 5 months away. The market is anticipating a shortfall in supply in the coming weeks. Prices are on an ascent but are expected to firm up over the next few months.

USD 51.00 - 61.00 /kilo

VETIVER OIL

Vetiveria zizanioides *Indonesia*

Rainfall in most of the vetiver growing regions is imminent. This will definitely be a boon for the plants and eventually better quality of yield. In fact, with gradual improvement in quality, the Indonesian essential oil is now at par with the Haiti variant. The conversion into oil is rather time-consuming; but with the recent efforts of distillers there is a marked improvement in the odour profile. Indonesian vetiver is now being recognised and is the preferred oil of many end users. Price predictions anticipate firmer rates in the coming months.

USD 179.00 - 294.00 /kilo

BERGAMOT OIL

Citrus bergamia Italy

The outlook for bergamot is discouraging; and the crop considerably smaller than last year. The advent of summer also brought bad weather, which resulted in damage to almost 40% of the flowers in the area of Reggio Calabria. Furthermore, considering the fresh fruit market which absorbs 10 to 20% of the total crop, consumption is still not over. For oil extraction, the green fruit is conventionally processed, followed by the yellow bergamots end-November onwards. This year, around 10,000 to 13,000 MT of fruit is expected to be processed. In view of the high demand for essential oil, especially the organic variety, prices are predicted to remain high.

Euro 220.00 /kilo

LEMON OIL

Citrus limon L. Burm. F. Italy

Italy's total lemon production is estimated to be around 380,000 to 400,000 MT, lower than last season's crop. The fall in crop size is due to severe aridity which led to major spoilage of the flowers. As always, the amount of crop available for processing will be determined in part by the volume of fruit sold to the fresh fruit market, which is growing and dominates lemon use. Other factors influencing the quantity of lemons processed include the buying price offered to the cooperative growers by the processors, along with the currently depressed prices of lemon oil and other lemon products in other producing countries, especially Argentina and Spain. In addition, carryover supplies of juice as well as oil are likely to delay processing. Currently, it is estimated that approximately 120,000 MT of fruit will be processed, with a probable 120,000 MT – 140,000 MT likely to be available for processing.

Last season, Italy earned the distinction of commanding the highest price in the world for lemons for processing averaging €280/MT. Not only was this the highest, but it was thrice the average price of Spanish lemons which fetched between €80-€100/MT. However, Italy does have the advantage of being able to process lemons for 9 to 10 months of the year.

Fortunately for Italy, Sicily holds the dominant position for organic lemons. This relatively small sector is rather resilient in terms of recessionary impact although less is likely to be processed due to some carryover. Overall yields of juice and oil are anticipated to be normal and with the smaller crop, quality will be excellent. Prices are expected to be more or less stable. Globally lemon product prices are depressed and are predicted to remain relatively stable at these levels.

Euro 26.00 /kilo

MANDARIN OIL

Citrus reticulata Italy

The season for mandarin in Italy has begun; and the first of the lot will be the green mandarins which will be processed. The other mellower and ripened mandarins will be processed a bit later, around January onwards. Italy is witnessing its second consecutive poor mandarin crop. This is because there is a marked apathy towards renewing the old plantations by way of new investments. Less green mandarin means less ripe mandarin and, as a consequence, the result could be a reduction of availability of red mandarin for the industry. In addition, if the fresh fruit market is booming, then it poses another challenge since it implies less fruit for the processing industry. The total crop is estimated to be around 22,000 to 25,000 MT. Total production is expected to touch 25,000 MT, a 20 to 30% reduction from last year's production figures. Usually 10,000 to 15,000 MT are earmarked for processing into oil. There is anticipation of a price hike due to the smaller crop, as well as poor carryover for both juice and oil.

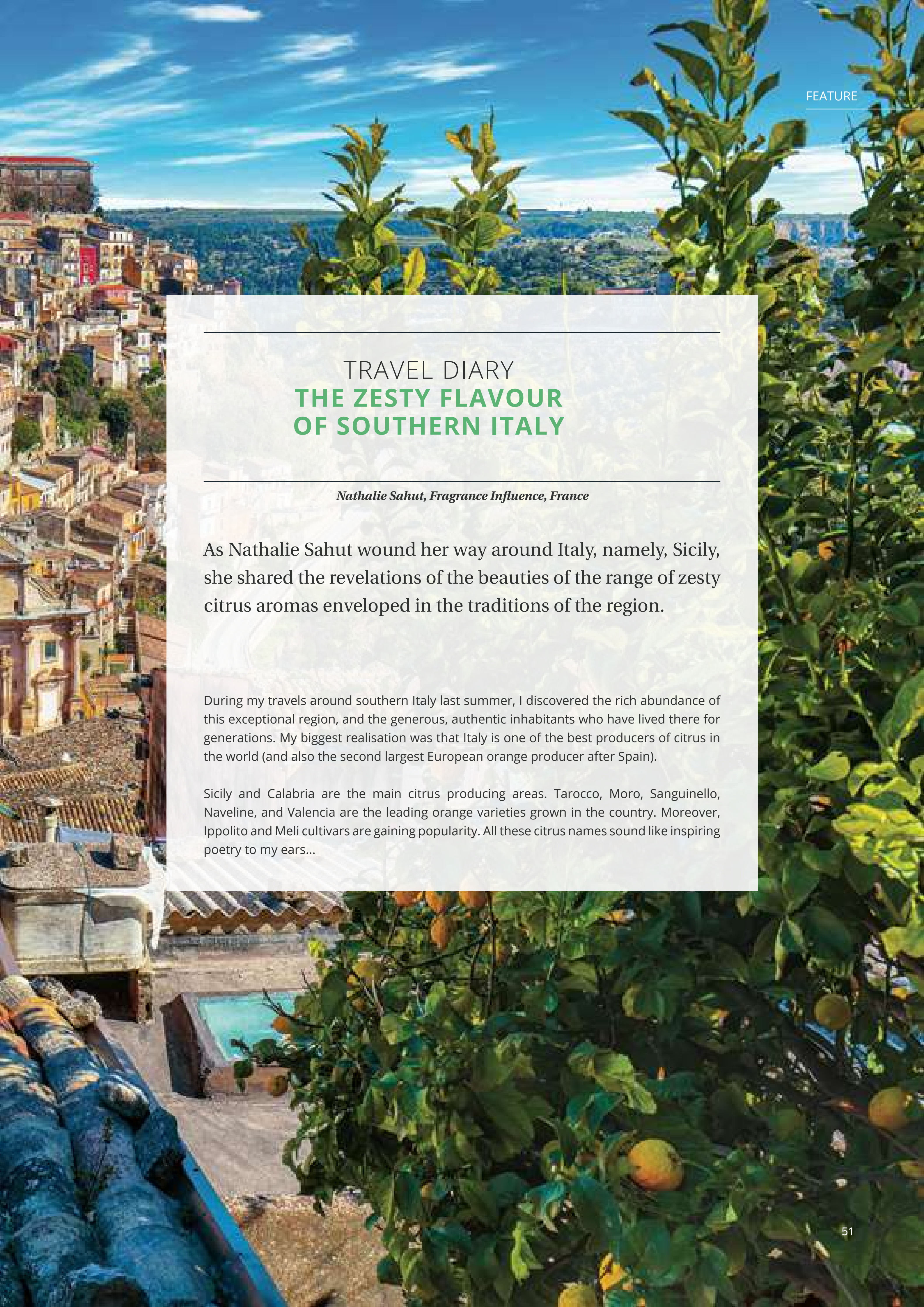
Euro 77.00 /kilo (Red) 82.00 /kilo (Yellow) 83.00 /kilo (Green)

ORANGE BLOOD OIL

Citrus sinensis Italy

An exceptionally dry summer followed by unprecedented rainfall in the last few weeks has affected the entire citrus crop this year. Blood oranges in particular, are an extremely sensitive and delicate cultivar and easily affected by weather fluctuations. As a result, the total orange crop is pegged at 650,000 MT, and a reduced figure of 350,000 MT for blood oranges, and 300,000 MT for blond oranges. Initially the forecasts were encouraging for the first crop. The atypical weather that followed impacted the trees causing irreparable loss of blossoms during the summer. Consequently, for the third consecutive crop, the total volume of oranges produced is equivalent to the previous crop and almost 20 to 30% less than normal. In addition, the fresh fruit market consumption – an eternal tug-of-war between the fresh market and processors – will finally affect the ultimate crop size. Industry pundits predict around 100,000 MT of blond oranges and 160,000 MT of blood oranges will make their way to being processed. Once again, the prices of orange will soar and the 'battle' for procuring raw material has begun. The distinctive NFC blood orange that Sicily is famed for and leads world production with an 80% share, has been insulated from these developments. Robust production is balanced out by hearty demand. In the eventuality that production is affected or decreased, the price is sure to shoot up. Less value for orange essential oil implies a less than optimum recovery; and will have a ripple effect on the prices of NFC and concentrated blood orange juice

Euro 8.00 /kilo



TRAVEL DIARY

THE ZESTY FLAVOUR OF SOUTHERN ITALY

Nathalie Sahut, Fragrance Influence, France

As Nathalie Sahut wound her way around Italy, namely, Sicily, she shared the revelations of the beauties of the range of zesty citrus aromas enveloped in the traditions of the region.

During my travels around southern Italy last summer, I discovered the rich abundance of this exceptional region, and the generous, authentic inhabitants who have lived there for generations. My biggest realisation was that Italy is one of the best producers of citrus in the world (and also the second largest European orange producer after Spain).

Sicily and Calabria are the main citrus producing areas. Tarocco, Moro, Sanguinello, Naveline, and Valencia are the leading orange varieties grown in the country. Moreover, Ippolito and Meli cultivars are gaining popularity. All these citrus names sound like inspiring poetry to my ears...

My journey began on the largest Mediterranean island located off the toe of the boot of Italy: amazing Sicily!

On my first day, I was curious to see people sitting in a café eating granita and brioche for breakfast. I learnt that the traditional way to combat the island's scorching summer heat is a hearty breakfast of ice-cold lemon granita and a warm brioche straight from the oven. The cold and hot combination gives your senses a kick start. I was keen to try it out. The next morning I sat in a small café on the village's main square to sample this famous semi-frozen treat often called "Granita Siciliana" because, as you've probably guessed, it's a Sicilian speciality. Its irresistible fizzy cold taste appeals to young and old alike, especially when it's made with intensely flavoured sun-ripened Sicilian lemons. The characteristic scent of Sicilian lemon is both fizzy and sweet. Surrounded by the busy clamour of local inhabitants sharing a picturesque early-morning moment, this traditional breakfast is an unforgettable experience!

Nine out of ten lemons produced in Italy actually come from Sicily. These sparkling fruits with a sunny-yellow peel are handpicked, as they mature through the year. The climate means a long growing season and the gathering of lemons takes place over three distinct periods. First is the autumn harvest or "primo fiore," followed by the cultivation of the "bianchetti" in spring, and the "verdelli" between the summer months of June and July.

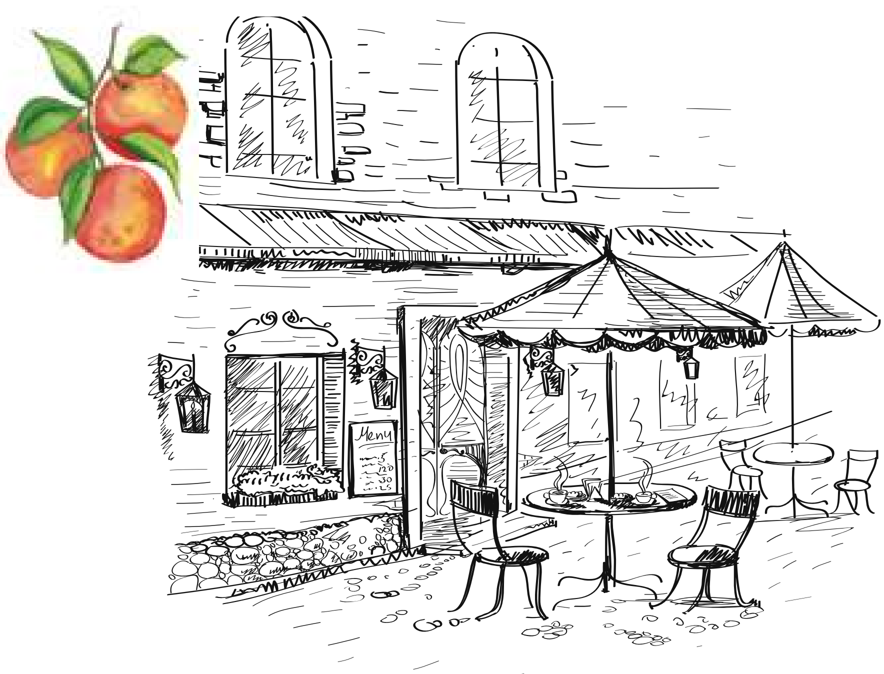
Lemon essential oil is one of the most easily recognised oils because of its refreshing, energising, and uplifting scent. It is also very much appreciated in aromatherapy thanks to its health benefits. It can be attributed to its stimulating, calming, astringent, detoxifying, antiseptic, and disinfectant properties.

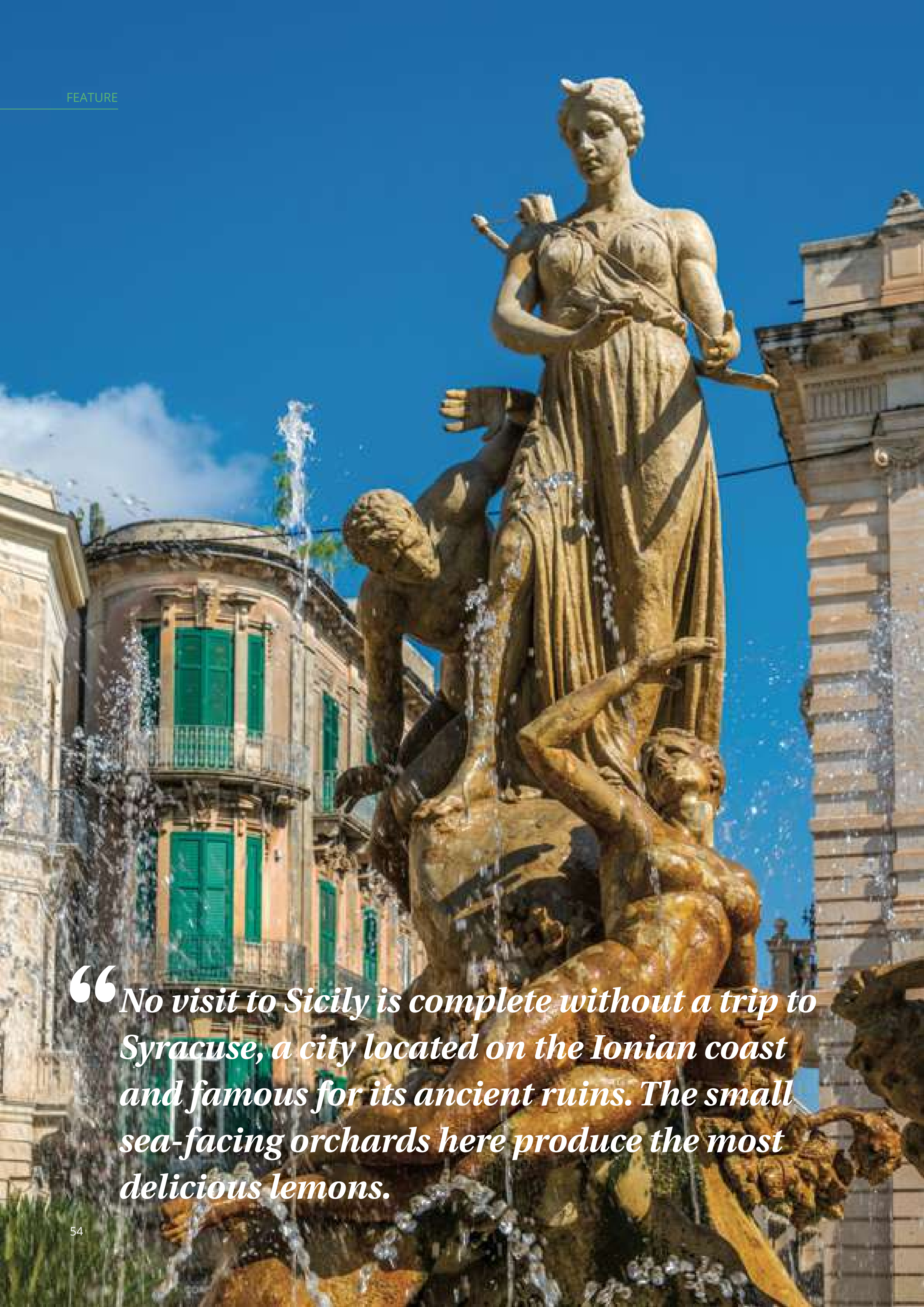
Over the next few days, I discovered Palagonia at the foot of Mount Etna, near the pretty harbour town of Catania, located on the island's east coast. Citrus fruits like Tarocco and Moro oranges and Ciaculli mandarins have been cultivated for centuries on these plains. Along with their remarkable flavour, the skins of these fruits bear small, dark marks caused by the cinders spewing from the still-active volcano. The marks cause no risk to the fruit, but are the signature of this exceptional terroir.

In the area, the sweet citrus fruits are harvested before the fruit is fully ripe. All citrus peels are covered with small pockets secreting essential oil, emitting a pleasant, zesty scent when the fruits are peeled. Even the slightest pressure releases a pleasant, fruity, lemony fragrance. The same principle is applied to extract the essential oil: the pericarp is cold-pressed.

Used in aromatherapy applications, orange essential oil is known to have a pleasant scent that has a cheerful and uplifting, yet simultaneously relaxing, and calming effect, as it helps reduce the pulse rate. For this reason, it is believed to be beneficial for vaporising in any room, especially when experiencing anxiety, sadness, anger, hypertension, frustration, and other negative moods.

At lunchtime I sat at a bistro table on a shady terrace on the Piazza del Duomo. I took my time to enjoy a typical local recipe: fillet of cod with Ciaculli mandarins served with rice. A delicious dish, in which the soft flesh of fish caught that very morning by the village fishermen, was subtly enhanced by the tangy sweetness of sun-gorged Ciaculli mandarins. Besides its popular taste, the mandarin also boasts of recognised therapeutic and sedative properties that promote mental and physical relaxation. The essential oil obtained by cold pressure is slightly bitter and tangy, with an uplifting green facet.





> *No visit to Sicily is complete without a trip to Syracuse, a city located on the Ionian coast and famous for its ancient ruins. The small sea-facing orchards here produce the most delicious lemons.*

No visit to Sicily is complete without a trip to Syracuse, a city located on the Ionian coast and famous for its ancient ruins. The small sea-facing orchards here produce the most delicious lemons. The Mediterranean climate and soil, which combine cool mountain air with the salty air of the sea, make it an ideal place to grow citrus, known here as 'the fruits of the sun'.

Along with the mild climate, the warm sea breeze also plays a role in citrus growing. In lemon orchards close to the Mediterranean, the trees closest to the sea are ready for picking earlier than those located further inland.

I left Sicily for the Amalfi Coast where lemons, citrons, and bergamots are produced in small quantities, cultivated in magnificent terraced orchards overlooking the sea. On the sheer slopes of Amalfi and Sorrento, many citrus orchards are still only accessible by steep steps used by growers to transport the fruit on their shoulders. This is the home of the lemon liqueurs, Limone di Amalfi and Limone di Sorrento, popular all over the world.

In the evening, I decided to saunter down Amalfi's winding streets. My evening went on until late, sipping from a glass of delicious Limoncello in the charming company of Massimiliano, who grows lemons on the Amalfi hills with his brother Angelo.

"...Calabria in southern Italy, which is where one of the most precious citrus fruits in the world is grown. As Massimiliano explained, the region's bergamot is locally referred to as "green gold".

The next day, Massimiliano accompanied me to Calabria in southern Italy, which is where one of the most precious citrus fruits in the world is grown. As Massimiliano explained, the region's bergamot is locally referred to as "green gold". The bergamot citrus is a cross between bitter orange and lime, and is cultivated all along the Ionian and Tyrrhenian coasts. The Calabrian speciality looks like a greenish orange fruit.

Unlike other citrus fruits, bergamot is grown only for its essential oil. The Italian regions of Calabria and Sicily are the largest producers in the world. When in bloom, the bergamot is covered with a multitude of fragrant, white flowers. The fruits ripen between December and March. The scent of the oil extracted from bergamots is, at once, zesty, tangy, effervescent, floral, and sweet. This essence is widely used in perfumery as a head note in Eau de Cologne, and in chypre, fougère, and oriental accords. It is present in famous perfumes like 'Eau Sauvage' by Dior and 'Shalimar' by Guerlain.

In aromatherapy, bergamot essential oil, with its clean and refreshing citrus fragrance, is considered an effective antidote against depression, anxiety, urinary tract infections, and nervous indigestion. The oil has a balancing and toning effect on the nervous system, which makes it effective against psychological disturbances as well as painful spasms. Bergamot is also used in the treatment of all kinds of infections owing to its strong antiseptic properties. From a fragrance point of view, the citrus family includes all citrus notes characteristic of citrus peel (such as bergamot, lemon, orange, tangerine and grapefruit). Using highly specific techniques, citrus essential oils are extracted from the fruits to provide the base composition for precious, refined fragrances. These notes are fresh, light, and very volatile. They are used as top notes, creating a pleasant opening for perfume compositions.

Orange blossom is a delight, not just because of the elegance of the flowers, but also for their intense perfume. The tiny orange blossoms have five white petals and in the language of flowers represent purity and fertility. Which explains why the flowers are often used in floral decorations at wedding celebrations to bode the newly married couple well.

By the end of my trip, I was under the spell of the region's magical historic gardens, planted with magnificent orange trees that thrive in the mild Mediterranean climate. A treat for the eyes, and the nose.

The best memory of my journey to Italy remains the scent of the exceptional citrus fruits: orange, mandarin, lemon, bergamot orange, citron. Their essential oils harbour all the fragrance of these fruits of the sun, evoking the generosity and authenticity of this beautiful region, and combining all the senses to produce an intense feeling of happiness and wellbeing.

Ultra International B.V.
Essential Oils, Ingredients, F & F

CITRUS OIL

Food & Fragrance Essential

YUZU OIL

Citrus junos *Japan*

Traditionally yuzu peel is used in special condiments such as yuzu kosho. Usually around half of the total yuzu peel produced was channelised towards this purpose, with the remaining 50% used for extracting essential oil. However, of late, Japan has witnessed a spate of enquiries, and thereby a spurt in demand for yuzu peel. It is featuring in several new applications, as indicated by the general boom in demand. Recently, France announced the availability of frozen yuzu peel for sale. This is indicative of the growing trend of yuzu peel usage in a plethora of products though there are still takers for yuzu oil.

USD 810.00 /kilo

VANILLA

Vanilla planifolia *Madagascar*

Madagascar continues to dominate world natural vanilla production, usually accounting for at least three-quarters of global annual production. In 2019, Madagascar's production is estimated at between 1,100 to 1,200 MT, down 20% to 30% on 2018 levels, but higher than originally forecast, in part because of the optimum weather conditions. The very high prices of recent years have led to concerns regarding quality, in part because of early picking alongside inadequate curing, including the development of quick curing vanilla practices. The latter not only reduces quality and prices but also substantially limits employment opportunities.

The very high prices of recent years - peaking around USD 600/kg - has not only reduced demand for natural vanilla but also encouraged sizeable production growth elsewhere, including Comoros, Indonesia, Papua New Guinea, and Uganda. This expansion in output will almost certainly lead to a continued fall in prices and a fragile market. Madagascan vanilla prices have already fallen by approximately one-third from their peak levels. In fact, this price fall is smaller than other origins, partly because of the preference of some buyers for Madagascan vanilla. The high vanilla prices have led to reduced demand, changed formulations, as well as the bending of rules regarding product content declarations, leading to false vanilla lawsuits.

In efforts to try to support the industry, which is a vital source of employment in the north-east and foreign exchange earnings, the new Madagascan government has been trying to take a more proactive role in supporting the industry. This has included stringent harvesting dates in some regions, cut-off dates for exports, measures to control pre-financing and speculation, as well as efforts to discourage quick curing and theft with long prison spells for stealing vanilla beans, invariably green immature beans. Some believe that the government should also reduce the 200 or so licensed exporters as well as impose a minimum export quantity in an effort to improve quality and have a better control over production.

There is little doubt that 2020 will see a major re-structuring of the global vanilla industry as the downward pressure on vanilla prices continues - but with current conditions continuing it remains unlikely that prices will collapse in the near future. Buyers have limited their purchases, anticipating further prices falls, and it is hoped that their return to the market will limit the price decline - and most importantly, there will not be a return to the price collapse of 2004 and its dramatic consequences.

NA

KEY LIME OIL, DISTILLED

Citrus aurantifolia Mexico

The Colima region of Mexico is famed for its key limes. This year the rains, though crucial for the health of the lime trees and subsequent oil production, were rather late. The peak season is expected to begin soon now that the rains have arrived. This year, the total size of crop diverted for processing is around 200,000 MT across Mexico. This is a clear decline of about 20% compared to earlier years. One of the key factors behind this development is the growing fresh fruit market. Following a shortage of Persian limes on the east coast of Mexico, more key limes out of the normal 1.8 million MT crop have been diverted to fulfil the fresh fruit shortfall. This has resulted in a scarcity of key lime raw material for processing, especially in summer when the demand is at a peak and industry processes higher volumes. The demand for distilled lime oil is firming up since the middle of this year. For the first time, after an acute slump for two years, the market is looking up with an additional requirement of products. Mexico and Peru are holding very limited stocks and a healthy demand is exerting upward pressure on prices for several weeks now. It is heartening to observe that the market for key lime oil CP has also firmed up since the stocks have been depleted and availability of raw material has been low. Key limes have always commanded rather high prices, whether it is industrial fruit or high-quality fruit. Prices for lime are dependent on a host of factors like the cost of industrial fruit, demand for oil, the number of operating processors, and, to a large extent, the value of the currency and the US dollar. The rate of currency conversion buoys the lime oil prices of both distilled as well as cold pressed variants and keeps them stable. Among all the other products in the citrus family, key lime oil is perhaps the only one where production is punctiliously calculated to cater for the existing demand with no room for speculation. It is advised that requirements are booked at the earliest.

USD 34.00 /kilo

CABREUVA OIL

Paraguay

Myrocarpus frondosus

The market is flush with the availability of 60% quality cabreuva oil. However, on the contrary, at present it is a challenge to obtain its other variant, the 89% grade quality.

USD 39.00 /kilo

GUAIACWOOD OIL

Bulnesia sarmientoi Paraguay

Adequate availability of guaiac wood oil is able to fulfil all current demands.

USD 28.00 /kilo

PETITGRAIN CORDILLERA OIL

Citrus aurantium ssp. Paraguay

This small country has risen to make its mark on the global essential oils map. Petitgrain Cordillera is a distinctive yet difficult-to-obtain oil from Paraguay that has caught the imagination of the aromatic industry. This year the weather has been a big impediment for the processing of petitgrain cordillera oil. Due to its difficulty in availability, the oil commands a transit lead time of six months, and as such requires meticulous advance planning.

USD 64.00 /kilo

VETIVER OIL

Vetiveria zizanioides Paraguay

Vetiver oil too is easily available in large quantities. This is enough to cater for the demand for this oil.

USD 275.00 /kilo

CLARY SAGE OIL

Salvia sclarea L.

Weather conditions affected the clary sage crop and output was considerably down this year.

USD 125.00 /kilo

FIR NEEDLE OIL

Abies sibirica Ledeb.

Siberia has been under the onslaught of severe wildfires. However, it is heartening to receive news that the fires have not adversely impacted the demand for fir needle oil. Prices, therefore, are hovering at steady levels.

USD 34.00 /kilo

PINE OIL

Pinus Sylvestris

Distillers have taken to producing pine oil in accordance with client requirements. Naturally, the production is in keeping with the demand and so prices are stable.

USD 34.00 /kilo

THUJA OIL

Thuja occidentalis

Like pine oil, the production of this oil too is following the demand graph and thereby prices have firmed up and the market is sound.

USD 48.00 /kilo

CORIANDER SEED OIL

Coriandrum sativum L.

This year Russia's coriander seed essential oil yield is estimated to be lower than usual. The output varies from region to region; and this year too is no different. The crop has been harvested across all geographies; and Crimea and Krasnodar notching up significantly improved figures compared to last year. However, other regions like the Rostov, Volgograd, and Voronezh recorded perceivable decline. Though initial reports suggested raised prices by some distillers, there are some who are offering good rates for the product. Despite this, prices are showing signs of weakening compared to the figures of last year. The point to ponder is whether these low prices will sustain, and for how long? In addition, importers in the EU are giving domestic distillers a run for their money. With the competition heating up, once the current inventories are sold at source, prices will definitely escalate. In anticipation of a price hike, there is a beeline to book orders at the current cheaper rates.

USD 49.00 /kilo

DILL WEED OIL

Anethum graveolens L.

Dillweed has not fared well this year. The planted area was lower than last year, and inclement weather has also affected the crop size.

USD 45.00 /kilo

The announcement of additional tariffs on Spanish agricultural exports to the USA has come as a hurdle for Spanish growers. The recent announcement affects the citrus family, peaches and pears and other commodities such as olives, olive oil, wine, ham, and cheese etc. Last year, Spain exported 90 MT of clementines to the USA in the citrus category. With this tariff and rising competition from Morocco, Spanish clementines will be negatively affected.

LEMON OIL

Citrus limon L. Burm. F. *Spain*

Spanish lemon has been facing stiff competition from fruit coming in from Turkey and Egypt. But strict quality checking for pesticides is conducted at borders. The extra tariff levied by the USA is a stumbling block for the sheer volume of Spanish exports to the USA. Lemon exports represent about 1% of the total export volume worldwide; this will be severely stifled and future volumes affected. Initial forecasts for 2019/20 estimate a crop size of 1.1 million MT, a decrease of 14% from the previous year. With this Spain leaves behind the record high of 2019 and returns to the normal average. Of course, much is dependent on the availability of sufficient water in summer and the autumn rains. With an estimated 1,104, 000 MT of fresh lemon, Spain reinforces its position as the world's leading exporter of fresh lemon, and the second largest processor of lemon juice, essential oil, and dehydrated peel. The Fino lemon variety is pegged at 845,000 MT, while Verna volumes will come down to 260,000 MT. The decrease in the Verna crop is due to the rest period of the trees after a bumper production. Despite the shortfall in crop production, the quality of Spanish lemon continues to be a benchmark of excellence.

Euro 18.00 /kilo (Low AR) Euro 10.00 /kilo (Conventional)

SPANISH LEMON PRODUCTION AND FIRST FORECAST FOR THE 2019/2020 SEASON (MT)

Type	*Final Crop 2018/19*	*1st Forecast July 2019/20*	*2nd Forecast Sept 2019/20*
Fino	918,000	845,000	820,000
Verna	382,000	260,000	290,000
Total	1,300,000	1,105,000	1,110,000

The global economic slowdown has impacted almost all countries. Sri Lanka too has been grappling with challenges of minimal demand for natural ingredients. The problem has been compounded by the large inventory volumes held by almost all the major companies. Consequently, all the stakeholders in the value chain, especially the cinnamon leaf oil producers, whole peppercorn producers, and large spice exporters have been adversely affected. Sri Lanka has been facing growing competition from Indonesia. This has had significant impact on the trade of Sri Lankan clove, citronella, and nutmeg. The major spice-growing regions of Sri Lanka received inter-monsoonal rains in the evenings. Interspersed with sunny weather during daytime, the market is looking forward to the promise of better crops at the end of the year. The presidential elections took place in mid-November, and economic activity was low-key. The Sri Lanka rupee had further depreciated.

CINNAMON BARK OIL

Cinnamomum zeylanicum *Sri Lanka*

Globally, the demand for cinnamon bark oil is rather weak. In keeping with past predictions, demand for Ceylon cinnamon has also plummeted. As a result, prices too have taken a steep fall across all grades of Alba, Special, C, M, and H grades of cinnamon bark oil. At places the prices are now at par with cost of production leaving distillers with almost zero margin. This does not augur well for farmers, and other industry players are likely to abandon cinnamon farming for other, more lucrative crops. Additionally, the weak Sri Lankan rupee and low cinnamon prices across international markets have prompted a fall in even the oil grade material. Given the challenges of availability of raw material, it is advisable to plan and book requirements at the earliest.

USD 310.00 /kilo

CINNAMON LEAF OIL

Cinnamomum zeylanicum *Sri Lanka*

The industry is in dire straits since cinnamon leaf is among the worst affected ingredients in Sri Lanka's export market. The statistics indicate a whopping 30% drop in exports this year. Abysmally low prices coupled with a dismal demand has prompted most of the cinnamon leaf distilleries to shut up shop. Given this scenario, there are apprehensions of a critical shortage of raw materials. The material that is being traded at present is old stock from earlier distillations.

USD 21.00 /kilo

CITRONELLA OIL

Cymbopogon winterianus *Sri Lanka*

Sri Lankan citronella continues to face stiff competition from the Javanese variety. Recent export information shows a healthy growth for citronella compared to other commodities. This indicates a spike in demand. However, harvesting is severely disrupted despite a steady supply of raw material. Production remains stable and prices promise to hold up. Market sentiments are favourable; and if market signals are anything to go by, no further price drop is expected.

USD 27.00 /kilo

CLOVE BUD OIL

Eugenia caryophyllata *Sri Lanka*

The weather has been favourable and conducive for clove to flourish. Growers are hoping for a healthy crop this year. Prices have not moved much since the last quarter. This is set to continue till the time the fresh harvests come in at the end of the year. Only then will there be some sharp movement on the prices of clove. However, it will be difficult to match the price points of the Indonesian offers.

USD 77.00 /kilo

CLOVE STEM OIL

Eugenia caryophyllata *Sri Lanka*

Clove stem also follows the trajectory of clove bud. The raw material for clove stem oil is expected to come in only by December 2019. Naturally, price corrections will not happen until December. At the moment, prices have touched a peak point but are steadfast in their position.

USD 51.00 /kilo

NUTMEG OIL

Myristica fragrans *Sri Lanka*

Nutmeg prices have plunged and the situation continues to remain status quo. These low rates exert pressure on producers to keep their costs low, especially in order to compete with their Indonesian counterparts.

USD 65.00 /kilo

BAY LEAF OIL

Laurus nobilis Turkey

Turkish bay leaves, known for their unique aroma and taste, are a favourite in culinary applications. Harvested from September through to December, the slender, oval-shaped leaves vary from 1 to 4 inches in length but do not yield much oil. The fresh leaves yield around 5 to 8% essential oil, while the dried leaves produce a little more, up to 15 to 18% oil. Turkey's total production ranges from 14,000 to 15,000 MT per annum but significantly small quantity is distilled for oil.

Euro 92.00 /kilo

CUMIN OIL

Nigella sativa Turkey

Cumin, mostly used domestically as a spice or exported for the same purpose, is now being distilled for oil. Central Anatolia accounts for the main cumin production with an annual production of almost 20,000 MT. The harvest is completed by August; and the crop yields about 15 to 16% essential oil. Considering the demand for cumin oil is rather weak, the distillers produce limited quantities. However, cumin oil is gaining momentum, albeit slowly.

NA

ROSE OIL

Rosa damascena Turkey

Turkey runs neck to neck with Bulgaria in the production of rose oil, a most favoured ingredient in cosmetic and perfumery. However, despite being obtained from the same *Rosa Damascena* flower, local climatic conditions and certain distinctive factors distinguish the two varieties. Turkey produces around 1,200 to 1,500 kg of rose oil and production of rose concentrate goes up to 10,000 to 12,000 kg.

NA

OREGANO OIL

Origanum vulgare Turkey

There are about over 20 varieties of indigenous oregano that is found in Turkey. The most common, the *origanum onites L.* type, is a perennial plant which grows up to about 100 centimetres in height followed by *vulgare, minutiflorum, dubium* types. These are handpicked and wild harvested; and produce the distinctive spice that is also widely used in Mediterranean cuisine. Turkish oregano gets its distinguishing features with the inflorescence (spikes arranged in false corymbs) and the one-lipped calyces. Harvesting over the months of June to September, and average carvacrol content of about 75 to 80%, the leaves yield around 4 to 4.5% of essential oil. Turkey is among the global oregano producing nations with crop production figures touching 18,000 MT per annum. The Aegean region of Turkey where both farming and cultivation takes place, boasts the lion's share in contributing the national average with around 15,000 to 16,000 MT.

Euro 77.00 /kilo

Normal summer weather with average rainfall and warm temperatures augured well for USA citrus. Going by initial crop indicators, growers were looking forward to a healthy crop and promising season. Except for the period of abnormal aridity in the Indian River District, all was progressing well. Hurricane Dorian, classified as a Category 5 storm, hit offshore but brought rain and winds up to a speed of 35mph. The citrus belt was hit; but fortunately, there was little damage. On the contrary the optimum growing conditions resulted in improved fruit sizes.

GRAPEFRUIT OIL

Citrus paradisi *USA*

USA's grapefruit crop once again records a healthy 4.60 million boxes, an escalation of 19% from last year's figures. Out of these, red grapefruit comprises 3.90 million boxes, while white grapefruit makes up the balance with 0.7 million boxes. A point to be noted is that this year's average fruit per tree of 40 pieces is the highest recorded since 2015-2016. While red grapefruit is following its usual pattern of an average fruit size, white grapefruit broke the mould with larger than average fruit size.

USD 59.00 /kilo (White)
USD 34.00 /kilo (Pink)

USA - ESTIMATED GRAPEFRUIT PRODUCTION ('000 BOXES OF 40.8 KG EACH)

X million of 40.8 kg Boxes	*2017/18*	*2018/19*	*Forecast 2019/20*
Florida	3,880	4,510	4,600
Red	3,180	3,740	3,900
White	700	770	700
California	3,800	3,200	4,200
Texas	4,800	6,100	5,700
United States	12,480	13,810	14,500

ORANGE OIL

Citrus sinensis USA

According to the USDA's November forecast for the 2019-20 orange crop, production of 123.7 million boxes is almost identical to the previous year and well above 2017-18 production levels. Florida is forecast to contribute 74.0 million boxes, California and Texas pitch in with 47.0 million boxes and 2.7 million boxes respectively. The forecast was arrived at after considering 50.1 million bearing trees for all oranges, and both regular and the first late blooms. In Florida the forecast is for 32.0 million boxes of non-Valencia oranges comprising the early, midseason, and Navel varieties; and 42.0 million boxes of Valencia oranges, the latter is 2% higher than last season's production. The estimated number of bearing trees is 29.6 million. This year with the strong gusts of Hurricane Dorian, fruit droppage was above average at 28%. Fruit size too is smaller than what has been observed in previous years. The predictions for non-Valencia oranges stand at 32.0 million boxes. With 19.5 million bearing trees, not considering the Navel orange, this year records a 5% increase. Improvement in the Navel orange forecast is about 7% on last year's figures. The total is pegged at 800 thousand boxes. With good weather prevailing throughout and minimum damage by the hurricane, the projected fruit size of all these varieties is somewhat below normal, with droppage also going up marginally above the average.

USD 6.00 /kilo

USA - ESTIMATED ORANGE PRODUCTION

X 1000 Boxes	*2017/18*	*2018/19*	*Forecast 2019/20*
Florida	45,050	71,750	74,000
California	44,200	49,800	47,000
Texas	1,880	2,500	2,700
Total	91,130	124,050	123,700

PEPPERMINT OIL

Mentha piperita USA

As the US market really has continued to be relatively flat regarding production and supply, information remains unchanged since our last report. As we move toward winter, it is necessary to keep a close eye on soil moisture, temperatures, and eventually snow fall, which all have a major impact on the health of the roots for next season. As far as acreage changes, further information is available after winter when most of the growers will plant new acreage and we can advise on the market accordingly.

USD 59.00 /kilo

BASIL OIL

Ocimum basilicum L. Vietnam

Severe storms last year posed a challenge for the basil crop. The good news is that weather conditions this year are quite good for the growing of basil. Price is expected to be stable.

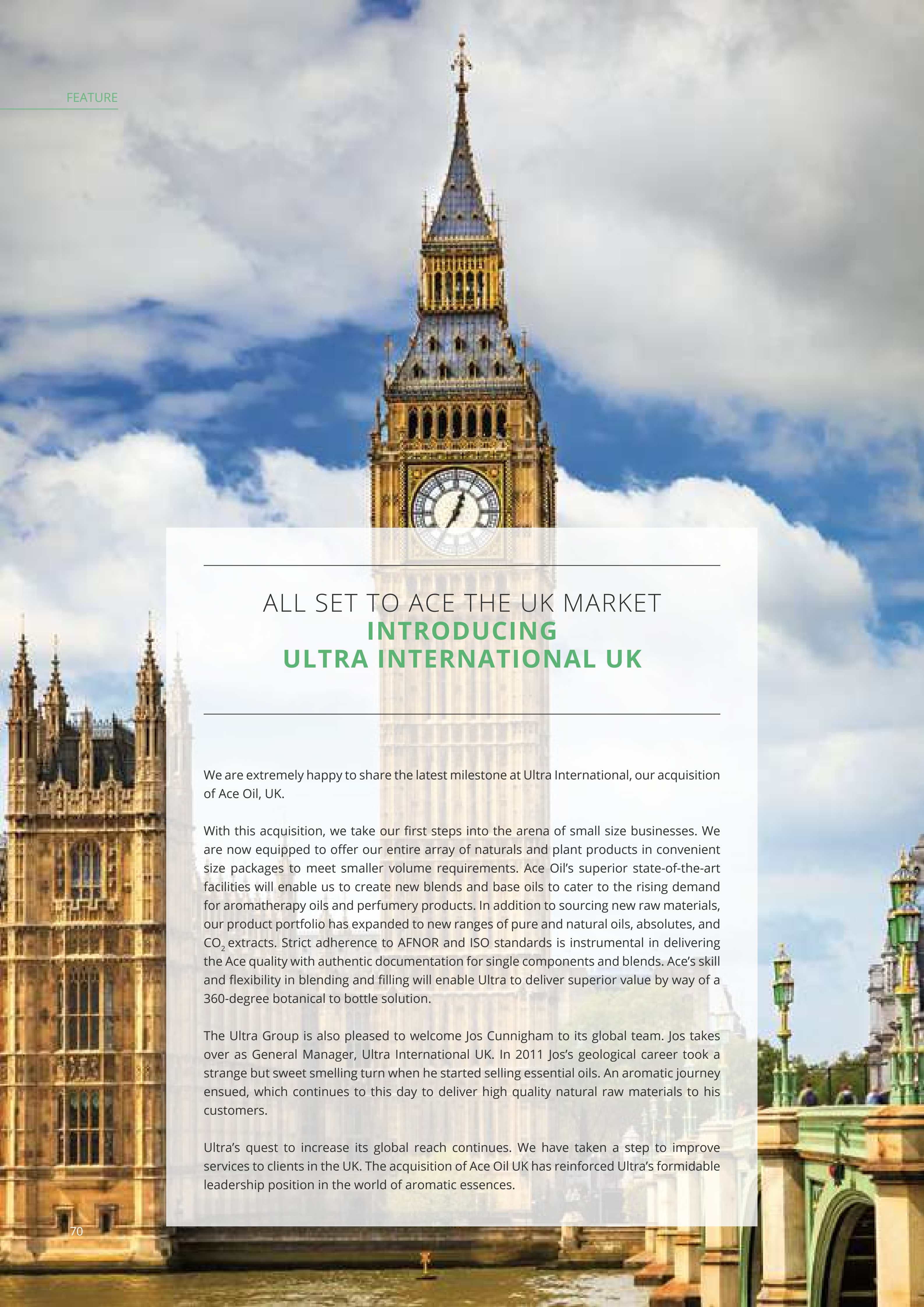
USD 26.00 /kilo

CASSIA OIL

Cinnamomum cassia Vietnam

The price of cassia oil is at a historic low. Farmers are less enthusiastic for cassia business and some have even stopped harvesting cassia leaves. We foresee prices to go up in the following year and therefore now is a good time to keep stock.

USD 52.00 /kilo



ALL SET TO ACE THE UK MARKET
INTRODUCING
ULTRA INTERNATIONAL UK

We are extremely happy to share the latest milestone at Ultra International, our acquisition of Ace Oil, UK.

With this acquisition, we take our first steps into the arena of small size businesses. We are now equipped to offer our entire array of naturals and plant products in convenient size packages to meet smaller volume requirements. Ace Oil's superior state-of-the-art facilities will enable us to create new blends and base oils to cater to the rising demand for aromatherapy oils and perfumery products. In addition to sourcing new raw materials, our product portfolio has expanded to new ranges of pure and natural oils, absolutes, and CO_2 extracts. Strict adherence to AFNOR and ISO standards is instrumental in delivering the Ace quality with authentic documentation for single components and blends. Ace's skill and flexibility in blending and filling will enable Ultra to deliver superior value by way of a 360-degree botanical to bottle solution.

The Ultra Group is also pleased to welcome Jos Cunnigham to its global team. Jos takes over as General Manager, Ultra International UK. In 2011 Jos's geological career took a strange but sweet smelling turn when he started selling essential oils. An aromatic journey ensued, which continues to this day to deliver high quality natural raw materials to his customers.

Ultra's quest to increase its global reach continues. We have taken a step to improve services to clients in the UK. The acquisition of Ace Oil UK has reinforced Ultra's formidable leadership position in the world of aromatic essences.

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