

ESSENTIAL OILS
MARKET REPORT
SPRING 2018

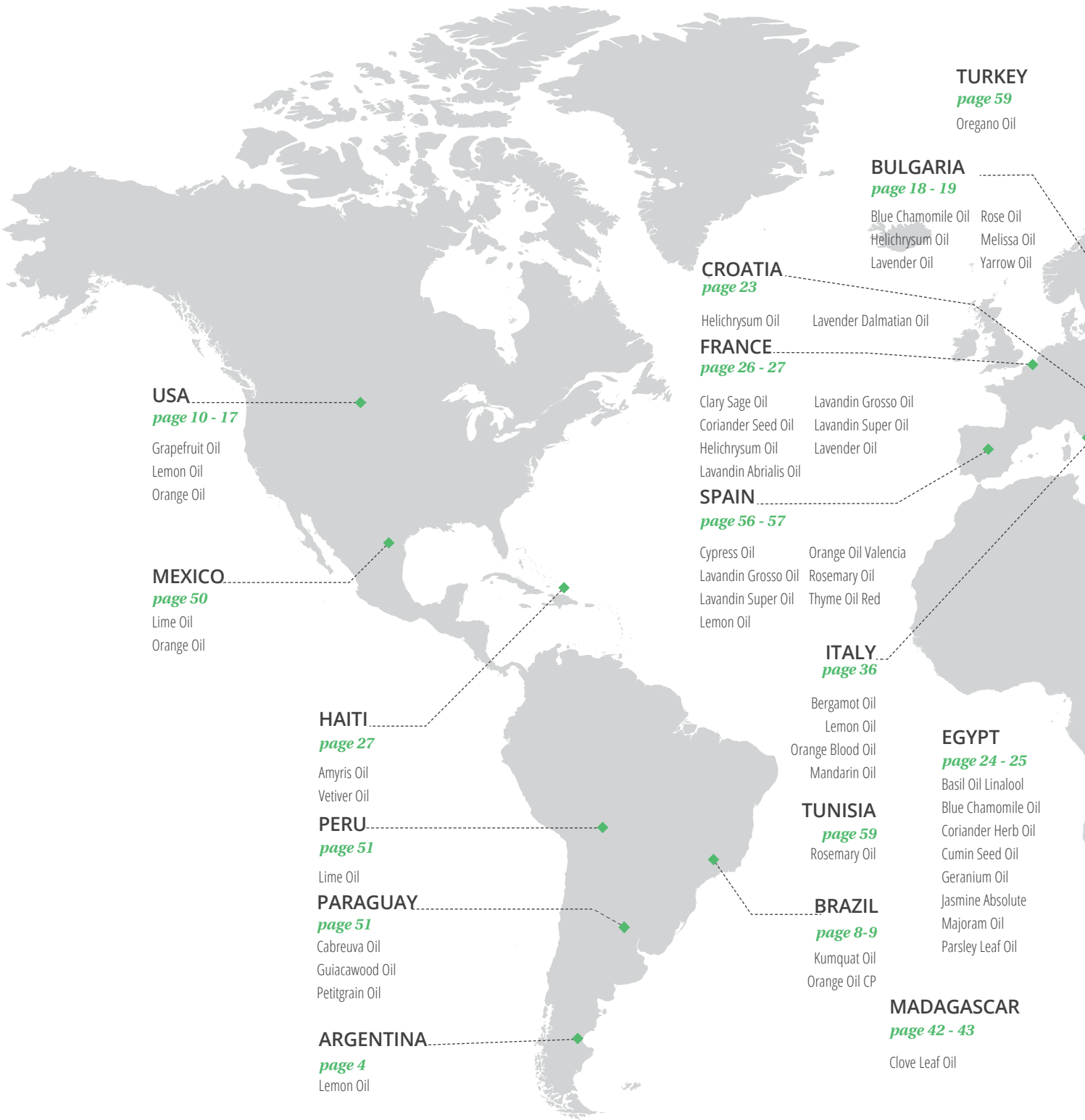


ROUNDING IT UP



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

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Orange Oil

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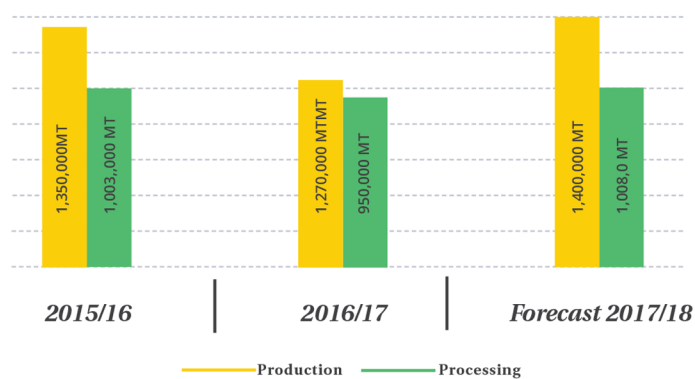
LEMON OIL 📍 Argentina

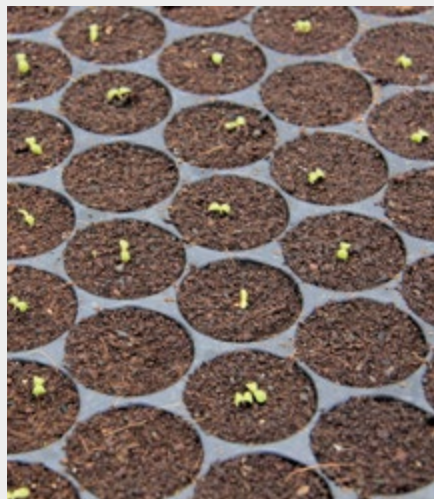
Citrus limon L. Burm. F.

Supply from Argentina remains limited, and consequently prices have firmed up. It is still too early to predict what the 2018 crop will look like. Suppliers tentatively suggested a similar crop to 2017, anything around 1.2 million tonnes of fruit is considered normal. Argentina’s production is slated to rise 100,000 MT to 1.4 million tonnes in a recovery from last year’s frost damage. Fruit for processing and exports are expected to rise with the larger crop. Lemons for processing are forecast to increase to 1.08 million MT from 992,000 MT the previous year. The market does seem quite stable at present, but we will be keeping a close eye on any movement as we approach the new harvest.

📈 USD 35.00 /kilo

ARGENTINA - ESTIMATED LEMON PRODUCTION AND PROCESSING DATA





In keeping with its commitment to quality, Golden Grove Naturals has made significant investments in land and logistics.

A *seedling nursery* has been established to support the ongoing development of Australian native plant extracts. With a projected capability of more than 3.5 million seedlings per annum, the 70-hectare Research & Development block will support it. This block is also under development. Work for both developments is proceeding at a vigorous pace and includes irrigation upgrades, flood mitigation, and levelling.

A *new 350 Bhp steam boiler and boiler house* has been recently installed. The issue of better storage is addressed with the construction of a new, almost completed 600m³ warehouse. This facility is dedicated to house bulk product storage tanks and finished goods.

Additional improvements to liquid handling, packaging, and logistics management bear testimony to Golden Grove's assurance of purity.



BUDDAWOOD OIL 🌍 Australia

Eremophila mitchellii

The market maintained momentum with sales and production escalating at a healthy organic rate. The distillation facility has been upgraded, leading to availability of larger batch sizes. On-ground available stock implies accelerated turnaround times.

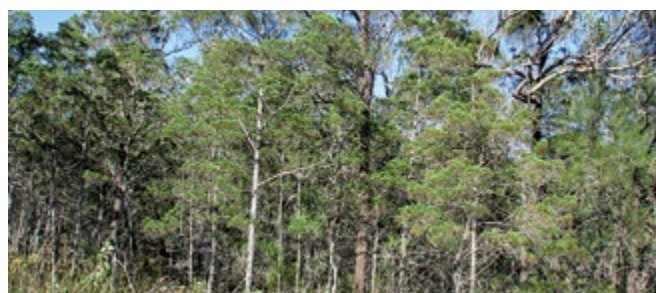
🏠 AUD 600 .00 /kilo

EUCALYPTUS RADIATA 🌍 Australia

Eucalyptus Radiata

The total size of Australian production is estimated to be not larger than 7 MT per annum. With demand soaring by almost three fold, the market remains under pressure to deliver. This has led to a rise in prices. Fresh investments have buoyed hope that by 2018 newer plantations will yield more available material.

🏠 AUD 75.00 /kilo



CYPRESS OIL BLUE 🌍 Australia

Callitris intratropica

The market remains firm despite enhanced capacity; with demand levels reaching a new highpoint in the aromatherapy arena. If the patent on the distillation process is renewed in 2018, then the monopoly stronghold continues unabated. If not, we must prepare for competition later in the year.

🏠 AUD 750.00 /kilo

EUCALYPTUS HORISTES 🌍 Australia

Eucalyptus kochii

We perceive significant progress for this variant of eucalyptus too. Production, as well as demand, commands healthy numbers as yield from established plantations and crop rotation is continued. Recent investments and augmentation of facilities have enabled producers to gear up for an increase in supply. Further, there is an availability of high quality (>90%) eucalyptol.

🏠 AUD 30.00 /kilo



KUNZEA OIL

Kunzea ambigua 🌍 Australia

There are continuing investments into harvesting and distillation methods to supplement existing capacities across Tasmania with plans to produce as much as 5 MT over the next couple of years. These additional volumes have already been committed to the growing aromatherapy demand; so producers are looking at more investments. Fresh demand has resulted in further pressure; availability is scant despite supplies remaining firm.

📈 AUD 350.00 /kilo



LEMON MYRTLE OIL

Backhousia citriodora 🌍 Australia

There is a growing demand beyond the means of suppliers to satisfy. The very low supply combined with sufficient availability of synthetic product has made the market difficult. There is a focus on culinary dry leaf production over oil production as it provides premium returns.

📈 AUD 350.00 /kilo



ROSALINA OIL

Melaleuca ericifolia 🌍 Australia

As different qualities of the same botanical are produced in different growing regions within Australia there is an availability of two qualities of rosalina oil in the market. An introduction of a sustainable alternative in the aromatherapy sector (referred to as Southern Rosalina) has been encouraged due to limited supplies on the mainland. Market sentiments are positive and supplies are expected to improve in 2018.

📈 AUD 350.00 /kilo



SANDALWOOD INDIAN OIL

Santalum album 🌍 Australia

Despite the ongoing financial instability recently reported, there is an uninterrupted supply of Indian sandalwood oil from the two plantation producers. This ensures reasonable oil volume availability.

📈 USD 2600.00 /kilo



SANDALWOOD OIL QUEENSLAND

Santalum lanceolatum 🌍 Australia

This is an oil that is new to the market, but traditionally has been used for incense and carving. It is clear to brown, viscous (honey like), smooth, has a sweet woody aroma (with floral, rose and orange notes). As an effective relaxant, Northern Sandalwood is calming, stills the mind and is beneficial in improving mental clarity. Its aroma is smooth, fragrant, earthy, woody aroma like traditional Australian Sandalwood with beautiful soft floral, rose and orange notes, compared to our traditional Australian Sandalwood oil. Supplies remain sound with producers willing and able to supply 5 MT per annum.

🏔️ USD 1550.00 /kilo



SMOKEY TEA TREE OIL

Leptospermum.spp. 🌍 Australia

The plant, native to Tasmania and South East Australia, is harvested for its leaves and terminal branches. With almost 80% levels of alpha pinene, it is a wonderful anti-inflammatory and anti-microbial agent; and a popular ingredient in aromatherapy and Ayurveda products. The oil functions as an acetyl cholinesterase inhibitor and also a bronchodilator, thus acting as a broad spectrum antibiotic. Although commercial lines are still in the development stage, we have oil to offer.

🏔️ AUD 200.00 /kilo



TEA TREE OIL

Melaleuca alternifolia 🌍 Australia

Currently, we feel that there are zero oil reserves in Australia. 2018 has opened with nil carryover stock from last year as production declined due to floods and heavy rains. The production season is due to commence in July to August 2018, assuming crops have time to recover from recent extremely hot (>43°C) weather. Present production is affected as many farms are struggling with Pyrgo infestations, which is tea tree's primary pest insect.

🏔️ AUD 52.00 /kilo



MANUKA OIL

Leptospermum scoparium 🌍 Australia

The market is very difficult as there are limited reserves of stock available while there is high demand. Supplies have been limited due to continuous rainfall in the production areas. Plantations will only come into production when rainfall decreases. 2017 was the year when it did not stop raining, with record rainfall levels during the last 12 months. As it's always in high demand, additional plantations are being established in Australia.

🏔️ NA

KUMQUAT OIL 🌐 *Brazil*

Fortunella japonica

With the current interest and ongoing development work at the end user level, plans are in the offing to expand capacity, which is currently around 5 MT per annum. Similar levels of production are also projected in the coming year 2018 since the cultivated area is well protected from unusual climatic conditions.

🏠 USD 220.00 /kilo



ORANGE OIL CP 🌐 *Brazil*

Citrus sinensis

In January 2018 the USDA forecast a substantial 15% year-on-year reduction in Brazil's orange production to 17.3 million MT (425 million boxes of 40.8 kg) for 2017/18. Since Brazil is in the southern hemisphere, the Brazilian crop year begins in July and the USDA crop year estimates for 2017/2018 refer to the year beginning in July 2018. This estimated reduction is based on lower yields and an off-cycle year. Unfavourable weather conditions resulted in poor bloom and fruit set. Nevertheless, the crop is still larger than two years ago. Moreover, estimates could be revised upwards in May following new flowering at the end of 2017 combined with improved weather conditions.

The USDA figure for the current 2016/2017 crop has been revised upwards to 20.4 million MT (500 million boxes). This increase is due mainly to favourable weather conditions, and reinvigorated orange groves recovering after an off year, which resulted in good bloom and fruit set and a larger size of fruits from the Sao Paulo and Minas Gerais regions. Sao Paulo state dominates Brazilian orange production, accounting for approximately three-quarters of output.

The trends in Brazilian orange production and processing are summarised below.

🏠 USD 10.00 /kilo

BRAZIL ORANGE PRODUCTION AND PROCESSING (MILLION BOXES OF 40.8 KG)

<i>USA marketing Year</i>		<i>2015/16</i>	<i>Current</i>	<i>July 2018 to June 2019</i>
<i>Brazil marketing Year</i>	<i>2015/16</i>	<i>2016/17</i>	<i>2017/18</i>	<i>2018/19</i>
Total Production	409.7	353.3	500	425
Sao Paulo	300.7	245.3	395	320
Others	109	108	105	320
For Processing	282	232	374	302
% For Processing	68.8%	65.7%	74.8%	71.10%

Natural Ingredient Resources LLC

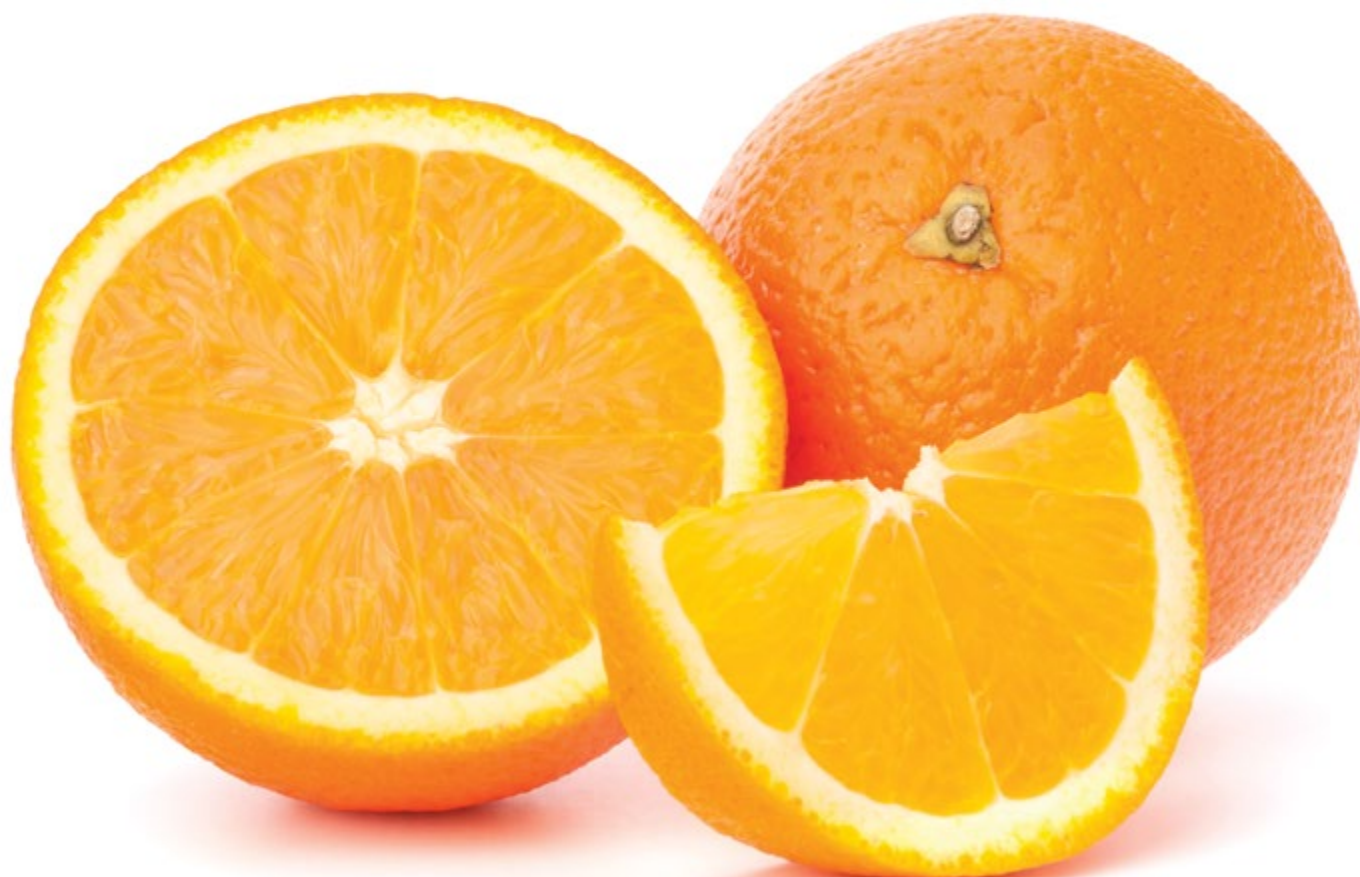
While fresh orange consumption is down only slightly, the impact of the predicted fall in production will be greatest on orange processing, and hence orange juice and orange oil production. Oranges for processing are estimated to be down 2.9 million MT (65 degree brix) in 2017/18 to 12.3 million MT (302 million boxes), leading to a fall in orange juice production and exports. Orange juice production is slated to plunge 16% based on fewer oranges and reduced consumption. Brazil accounts for approximately three-quarters of world orange juice exports. Further increases in price can be expected for the new crop.

Oranges for processing **-2.9 MT** *Orange juice production* **-16%**
are estimated to be down *is slated to plunge*

Alongside the number of oranges produced and processed, the size of the fruit can also influence the amount of orange oil produced. Thus, the bigger the fruit, the smaller number of fruit per box and the less overall surface processed which in turn means a lower quantity of essential oil. Because of lower orange oil production and a limited inventory the market will continue to remain firm.

On a brighter note, recent data suggest that the impact of greening has stabilised over the past two years. An official survey in 2017 showed that 16.73% of trees in the main growing regions were affected by greening, compared with 16.92% in 2016. Good management practices including the removal of infected trees have limited the spread of the disease.

“ On a brighter note, recent data suggest that the impact of greening has stabilised over the past two years.



A PEEP INTO THE ZESTY SIDE OF LIFE

A CITRUS REPORT

The one-stop on history, evolution, and the latest information on the US citrus oil crops that are making waves across the globe. Here's our update on grapefruit, orange and lemon.

A FRUITFUL BEGINNING

Those who know their history well would know that Christopher Columbus is not only credited with discovering America but was also the first person to introduce the citrus to the newly-discovered land; first brought to the New World by the explorer in 1493. Later, it was the Spanish missionaries who were instrumental in undertaking extensive citrus plantings across California. Citrus commercialisation however got a boost with the Gold Rush of 1849 and advent of the transcontinental railway. With scientific progress in refrigeration and transportation logistics, citrus cultivation received an impetus. Today, the bulk of the USA's citrus output comes from the states of Florida, California, Texas and Arizona.

USA: GRAPEFRUIT (*Citrus Paradisi*)

The grapefruit is not native to the Americas. It was brought by the French Count Odette Phillipe in 1823 but was not popular at the time. But the fruit being 'thick-skinned' was impervious to criticism, and adapted beautifully to the high temperature and sandy soil of Florida. With the exception of the Pummelo, the season for all the other varieties of grapefruit starts in November and runs through till May.

There is an assortment of grapefruit available in the market – white, pink and red. A common misconception, it is not the colour of the peel, but the flesh which has the pink tinge. It varies from white to pale pink. They are classified according to the hue of their flesh. This vibrant colour is caused by citrus pigmentation; and, to a large extent, contributes to its ripeness.

1. CITRUS PARADISI DUNCAN (WHITE)

It is believed to be the oldest grapefruit variety grown in the USA. The mature tree can grow up to 15-20 feet with vigorous, spreading leaves bearing heavy fruit. With a large size fruit and very seedy texture, it is used mainly for juice purposes. The flavour is considered far superior when compared with the other seedless variety.

2. CITRUS PARADISI FLAME (RED)

The tree can grow to a large size and is reported to be more cold-tolerant than most red grapefruit. They bear heavier fruit than most varieties; and holds on the tree for months, making it an excellent container plant. The size of fruit is large and has a smooth yellow rind with pink blush. The flesh of the fruit is tender with an internal colour as dark as Star Ruby. It has a sweet flavour and is known for its juiciness.

3. CITRUS PARADISI MARSH (WHITE)

A vigorous evergreen tree for warm climates, the fruit becomes sweeter if crops are left to mature for longer periods of time. The tree thrives in a warm sheltered position in rich well drained soil. This variety is by far the most popular. With yellow-white flesh and yellow skin, this grapefruit is both sweet and acidic. It is used for commercial purposes, as it is rich in juice.



4. CITRUS PARADISI RUBY RED (PINK)

A fast growing tree, the mature plant of the Ruby Red can reach up to 20 to 25 feet in height, when planted in well-drained loam to sandy loam soil. Like its other cousins, it is particularly frost sensitive. The tree puts out white, very fragrant four-petal flowers, followed soon thereafter with golden fruit. It gets its name from its growth pattern: it grows in clusters like grapes. There are six grades of Ruby Red available in the market. With a pale pink peel and rich juice content this is also the most nutritious. The size of the fruit varies from 3" to 5".

5. CITRUS PARADISI STAR RUBY (RED)

Compared to other grapefruit varieties, Star Ruby is more difficult to grow; and often bears smaller-sized fruit. The tree flourishes in sheltered but sunny regions but is somewhat susceptible to nutrient deficiencies, cold temperatures, and pest problems. Sweet to the taste and the darkest of the reds, Star Ruby lives up to its name with its deep red flesh. However, the intensity of colour fades in cooler climes. It is available in very limited numbers; and has smooth yellow skin with a pink blush.

6. CITRUS MAXIMA PUMMELO (HIRADO BUNTAN)

The Pummelo (commonly known as the pomelo or the shaddock) is the gentle cousin of the grapefruit; and is also considered its forbear. The tree can reach from 6 to almost 15 feet in height with low, irregular branches; it thrives in the coastal habitat. The season starts in November like the other grapefruit, but ends in early February. There are many varieties of crop available ranging from 20-30 in number. The fruit sizes vary from 5"-7". Rather mild in taste, the Pummelo HB is sweet to the palate and low in acidic content. It is used in Chinese cooking and as dessert or salad fruit.

7. CITRUS MAXIMA PUMMELO (ORO BLANCO)

This tree grows vigorously to a large size with spreading foliage. Among all the citrus varieties, this is the most cold-intolerant citrus species; and can grow up to 15 to 50 feet in height. The tree has large evergreen elliptic leaves. Meaning 'white gold' in Spanish, it is sweet and juicy without any bitterness or acidity and available in quite a few varieties.

NEWS FROM THE FIELD FRONTIER: THE PRODUCTION TRENDS

The issues arising from years of decline due to citrus greening continue to remain the same. Hurricane Irma blew immature fruit off the trees, continuing to put additional pressure on an already fragile market. Total grapefruit production in the early season of 2017/2018 was forecast at 4.65 million boxes, of which, 3.8 million were red fruit and 0.85 million were white fruit. As per USDA report, the production is projected to drop more than 20% to 481,000 tons, reflecting losses mostly in Florida. As greening continues it adversely affects production, as very little fruit is available for processing, export or domestic consumption. Reduced availability of fruit for processing has sent oil prices spiralling out of control in recent months. Estimates of fruit size and droppage rates have been finalised with larger than average size for both whites and reds, and significant droppage. January month end row count surveys show 71% of white and 62% of red grapefruit has been harvested.

The impact of hurricane Irma will be felt for at least three to four years due to flooding in the groves. Tree roots have suffered in standing water, which has caused root rot with many trees dead or dying, at which time growers will face the decision of whether to replant grapefruit trees at a time when the juice market continues to decline year-on-year.

In conclusion, since Florida remains the largest supplier of grapefruit oil to the world, 60% to 65% of that total production goes to Japan: it means there is going to be very little supply of oil available in the spot market

▲ USD 120.00 -125.00 /kilo (White) | 110.00 -115.00 (Pink)

FLORIDA - GRAPEFRUIT PRODUCTION DATA

X 1000 Boxes	2013/14	2014/15	2015/16	2016/17	Forecast 2017/18
Total Production	15,650	12,900	10800	7760	4650
White	4150	3250	2490	1480	850
Red / Pink	11500	9650	8310	6280	3800

USA: ORANGE (*Citrus Sinensis*)

If you were in America, a glass of fresh orange juice would be a standard with your breakfast. Who would have known that the orange travelled halfway round the world to reach American shores and on your table? Yes, the orange is not native to the USA. The ancient Eastern civilizations were familiar with oranges since time immemorial; but Spanish explorer Ponce de Leon is credited with bringing in and planting the first orange grove in Florida in the 16th century. Today Florida produces more than 70% of the United States' supply of citrus; and second only to Brazil in global orange juice production. Today, 95% of the orange juice made in the USA is obtained from Florida oranges.

The USDA forecast released in February estimated the Florida crop to be 45.0 million boxes, some 2% down on its January estimate. This is 35% less than last season's final production of 69 million boxes and dramatically down from the peak of 244 million boxes in 1998. The total includes 19.0 million boxes of non-Valencia oranges (early, midseason, Navel, and Temple varieties) and 26.0 million boxes of Valencia. A further decrease had been expected because of the recent freezes in Florida during the week of 14 January, 2018.

This year's citrus crop will be the lowest production in more than 75 years for Florida and the industry remains in crisis. Prior to hurricane Irma which moved through the middle of the state on 10 September, 2017, Florida had seen a turnaround and was expecting a better crop than last at about 75 million boxes, which would have been the first upward trend in production in many years since greening (HLB) destroyed a large percentage of orange trees.

Orange EU: Orange forecast is expected to be at 6.2 million MT, which is a 7.7% decrease as compared to the last crop.
Orange Mexico: Orange forecast is expected to be about 4.6 million MT, which is about the same as last crop and about 1.7 million MT is expected to be processed.
Orange South Africa: The production of oranges for the 2017/2018 crop is expected to increase by 2.0% to 1.43 million MT as compared to last crop and an estimated 13% of the crop will go to the industry for processing.

USA - ESTIMATED ORANGE PRODUCTION

X million of 40.8 kg Boxes	2012/13	2013/14	2014/15	2015/16	2016/17	January Forecast 2017/18
Florida	134	104.7	96.95	81.7	68.75	46
California	54.5	49.5	48.2	58.5	50.3	46
Texas	1.793	1.777	1.452	1.691	1.37	1.83
Total	190	155.977	146.602	141.891	120.42	93.83

Over the past ten to twelve years, the decrease in crop sizes has been caused by citrus greening which is a fatal bacterial disease that affects the vascular systems of citrus trees and thus limiting nutrient uptake. The disease reduces yield, fruit size and quality, and increases the cost of production. Since the discovery of greening in the autumn of 2005, the Florida orange crop has declined by over 70% from 242 million boxes in the 2003-04 season.

The apprehensions hovering over the market and projected reduction regarding available supplies have triggered a withdrawal of oil offers from all origins. However, a clearer picture has emerged after buyers took stock of their positions and exposure. This had a positive effect with prices now firming up.

Even though Florida is the largest orange producing state in America and the third largest orange producer in the world (after Brazil and China) and 95% of the fruit is processed for juice, leaving very little for fresh fruit consumption.

📈 USD 10.00 /kilo

1. VALENCIA ORANGES

Valencia oranges are best known as the orange juice oranges, but they are also great to eat too. Valencia oranges have thin skins, a few seeds, and are very juicy. The Valencias were named after the Spanish city of Valencia when they were first introduced in California; and still today they remain a significant citrus crop in that state.

2. NAVEL ORANGES

Sweet and seedless, navel oranges are the most common variety of oranges in the USA. They have thick skins and are distinguished by a characteristic dimple on one end that resembles the human navel. Navel oranges are a seedless variety that is propagated through the use of cuttings.



3. BLOOD ORANGE

Blood oranges have deep red colour on the inside and may have a bit of red on their skins too. Originally from Italy, Blood oranges are now grown mainly in California but not always widely available in the rest of North America. The Blood orange is found in several varieties that are all small, sweet, and often used as fruit to show off their colour. It matures from February through April. Only few varieties, from 4-10, are available in the market.

4. SATSUMA ORANGE

Satsuma oranges are actually a variety of small mandarin oranges that are seedless and easy to peel. They are pretty cold-hardy and grow from around the Gulf Coast in the USA to California. Satsumas are in season from November through to January.

5. HAMLIN ORANGE

Hamlins are a sweet, cold-tolerant orange variety that is mainly grown in Florida today. Their thin rind and seedless, juicy texture make them an ideal juicing orange.

6. PINEAPPLE ORANGE

Pineapple oranges are a seeded, sweet variety that is an excellent fruit, but not cultivated widely due to its susceptibility to diseases and pre-harvest fruit drop. It has earned its name from the peel's tendency to crease with pineapple-like "pits."

7. AMBERSWEET

Bearing medium size fruit, the season of maturity is from October to December. There are many grades of seeds available ranging from 10-20. The flesh of the fruit is tender with a deep orange colour and rich in juice. When it gets too ripe it starts to dry.



USA: LEMON CITRUS (*Limon L. Burm. F.*)

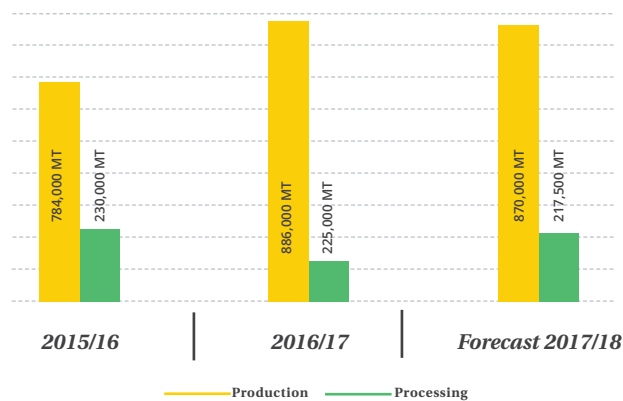
Among all the citrus species, lemons are the most frost-sensitive; minimum ambient temperatures should not drop below freezing point. Perfect for flavouring beverages or adding as accents to culinary art, the lemon is grown as fresh fruit and for their peel oils. Lemons have been commercially cultivated in California and Florida since the 1800s; but due to a killer freeze in the winter of 1894-1895, commercial lemon culture in Florida was badly hit and eventually died a natural death. It was the growth of the demand for frozen lemon concentrate that enthused farmers to resume lemon cultivation decades later.

The USDA forecast for the 2017-2018 United States lemon crop is 870,000 tons, down 4% from last month and down 2% from last season’s final utilisation. The California production forecast, at 20.5 million boxes (820,000 tons), is down 2% from last month but unchanged from 2016-2017.

As the fresh fruit market for lemon continues to strengthen, there are some concerns that the current 20% that goes for processing could considerably reduce in the near future.

📈 USD 40.00 /kilo

USA - ESTIMATED LEMON PRODUCTION AND PROCESSING





CITRUS GREENING

The problem of citrus greening is a lingering one; and the citrus community is reeling under its detrimental impact. However, there is hope on the horizon, as we bring you this snippet from www.freshplaza.com.

Florida company invests in anti-greening technology for citrus.

A Florida citrus company has made a major investment in a technology that can help contend with the lingering issue of citrus greening.

Vero Beach, Florida-based Premier Citrus is forming a new company, Premier Citrus ApZ LLC, which will develop a new technology to boost the delivery and effectiveness of chemicals to offset greening, which can seriously damage a citrus tree and the fruit it produces. An infected tree still produces fruit but as the seasons go on, produces less and less fruit until none can be commercially harvested. "Right now there are no good anti-greening practices or solutions," says Tom Jerkins, president of Premier Citrus. "There are some emergency antibiotics approved on a year-to-year basis, but even those have trouble getting into the plant and becoming systemic."

ROLL OUT PLANS

Heading up ApZ LLC is Harold Browning of the Citrus Research and Development Foundation. ApZ will further develop the technology, called 'laser ablation', to take it from the lab to the field. Premier, which has been using ablation since August and now holds the technology's intellectual property rights, hopes to have the ablation offered in limited availability by the end of 2018 and wide availability by 2020.

“We anticipate at least a ten year gap - likely more - between now and the fruit coming off new tolerant varieties, so this is critical to maintaining continuity of fruit supplies and quality until that time,” says Jerkins.

Laser ablation, developed by laser researcher Greg Drouillard, has been used in surgical medicine for decades. It involves making small notches on the trees, quickly followed by an anti-bacterial chemical spray. The notches help the chemical spread quicker into the phloem, the tree's vascular system, to kill the bacteria.

PART OF THE SOLUTION

Premier sees it as a solution gap of sorts. "We anticipate at least a ten year gap - likely more - between now and the fruit coming off new tolerant varieties, so this is critical to maintaining continuity of fruit supplies and quality until that time," says Jerkins.

As the technology develops, Premier believes that growers will need to purchase smaller quantities of the chemicals involved (and needing to spray them less often—approximately six to eight times per year) because of the efficient distribution system. There are also other potential technology applications including nutritional sprays, pesticides and more. But what's not yet determined is the cost to the grower. "We hope grower costs will be about neutral to conventional spraying. We don't know yet for sure, but that is the goal," says Jerkins.

WATCHING AND WAITING

Until then, Premier also continues to watch closely the development happening in its own groves. "We've seen greatly enhanced systemic movement of many compounds in our groves," says Jerkins. "We have not yet had enough time to observe tree recovery, but that seems very likely to follow. It takes some time to rebuild the phloem tissue that's causing the tree decline."

BLUE CHAMOMILE OIL 🌍 Bulgaria

Chamomilla recutita L.

The markets are stable. Due to its higher chamazulene content, the Bulgarian quality has maintained its position despite the emergence of new producers in other countries.

🏠 Euro 1000.00 /kilo

HELICHRYSUM OIL 🌍 Bulgaria

Helichrysum angustifolium

It is reported that new areas are being planted with helichrysum; farmers are acting in the anticipation that margins will be higher than for lavender and melissa oils.

🏠 Euro 1100.00 /kilo

MELISSA OIL 🌍 Bulgaria

Melissa officinalis

The total area of Melissa plantations covered 2,100 hectares in 2017, from 1,000 hectares in 2016. This has brought some welcome stability to the market, as supply has caught up with demand. However, the prices fell at the end of 2017. The main reason was that after execution of volumes for export, only a few companies are buying the oil, thereby pushing down the price.

🏠 Euro 1800.00 /kilo

YARROW OIL 🌍 Bulgaria

Achillea millifolium

In 2017 despite sufficient supply quantities, prices were dearer than average due to a large spike in demand. There has been a growing interest in this herb due to its deep blue colour and medicinal aroma that the aromatherapy market has started to adopt.

🏠 Euro 1000.00 /kilo

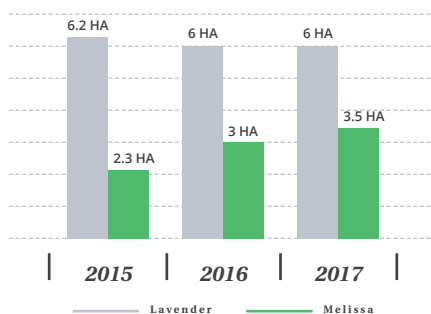
LAVENDER OIL 🌍 Bulgaria

Lavandula angustifolia

There was a sense of disquiet within the farming community with the margins afforded by traditional crops like corn and sunflower amongst others. As a result they have diversified the lavender production areas in the last 3-4 years. The Dobrich area in north east Bulgaria experienced the biggest expansion of new lavender plantation. Also there has been a constant increase in the lavender oil price in the previous 3 years. Local farmers are confident that lavender will yield better margins than traditional crops. In the next 5-6 years, planted areas with lavender are anticipated to grow between 200-300 hectares/year in north east Bulgaria, which produces an estimated 75% of Bulgarian lavender. Projections for 2019 peg the lavender oil production figures at an impressive 600 tonnes if the plantation and climate remain favourable.

🏠 Euro 115 /kilo

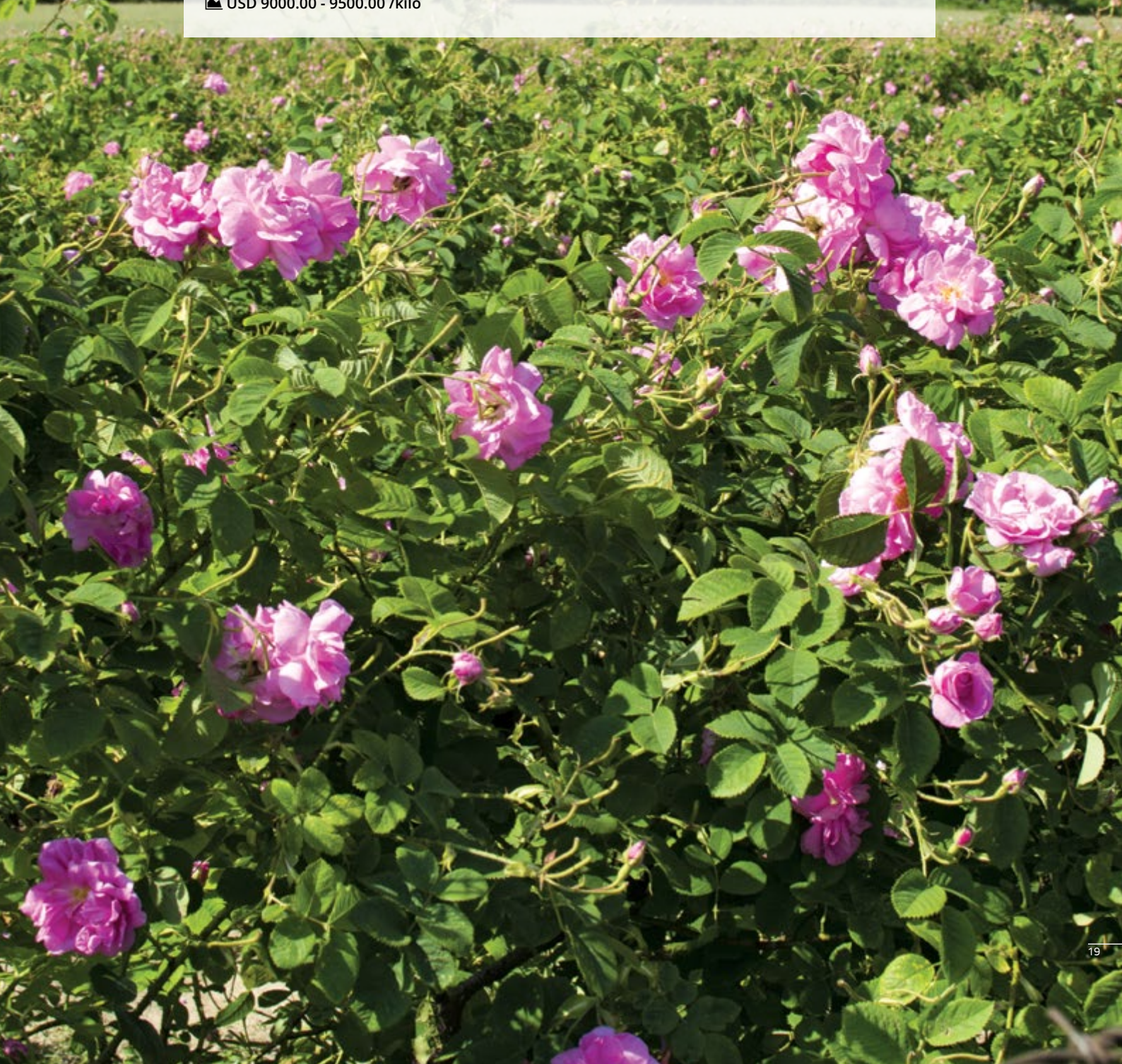
LAVENDER AND MELISSA - AVERAGE SIZE OF PLANTATIONS



ROSE OIL 🌍 *Bulgaria**Rosa damascena*

In 2017 rose oil production reached record levels with a number of companies holding sizeable unsold stocks; thereby putting downward pressure on prices. Some companies have even claimed that they will not produce rose oil in 2018 but we will see. On a positive note, it is good to see the return of rose oil reserves, which should facilitate greater market stability going forward. However the issue seemed to be the non-availability of good quality oil at all times. Some major disturbances like the hanging of too many petals prior to the distillation process have impacted the quality of rose oil. There was a slight uncertainty over the oil supply as some producer circulated blended oil from Iran and Turkey and sold it as pure Bulgarian oil. The surest way to ensure that you are buying the authentic product is to purchase a PGI certified grade. This is a guarantee of the oil being 100% authentic and pure Bulgarian rose oil.

🏠 USD 9000.00 - 9500.00 /kilo





THE CHINESE COLLECTION

The severe snowfall in China has had a large impact on many of the oil production areas. Extreme cold and bad snow conditions added to the woes of the essential oil market; the current tight supply of some natural essential oils came under additional pressure. Also the snow has posed a big challenge for the transportation of the cargoes from factories to the ports. Some companies could not successfully catch the last shipment before the festival holidays for Chinese New Year.

CASSIA OIL 🌐 China*Cinnamomum cassia Blume (Lauraceae)*

Over the past few months there has been an unprecedented increase in demand rather than shorter supplies; and markets witnessed escalating prices.

🏠 USD 44.00 /kilo

CLARY SAGE OIL 🌐 China*Salvia sclarea L.*

Demand for clary sage oil is on the upswing and one source suggested production of 25 MT in 2018. Prices have fallen this year to more competitive levels as compared to the global markets. However, the uncertainties in supply and quality have made this Chinese oil the third choice as compared to its Russian and French counterparts.

🏠 USD 160.00 /kilo

CITRONELLA OIL 🌐 China*Cymbopogon winterlanus*

China's price rose last year as the production declined from 2,300 MT to 1,500 MT as a result of inclement weather. With the lack of stock and active demand, prices are firming up. New oil will be available by the end of April at the earliest.

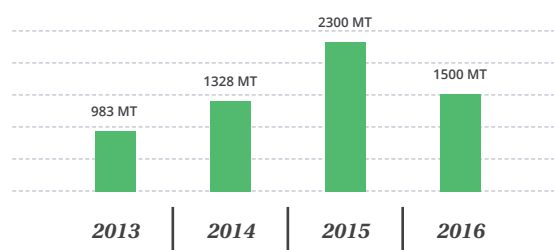
🏠 USD 32.00 /kilo

EUCALYPTUS CITRODORA 🌐 China*Corymbia citriodora*

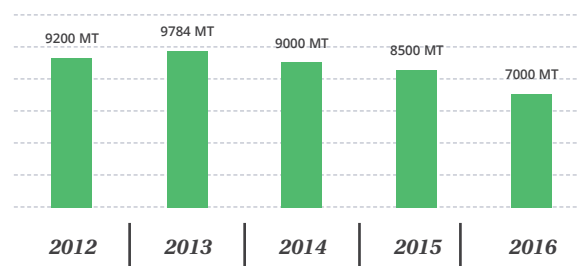
There has been no major improvement specific to the Eucalyptus Citroedora supply situation. Production forecasts anticipate that output will be smaller than that of last year. From the farmers' perspective there is less enthusiasm to cultivate and harvest, thus indicating possible price escalation. It is recommended that you cover your needs.

🏠 USD 30.00 /kilo

CHINA - ESTIMATED PRODUCTION OF CITRONELLA



CHINA - ESTIMATED PRODUCTION OF EUCALYPTUS



“The eucalyptus market appears to be in turmoil. The ongoing crop season is still facing adverse weather conditions in the region, namely very cold and rainy weather. The total output has declined steadily over the past few years causing prices to be at an all time high.



GARLIC OIL 🌐 China

Allium sativum L.

The production of garlic oil has been stopped by the factories, which have been affected by environmental factors, labour costs and rising raw material costs etc. With no real foreseeable positive changes on the horizon regarding environment protection orders and other rising costs, prices have plateaued at current levels. There has been adulterated “natural garlic oil” circulating in the market by companies who add other natural substances to the oil that even the C14 test is unable to detect. With very little chance of further decline in garlic oil prices, customers are advised that it is an ideal time to purchase after considering quality factors and not base your decision on price only.

🏠 NA



GERANIUM OIL 🌐 China

Pelargonium graveolens

There has been a continuous pressure on supplies with increasing demand but output has declined more than last year, and prices continue to rise. At present, the limited carryover stock available suggests that the upward pressure could continue. The crop season starts in May and continues until September. If weather conditions improve in the growing areas, there is hope that the additional plantings could help ease the pressure on supply.

🏠 USD 260.00 /kilo



GINGER OIL 🌐 China

Zingiber officinale

2017 saw a steady price rise for ginger oil, since most of the production was made to order due to environment protection orders. Supplies remained difficult as environment protection orders imply that farmers have not been able to distil much oil even when raw material has become available. 2018 started on a more positive note and the market appears to be more balanced. Chinese New Year prompted the price for raw materials to firm up somewhat.

🏠 USD 105.00 /kilo



LAVENDER OIL 🌐 China

Lavandula angustifolia

Over the past couple of years, Chinese quality lost some presence in the international market place as other origins continued to blossom. But still, all oil is sold out and there is no oil left in the market. Coupled with the increase in current demand, there is an acute shortage of supply. The increased demand is due to the higher content of lavandulum acetate in Chinese lavender ranging from 5-11% whereas European origin has LA content much lower, to the tune of 2-4% on average. There have been heavy investments in new plantations, expanding the total growing area by cultivating many hectares of the crop. Overall lavender volumes in 2017 lasted the market for the whole year with no supplies remaining available as we entered into 2018.

🏠 USD 160.00 /kilo



STAR ANISE OIL 🌐 China

Illicium verum

Output of new star anise oil is small due to adverse weather conditions. Supply is limited and prices continue to reach astronomical levels due to lack of labour and the cold weather. The start of the star anise oil season is April and May in summer and November and December in winter. The market is expected to remain stable until the Chinese New Year and then to firm up when demand re-appears.

🏠 USD 28.00 /kilo

TEA TREE OIL 🌐 China

Melaleuca alternifolia

No real changes as the market remains stable with the price level similar to recent years. As the crop season has started there is an increase in production over the previous year keeping selling prices very close to the cost. Buyers should be careful while dealing with Chinese tea tree oil as according to the analysis conducted by the Australia Tea Tree Industry Association, many samples from this origin were adulterated.

🏠 USD 23.00 - 28.00 /kilo

WINTERGREEN OIL 🌐 China

Gaultheria procumbens

Supplies have stabilised after a short period of uncertainty; perhaps the only one product from the Yunnan Province where this is the case.

🏠 NA



HELICHRYSUM OIL 🌐 Croatia

Helichrysum angustifolium

With this crop, we have too much of a good thing. No wonder helichrysum essential oil is called "Gold of Croatia" because it is as valuable as gold, maybe even more. After all health is more valuable than wealth. The crop was good last year as a number of new plantation areas saw an upsurge in production. Currently enough quantities are available. However, quality is quite different and also there is a revival of demand. Prices are expected to soften over the coming months.

🏠 USD 1100.00 /kilo

LAVENDER DALMATIAN OIL 🌐 Croatia

Lavandula angustifolia x

The lavender essential oil produced in Croatia has a light, refreshing, crisp aroma different from other modern day lavenders. This hybrid lavender is more reminiscent of traditional lavender notes, somewhat more camphorous with pine notes. There are some plantations in the Dalmatian area but there continues to be a significant amount of wild harvested material available in the market, which makes for a great story. Dalmatian oil is thought to be different due to its growing environment. High quality soil, a temperate climate, and the steep rocky slopes along the coast, gives this lavender different characteristics. A major selling point in the fragrance markets is its cost. The price of Dalmatian lavender has always hovered somewhere between the costs of lavandin and other European lavenders. The crop harvest was lower than usual and prices did increase. However, it is too early to comment about this year's crop. It is also considered that due to its natural composition, Croatian lavender acts as a more powerful antiseptic than other lavenders.

🏠 USD 70.00 /kilo



BASIL OIL LINALOOL

Ocimum basilicum L

Last year's harvest started in early August and finished in October. During 2016, there was a deficit in supply in the market. As a result, prices rose dramatically in early 2017. The high prices are due to farmers' unrealistic price expectations for their oils. For this oil there appears good availability in the market but a high price range.

📈 NA

BLUE CHAMOMILE OIL

Chamomilla recutita L.

Seeds are planted after summer and the distillation occurs around March. Growing conditions for blue chamomile oil are favourable, and the projected harvest yield is the same as last year's crop. This year's quality crop is good and the price is stable at the moment. Overall demand appears to be stable.

📈 USD 638.00 /kilo



CORIANDER HERB OIL

Coriandrum sativum L.

The market in 2017 remained robust, as there was carryover of stock from last year; obviously there were no problems with supply. When compared with other origins the prices of Egyptian quality remain on the higher side, but some clients preferred to pay the premium for this grade.

📈 USD 182.00 /kilo



CUMIN SEED OIL

Cuminum cyminum

After the 2017 harvest demand and supply appear well balanced and prices remain stable. The crop will begin a new season in May 2018.

📈 USD 130.00 /kilo





GERANIUM OIL

Pelargonium graveolens

As per previous reports, there appeared no way to predict the market prices for this product as the material seems to defy all supply and demand patterns, and at times has its own external influences. But in 2018, after the end of year vacation, price appears to be at attractive levels.

There are several reports indicating that China is buying Egyptian oil to supplement their own production, which is turning into a real business opportunity.

📈 USD 94.00 /kilo

MARJORAM OIL

Origanum majorana

We observe marjoram oil prices to be at steady levels; also supply remains stable in the market.

📈 USD 72.00 /kilo

JASMINE ABSOLUTE

Jasminum grandiflorum L.

There was a bumper crop in 2016 leading to a crop surplus still existing before the start of 2017 season. As a result, the markets were brought back into line after the 2017 harvest as producers purchased smaller amounts of flowers to produce a lower quantity of oil. Currently, the market is stable. There are few stocks at origin but probably just enough until the next season in June 2018; which will keep the general market satisfied.

The growing conditions are favourable and it is expected to be a good crop.

📈 USD 3240.00 /kilo

PARSLEY LEAF OIL

Petroselinum crispum

Last year the market stagnated with little production and interest to go with it. Despite this, small volumes available at origin helped appease the general market sentiment.

📈 USD 175.00 /kilo



CLARY SAGE OIL 🇫🇷 France

Salvia sclarea

There has been a significant growth in production as French producers have been investing heavily to expand their clary sage growing areas. There is now an estimated figure of around 2,000 hectares of clary sage plantation in the areas near Provence. The markets have absorbed increased volumes, thereby prompting prices to shoot up. Production estimates for 2018 peg the figures at similar volumes to those of 2017.

📈 Euro 125.00 /kilo

HELICHRYSUM OIL 🇫🇷 France

Helichrysum angustifolia

The production figures in 2017 reached almost 500 kg, a marked increase on the 200 kg in 2016 and 80 kg in 2015. Both Croatia and France would claim that their oils are better than the other one. As both are key growing areas, the production figures are inching up; and this may soften the price of the oils. With the growing demand in aromatherapy and given the cost of production, due to small yields, producers will be reluctant to see prices slide.

📈 Euro 1750.00 /kilo

LAVANDIN GROSSO OIL 🇫🇷 France

Lavandula Officinalis

2017 experienced a sudden drought that damaged trees and adversely impacted production. The season in 2018 has to start with the replanting of the seeds that need to be established in many of the affected areas. Fortunately, winter has been wet and this has helped new plantations. As there is no carryover of stocks in 2018, traders look to make higher margins on the reduced volumes from their last year allocations. Since demand is very high for this product, prices would certainly firm up.

📈 Euro 35.00 /kilo

CORIANDER SEED OIL 🇫🇷 France

Coriandrum sativum L.

Continued investments in new plantations have resulted in the expansion of growing areas, increasing to 200 hectares in 2017. In 2018, this figure is estimated to reach 300 hectares. It has not made a significant dent in the oil volumes; however it has sparked interest from end users looking for an alternative source for their coriander needs.

📈 Euro 85.00 /kilo

LAVANDIN ABRIALIS OIL 🇫🇷 France

Lavandula hybrida abrialis

2017 recorded production of around 15 MT; the output is declining on a yearly basis with only 700 hectares of plantation remaining. There is little material currently remaining in the market but there is also little demand; since most end users have now turned to reformulations to ensure that their product is not at the mercy of an oil facing extinction.

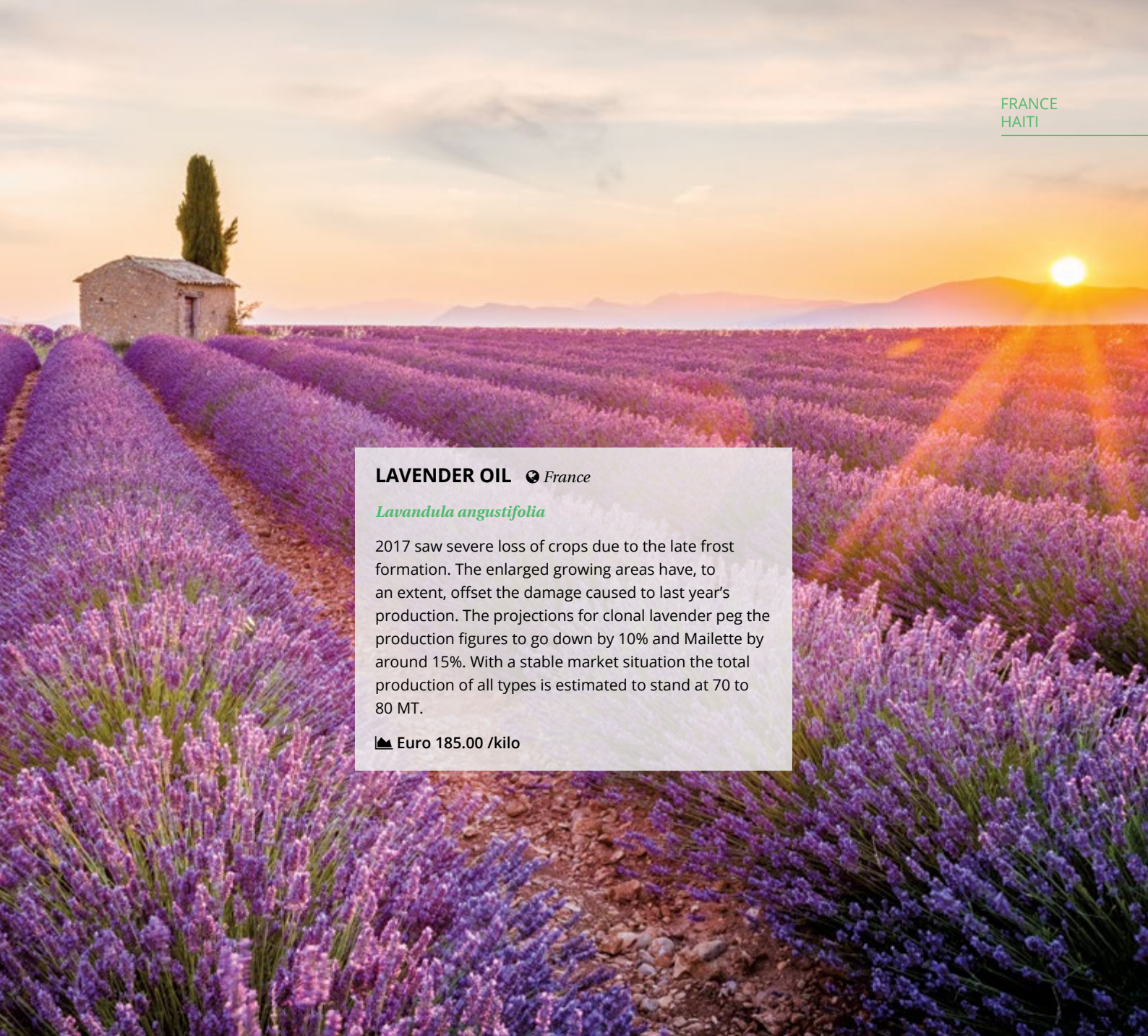
📈 Euro 45.00 /kilo

LAVANDIN SUPER OIL 🇫🇷 France

Lavandula hybrida

This segment has witnessed continued year to year decline, from 30 MT in 2016 to 25 MT in 2017. The droughts that have hit the cultivating areas since spring have had a detrimental impact on crop and production. This has led users to look for other lavandin origins such as Spain.

📈 Euro 50.00 /kilo

**LAVENDER OIL** 🌍 France*Lavandula angustifolia*

2017 saw severe loss of crops due to the late frost formation. The enlarged growing areas have, to an extent, offset the damage caused to last year's production. The projections for clonal lavender peg the production figures to go down by 10% and Maillette by around 15%. With a stable market situation the total production of all types is estimated to stand at 70 to 80 MT.

📈 Euro 185.00 /kilo

AMYRIS OIL 🌍 Haiti*Amyris balsamifera*

Total production is rapidly increasing as there is a sufficient amount of raw material available and there will be no shortage in the coming months. Overall demand has increased over the last 6 months. There has been stability in oil for the last two months with an increase in demand expected in the near future. The major areas of concern are high fuel prices, which are affecting production and also shipping costs, which have almost doubled in the last few months.

📈 USD 65.00 /kilo

VETIVER OIL 🌍 Haiti*Vetiveria zizanioides*

Production has been badly affected due to heavy rains and floods in Haiti. Vetiver oil is always in demand but due to adverse weather conditions there is a scarcity of raw material and there was nil production in the last two months. A major concern is that vetiver's popularity and resultant high demand could lead to a hike in raw material prices. This in turn would impact the cost of production and subsequently the market price. High fuel and freight charges have impacted the selling price. Shipping costs have almost doubled over the last two months.


📈 USD 420.00 /kilo



CORNMINT OIL

Mentha arvensis

The year 2018 opened with almost nil carryover of stock from last year since total production and carryover supplies just balanced out the current demand. This has caused prices to surge at the beginning of 2018. However, expectations from the origin are positive as prices are expected to be lower at the time of the new crop in June/July 2018.

 USD 22.00/kilo

DAVANA OIL

Artemisia Pallens

The year 2016 remained unstable with only 4 MT oil available after harvest. However in 2017, production was significantly better with a reported 7 MT oil available after harvest; an increase of 3 MT from last year continuing varying qualities and prices. The crop season of year 2018 will begin in March.

 USD 425.00/kilo

JASMINE GRANDIFOLIUM

Jasminum grandiflorum 

Year 2017 witnessed a decline in production by around 10-15% due to inadequate rains in the main producing areas. This has impacted prices, which have escalated by similar margins. But moving on, the year 2018 may put further pressure on prices with little carryover stocks thought to be available.

 USD 2965.00/kilo



JASMINE SAMBAC 📍 India

Jasminum sambac

Last year in 2017 there was a buildup in production by 10%; and due to high domestic demand flower prices have also risen by similar margins. 2018 brings an apprehension of paying more, as there is little stock at origin and the next season not starting until April.

📈 USD 3140.00/kilo



LEMONGRASS OIL 📍 India

Cymbopogon flexuosus

2017 was a balanced market with no shortage in supply. On the other hand, neither was there any surplus stock to ease prices. Supplies continue to remain thin; thereby leading to expectations of a price rise in the early part of 2018. It seems parties involved with oil find it difficult to give a clear picture as to how volatile the market is.

📈 USD 28.00/kilo



PALMAROSA OIL 📍 India

Cymbopogon winterianus

The 2017 crop yielded poor results due to disruption of the harvest owing to excessive rainfall. As a consequence, 2018 is expected to begin with a challenge. The supply situation is rather discouraging since the 2016 crop was short for some time and the 2017 crop did not deliver any carryover stock. The same can be said for year 2018; prices are projected to remain constant with the next crop still some time away.

📈 USD 60.00 - 65.00 /kilo



BLACK PEPPER OIL 📍 India

Piper nigrum L.

The new season for the crop starts in January. The market showed a strong balance in supplies and prices, which are expected to remain stable at today's current levels.

📈 USD 81.00/kilo



SPEARMINT OIL 📍 India

Mentha spicata

The crop's new season in 2018 is expected to begin by June and prices are projected to fall with the arrival of the new crop. 2017 witnessed a 40% decrease in planting, following a pattern similar to all other mints. The current demand remains unwavering with sufficient crop availability to meet demand.

📈 USD 52.00 /kilo



PEPPERMINT OIL 📍 India

Mentha piperita

Year 2017 saw a slump of 70% in planting compared with 2016; that is 300 MT less oil in real terms. Farmers achieved a better return on their crops so it could encourage more planting in year 2018; however there are no reports of extra planting initiatives. June 2018 will usher in the new crop season to herald a much-awaited drop in prices. Current demand is good and with sufficient supplies in the market, prices are stable. However the pure grade is limited; there is a lot of poor quality material with mixed pricing circulating in the market in recent weeks. Our advice is to be wary of what you are buying.

📈 USD 28.00/kilo



CAJEPUT OIL Indonesia

Melaleuca cajuputi

The Cajeput market has most recently been affected by the fluctuation in supplies of Eucalyptus. Consumer brands (e.g. Eagle Brand in Indonesia) that typically have a large requirement for Eucalyptus oil have turned towards Cajeput as an alternative. This sudden focus on Cajeput has led to increased demand, and also a sudden increase in prices.

 USD 31.00 /kilo



CANANGA OIL Indonesia

Cananga odorata

Adverse weather conditions due to heavy rain and strong winds in the cultivation region have badly affected the harvest in December 2017 and January 2018. However, market demand continues to remain steady.

 USD 140.00 /kilo



CITRONELLA OIL Indonesia

Cymbopogon winteranus

The demand for citronella oil is high, and supplies are somewhat constrained due to multiple factors, including a large local demand for use of the oil in insecticide formulations and cleaning solutions, as well as citronella derivatives for export. Prices remain firm and we predict that the price will continue trending upwards until new sources are established. There are several qualities floating in the market (with variations in composition of citronellol, geraniol, etc.) so buyers are advised not to make decisions based solely on the prices being offered, and take samples to better evaluate what they may be looking at.

 USD 31.00 /kilo



CLOVE OIL 🌐 Indonesia

Eugenia caryophyllate

With an improvement in weather conditions and sporadic rain, prices are stabilising in the current scenario. Supplies are beginning to ease out, with farmers and distillers turning to clove leaves as the supply of clove buds and clove stems has reduced. Demand remains strong, and as we hit a sustained period of dry weather we see prices improving. Also we do not expect them to go down to the late 2016 / early 2017 levels anytime soon as the same weather conditions do not prevail.

🏠 USD 22.00 - 30.00 /kilo



GINGER OIL FRESH 🌐 Indonesia

Zingiber officinale

Ginger oil has strong demand from the market and prices continue to remain firm. Due to many variations coming from different parts of Indonesia, there is an ongoing concern regarding quality, since many of them have low zingiberene content. The processes to bring material up to a standard are available at high cost.

🏠 USD 125.00 /kilo



MASSOIA BARK OIL 🌐 Indonesia

Cryptocaria massoia

2018 is going to be an interesting year for massoia bark and its derivatives. We anticipate new producers entering the market with newer and more efficient technologies that will result in a better product overall, which will be priced more competitively. The market is set to witness a lot of action; and dynamics are bound to change.

🏠 USD 400.00 - 700.00 /kilo

NUTMEG OIL 🌐 Indonesia

Myristica fragrans Houtt.

With the end of the harvest season price tends to move upwards. Also available stocks seem to be limited, and we would recommend that those with a secure consumption of nutmeg oil book their requirements soon.

🏠 USD 70.00 /kilo

PATCHOULI OIL 🌐 Indonesia

Pogostemon cablin

Sulawesi: The March prices of patchouli are a little higher than February rates. While the new harvest has somewhat eased supplies; prices still remain firm because the drying and farm level distillation have been affected by frequent rains. Some producing areas in Central and South East Sulawesi are also currently experiencing damaging floods. Prices remain firm prompted by a healthy demand.

Sumatra: The market is unwavering in terms of no new demand. Consequently, supply sources and prices also remain unchanged. There is a compelling shift in attention to the relatively lower priced Patchouli Sulawesi; as a result we foresee a significant decline in Patchouli Sumatra production in 2018.

🏠 USD 40.00 - 55.00 /kilo

VETIVER OIL 🌐 Indonesia

Vetiveria zizanioides

Vetiver prices are steadily rising. Currently, there are several grades of oil in the market, distinguished mainly by the acid value variations. Lack of communication and complexity of cultivation are the biggest hurdles in the wide scale adoption of vetiver. Garut retains its position as the foremost vetiver-yielding region, even though some cooperatives in regions in and around Java have begun to cultivate it. Prices of vetiver oil vary significantly due to differential pricing offered by exporters. We recommend that you evaluate samples prior to making a decision solely based on price. The total production volumes of vetiver are expected to remain low in the first half of 2018.

🏠 USD 490.00 /kilo

BOTTLED BOUNTIES FROM INDONESIA NATURE'S AROMATIC TREASURES

Aayush Tekriwal

Organic agriculture is an entire cropping ecosystem that relies on natural substances and complex farming techniques without using chemicals. Having been a vital contributor to the industry for over a decade, we take this opportunity to share our experiences with a focus on Indonesian essential oils.

GO ORGANIC, GROW ORGANIC

The United States Department of Agriculture (USDA) postulates that the goal of organic farming is to *"integrate cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity."* A seal of "USDA Organic" or "Certified Organic" implies that the item must have an ingredients list and the contents should be 95% or more certified organic. In addition, it must be free of synthetic additives like pesticides, and chemical fertilisers, and must not be processed using industrial solvents or genetic engineering.

According to the most comprehensive scientific analyses, organic food has more antioxidant compounds and lower levels of pesticides than regular food. Sure, organic foods will put you back by a pretty penny; however the benefit is that you put fewer synthetic chemicals into your system. Another moot point is that organic farming does not involve the use of synthetic chemicals that are harmful to the environment. Practising organic agriculture involves several other aspects but the above two points are the key considerations why most people choose to go organic.

ORGANIC ESSENTIAL OILS: AN INDONESIAN PERSPECTIVE

In the essential oil industry, most of what is prevalent are pesticide-free essential oils that are not certified as 'Organic.' However, it is a misconception that these are of poor quality. It is important to note that many essential oils that are not labelled 'Organic' are often of fine grade, superior quality, and meet the stringent purity parameters. Having been in the industry for so long and today, enjoying a position of leadership in Indonesian Natural Essential Oils and Derivatives, the subject of organic agriculture is of keen interest to us. With reference to manufacturing standards, there are numerous regulatory requirements which offer good value and purity; and thus many times the label of 'Organic' offers no value-addition. Let us look at some specific offerings from Indonesia which will help explain the point.

CLOVE OIL

Clove bud oil is derived from the clove tree, a member of the Myrtaceae family. The intrinsic mechanism of the clove tree plantations deter insects and diseases, hence, these plantations do not require maintenance via the use of chemicals while cultivating. These inherent qualities make it naturally organic; it is highly unlikely that any clove oil contains high PPM levels of pesticides, or insecticides. In the occasional case, tests may reveal slight traces but that would be due to their use in abutting farms.

It's use: Clove oils work wonders as antiseptics when applied topically to wounds and cuts. It is also extensively used in toothpastes, mouth washes, and other medicines. It acts as a digestive aid; and is effective for arresting nausea and vomiting. Clove bud oil is also used to help ease respiratory problems such as cough, colds, sinusitis, asthma and tuberculosis. With its strong and unique aroma, it is also used as a perfume ingredient.

CITRONELLA OIL

In Sulawesi, citronella harvest is undertaken on a large scale since it is the most self-sustaining and low maintenance grass. Local Indonesian farmers who harvest and process finely chopped fresh, dried or part-dried grass through steam distillation, reveal that 99.9% of citronella oil fulfills the criteria of being organic. So next time you purchase a bottle of citronella oil, check the label. For anyone claiming to sell "Organic Citronella oil" is charging an extra fee only for the 'Organic' label.

It's use: Citronella oil is used as an insecticide, fungicide and mosquito repellent by itself.

CINNAMON AND MASSOIA OILS

Cinnamon oil and Massoia Bark oil are obtained from the tree barks that do not require synthetic chemicals for maintenance. Anyone claiming to sell "Organic Massoia Bark Oil" or "Organic Cinnamon Oil" is nothing but an added extra fee for the label.

SANDALWOOD OIL

Sandalwood oil is obtained from the forests of Eastern Indonesia. As it is antiviral and antiseptic by nature, it is widely used in aromatherapy and wellness practices to ease stress or tension.

It's use: A popular antidote for dry, damaged or irritated skin, sandalwood oil is a key ingredient in the cosmetic industry. The vapour from the oil is believed to help ease congestion and colds.

CAJEPUT OIL

Cajeput essential oil is extracted by steam distillation from the twigs and leaves of the Cajeput tree, *Melaleuca Cajuputi*.

It's use: A potent cure for bacterial, viral and fungal infections, cajeput is used to treat clinical conditions like tetanus and influenza. Its powerful carminative properties make it an effective remedy for gastric trouble; and a vital component as a skin-brightening agent in cosmetics and antiseptic creams.



Holding a foremost position in the essential oil industry, one frequently asked question is, have we considered getting our products certified as ‘Organic?’

Our answer to this is in the negative. Using natural, wild crafted ingredients, we provide the best of nature’s bounty in its unadulterated form. The absence (or presence) of the ‘Organic’ label does not affect the quality benefits of our product. The certification entails additional costs which we feel are unnecessary; and we strongly deem it against ethics to pass on this extra cost to our customers. We know that when essential oils used in aromatherapy are altered by artificial means, they lose their essence.

Being one of the leading producers of Indonesian naturals, our focus is on moving closer to the source. This is where our expertise lies. For the long term, we believe that it will be those with a better grip on the grass root level of these natural products that will hold a value proposition in the naturals industry.

What drives our conviction is our own stringent quality testing standards; thus establishing our own set of parameters. Organic certification is an increasing trend; however we believe in going beyond a label. Backed by intensive research, we ensure that our raw materials are of the highest quality. We constantly strive to achieve our goal of “Soil to Oil Traceability” where we share in-depth information about the origin and detailed analysis of the oil constituents with our customers. We are convinced we can win the unwavering trust of our customers by sharing information about the botanical to the bottle journey. We believe you’re unlikely to trust us more because of a label, but with our commitment to transparency.

Having shared our thoughts, we invite you for a firsthand experience at the farm level as we work to develop sustainable sources of patchouli and citronella through our sustainability projects in Indonesia. These projects exemplify our long term commitment to be truly organic. We will be very happy to schedule a visit to one of our projects in Indonesia. Please feel free to email us at info@vanaroma.com.



**WE DO NOT INHERIT
THE EARTH
FROM OUR ANCESTORS
WE BORROW IT
FROM OUR CHILDREN**

- Native American Proverb

Van Aroma has partnered with precisely 125 partner farmers to cultivate an area of 300 hectares in the South East Sulawesi region of Indonesia to develop a completely new, sustainable and traceable source of Citronella oil that will allow our customers to obtain a stable product with a stable price and supply.

BERGAMOT OIL 🇮🇹 Italy

Citrus bergamia

The new crop started in November last year and it seems to be slightly better compared to the last crop. However, for a few years, bergamots have also been sold into the fresh fruit market. This has pushed up the prices of the fruits, which were generally used only for processing purposes and not sold to the fresh fruit market. The very high prices for the fruits are pushing more fruit to the fresh fruit market. As a result, with very little fruit for processing, the price for the oil is extremely high.

🏔️ EURO 250.00 / kilo

LEMON OIL 🇮🇹 Italy

Citrus limon L. Burm. F.

The season is in full swing, but lemon harvesting is proceeding slowly. Due to the hike in fruit prices many processors are facing greater financial difficulties and tension. Prices are likely to increase and probably remain at higher levels through the year. All crops are suffering from last summer's drought leading to a decline in production. There is still a lack of sufficient rain. There is an effort to recover the low volume processed in the previous period.

🏔️ EURO 36.00 / kilo

ORANGE BLOOD OIL 🇮🇹 Italy

Citrus sinensis

This season is one of the better ones in recent years. The crop is available in good quantity and at reasonable prices. Though the orange fruit is small, the quality of the juice and the oil is reported to be fine. The long drought period during last summer has affected the crop, and a lack of rain is still reported, leading to slower than expected production.

🏔️ EURO 11.00 / kilo

MANDARIN OIL 🇮🇹 Italy

Citrus reticulata

This year, availability of green mandarin oil from different origins is overshadowed by the restricted supply of top quality red mandarin oil. This is confirmed by Sicilian producers, who are reporting a smaller crop in 2018 compared to 2017. The new crop has already taken place with the production of yellow and green mandarin oil. The crop is continuing with the production of red mandarin oil and overall is more or less comparable to the previous season, therefore prices are stable.

🏔️ EURO 70.00 - 90.00 / kilo

Photos Lukas Aufschlager



THE GATEWAY TO GLOBAL TALENT



Inspiration realised
with leadership, diversity, and confidence
to optimise every potential



HEALING WITH HINOKI THE MIRACLE SCENT

Michael Zviely, PhD CIC, Israel

In Japan the Hinoki is not just a tree. Revered for its timber, decorative foliage, therapeutic benefits of the essential oil, and as a spiritual symbol, Hinoki is an institution.

A Japanese Cypress, Hinoki, means “white cedar.” A different connotation is “fire tree” as it is still utilised to make fire through friction in traditional Shinto shrines. The term ‘cypress’ comes from Greek “*sempervivens*” meaning “live forever.”

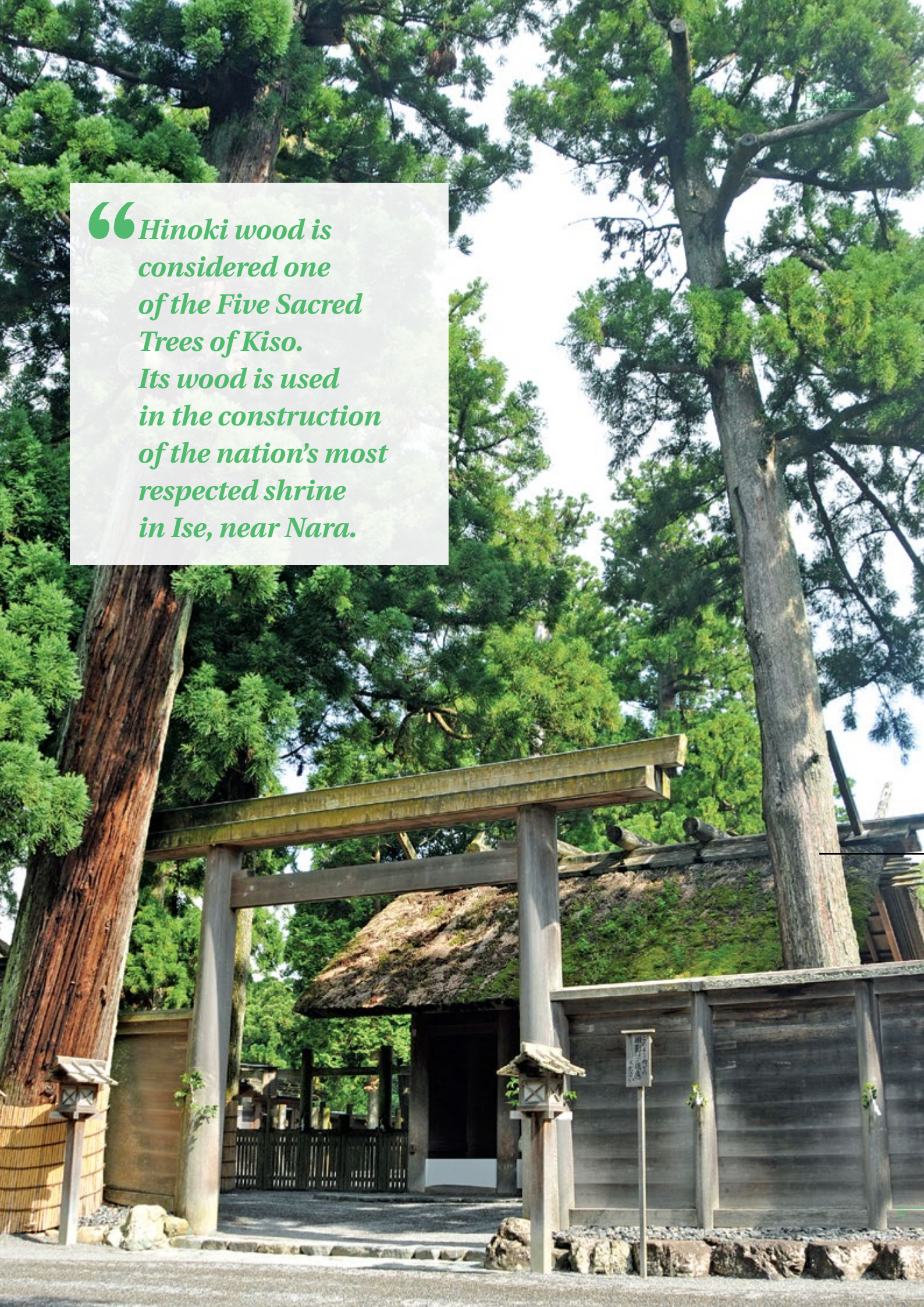
A tall, slow-growing tree in central Japan, the Hinoki can grow as tall as 35 metres with a trunk up to 1 metre in diameter. The trunk has pointed tips right up to its bright green leaves, small cones and yields valuable timber. It is widely spread in most of the forests in the country, popularly referred to as the ‘Divine or the Sun Tree.’ Akin to the sun, the Sun Tree is a symbol of divine power and makes up the very foundation of ancient Japanese history. Hinoki wood is considered one of the Five Sacred Trees of Kiso. Its wood is used in the construction of the nation’s most respected shrine in Ise, near Nara. In fact, Japanese ruling dynasties have always preferred Hinoki wood as the material of choice for the construction of their resplendent monuments and holy memorials.

Hinoki wood, highly resistant to decay, is held in high esteem in Japan. Over centuries, wood from the Hinoki tree has been used for building palaces, temples, religious shrines, bathtubs, table tennis blades, and the *masu*, an indigenous square wooden box used to measure rice. The wood from the Hinoki tree also finds expression in affordable home decor items, cooking utensils, bath accessories as well as precious craftwork, widely available across the country.

Hinoki wood is lemon-scented, light pinkish-brown, with a rich, straight grain, and is highly rot-resistant. Its smooth, woody aroma with spicy and citrusy overtones makes it a favourite ingredient in the perfume industry. The fragrance of Hinoki oil has a universal, unisex appeal. Hinoki wood essential oil in perfumery



“Hinoki wood is considered one of the Five Sacred Trees of Kiso. Its wood is used in the construction of the nation’s most respected shrine in Ise, near Nara.”





adds an interesting sweet, woody top/middle note in Oriental and Woody accords. Naturally, it has become a much-sought after and rather critical constituent for the niche perfume industry.

Another species called the “dwarf Hinoki” is often cultivated as bonsai or grown in gardens as a beautiful décor element; commanding considerable presence among bonsai artists.

Considered supremely sacred, Hinoki is highly treasured by the Japanese; the forest groves are zealously protected since the times of the feudal lords and samurai and are environmentally protected by the authorities today.

What really brings out the richness of Hinoki is the myriad different therapeutic benefits derived from its essential oil.

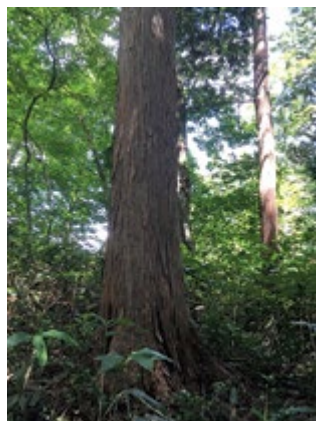
Since time immemorial in Japan, Hinoki oil has been associated with purity and healing. The traditional Shinrin-yoku Forest Therapy or Forest Bathing has effectively harnessed the strong aromatic influences of Hinoki as a cornerstone of preventive healthcare and healing.

Hinoki yields three kinds of essential oils: The freshest is from the leaves of the tree; Oil from the branch and leaf retains its freshness but with a hint of spiciness; And finally, the oil that is extracted from the timber, exuding a woody, earthy scent.

A relaxant and decongestant, Hinoki oil is excellent for the relief of blocked noses, respiratory ailments like asthma; and congestion of the sinuses and chest.

Medicinally, Hinoki oil is extremely effective in controlling dandruff and promotes hair growth. A massage with quality Hinoki oil stimulates the blood circulation to the scalp. This ensures better nutrition and oxygen to the hair follicles, thereby being an effective remedy for stimulating hair growth.

Hinoki essential oil can be used for a variety of different practical things in and around the home. Hinoki wood essential oil from the *Chamaecyparis obtusa* tree of Japan has the remarkable ability to naturally kill bacteria, viruses, and fungus. Hinoki is known for its antibacterial and antiviral properties,



*Photo left page
Hinoki bonsai*

*Photo top left
Hinoki from Shinjo village, Okayama. Here the trees are sustainably managed.*

*Photo top centre
Hinoki has a deep relaxing and refreshing aroma that exudes a feeling of "Shinrin-yoku," meaning, "taking in the forest atmosphere".*

*Photo top right
Hinoki LAB closely works with local people, creating a positive atmosphere. Together, they have been involved with the socioeconomic impact of Hinoki oil production since 2003.*

*Photo bottom
Hinoki has bright green leaves through the year. However, the greenest parts of the plant are hand picked for extracting Hinoki Shinjo Oil.*



which can help destroy the *Malassezia* fungus, viruses and viral infections. Hinoki oil is regarded as being gentle on skin and an excellent addition in bath and body skin care products. The extra benefit of this oil for skin care as an effective antiseptic, antifungal and antiviral actions is noted for treating rashes, cuts, abrasions and minor skin irritations. Having a good and healthy skin is something we all strive hard for, and features on everyone's secret wish list. Adding a few drops of Hinoki essential oil to your daily lotion or bath can help achieve that baby-soft skin. However, a word of caution here. When adding essential oils to lotions, be sure to store it in a glass bottle to minimise chemical degradation.

Also adding 4-5 drops of Hinoki oil to a hardwood floor cleaner can prevent termites. Hinoki wood oil is generally obtained from remnants and wood shavings collected from construction sites.

Hinoki's palliative properties have earned it a permanent place in the Japanese forest bathing practice, in addition to widespread usage in aromatherapy as an effective stress-reliever and mood-lifter.

The oil is highly priced in comparison to some other essential oils, but worth the use in diffusers or oil burners. A few drops of

the magic essence soothes the senses, eases away stress and transports you into a dimension of serenity and is conducive to creating a tranquil atmosphere for meditation.

Hinoki's wonderfully enriching properties come from its constituent compounds. The oil is rich in d- α -Pinene, β -pinene, myrcene, d-limonene, dipentene, β -phellandrene, p-cymene, 1,8-cineole, camphor, l- α -terpineol, α -terpinyl acetate and bornyl acetate. Camphene, linalool and borneol have also been confirmed by gas-chromatographic tests. Extracted by the process of steam distillation of the wood, Hinoki blends well with a host of other essential oils like bergamot, frangipani, jasmine grand, lavender and citrus oils to be used in a multitude of applications. It is also a relatively harmless essence; however it would be advisable to be aware of the few safety precautions its usage entails.

Also popularly known as Hinoki wood essential oil, the versatility of Hinoki cannot be overstated. With its beautiful aroma, this is one of nature's miracle healers with immense potential for physical and emotional wellbeing.

CLOVE LEAF OIL 🌍 *Madagascar**Syzygium aromaticum*

The typhoon Ava hit the North East coast of Madagascar in January, leading to colossal infrastructural damage in Tamatave (Toamasina). Fortunately, vital areas for clove production were saved from the brunt of the storm; however, farmers now confront the mammoth problem of transportation to the port.

Harvesting and production has finally started and more than 80 percent of this seasons estimated production has been pre sold. We remain with very few offers in the market. Business has been closed between levels of Euro 15-16 /Kilo. We expect the market to remain firm going forward due to supply issues at other origins.

📈 EURO 16.00 - 18.00 / kilo



VANILLA

A COMPLEX INGREDIENT



Natural vanilla is one of the most complex of flavouring ingredients; not only in terms of growing and processing but also in terms of its complex flavour profile with over 250 flavour compounds. Moreover, there is sizeable market volatility arising from climatic, political and speculative activities, each of which can severely influence price and availability.

Vanilla is recognised as one of the world's favourite flavouring (and to a lesser extent, fragrance) ingredients. It has widespread uses in commercial and domestic baking, ice cream, beverages, confectionery, perfume manufacture and aromatherapy. One major F&F company estimates that 18,000 global products contain vanilla flavour.

Natural vanilla is available in various forms: whole beans, extracts, powder, paste and sugar, but rarely as an oil. Vanilla beans are available in a variety of grades depending on origin. Thus, vanilla grades from Madagascar, the dominant producer, include black gourmet beans, red split and whole vanilla beans, European grades and cuts; each having their own market and end users. In addition, there are organic, fair-traded and other forms of certified vanilla.

Most global demand for "vanilla flavour" is satisfied by much cheaper synthetic vanillin, usually obtained from wood pulp. Given the trend towards natural flavours, combined with very high natural vanilla prices, some companies are producing natural vanillin from sources other than vanilla beans, such as eugenol

from clove oil and ferulic acid from rice bran oil. Another expanding source of supply is through the use of vanillin bioconversion processes using raw materials such as yeast. The current high and unpredictable vanilla prices, is leading to the re-formulation of products and the development of "natural" and "nature identical" vanillin substitutes.

Natural vanilla originated in Mexico and was used by the Aztecs. During the past two centuries, production spread worldwide once it was discovered that hand pollination of the flower was required outside Mexico. The difficulty of growing and curing the green orchid to produce vanilla beans, involving substantial labour inputs, means that production is concentrated in low cost tropical countries.

Madagascar accounts for 60% to 80% of global production depending on its annual production. Papua New Guinea, Indonesia, Uganda, Tahiti, Reunion, Comoros, French Polynesia, Mexico and India account for the remainder. There has been talk recently of India becoming a larger producer but, as yet, this has not materialised.

The majority of the world's natural vanilla is produced by smallholders from the orchid *V. planifolia*, (also known as Bourbon vanilla). Vanilla vines take a long time to reach maturity, bearing fruit and flowers after 3/4 years. Yields peak after 7/8 years and vines are abandoned after 10/12 years. From flowering to harvesting is approximately 6/9 months. Thus production cannot easily adjust to market requirements. To develop the distinctive vanilla aroma, complex labour intensive processing is undertaken over a period of approximately 3 months involving blanching, sweating, drying, maturing, sorting and bundling. The classic processing ratio is 5:1. That is, about 5 kg of fresh green vanilla beans give 1 kg of cured bean. One kg of cured bean will have some 250 to 300+ beans, depending on size, and this number of flowers will have had to be hand pollinated, since each pollinated flower yields one green bean. However, the ratio of fresh to cured will rise if harvested immature – up to 7:1. Most of the processing is done locally and methods differ somewhat between origins. However, if not processed correctly then a lower quality product is produced. Curing is really critical alongside ensuring the green beans are fully matured when



harvested. When prices increase stealing beans is common leading to early picking and poor quality.

Considerable efforts have been made to modernise and standardise both growing and processing but, as yet, modern agro-technologies have either not been developed or have been unsuccessful. For example, in Madagascar some large collectors have vacuum packed partially cured beans to maintain moisture in anticipation of higher prices later in the year, but this practice can lower both quality and yields. Similarly, techniques for quick curing of green beans, as well as green bean extraction and fractionation, have been developed but the jury is still out on the benefits of these initiatives. Vanilla orchids are very sensitive to disease and this makes it very difficult to develop large-scale plantation production. This helps to ensure large supply/demand imbalances, as small farmers cannot adjust easily to market changes.

Quality is very much influenced by price and often inversely; the higher the price, the lower the quality and vice versa. This is because very high prices lead to early harvesting of immature beans along with

inadequate processing. The precursors of the key aroma compounds developed in the curing process only build up in the fresh bean in the last 1-2 month before maturity. So early harvesting leads to low levels of precursors, and the cured vanilla has little or no aroma, which is the critical quality parameter. Larger crops usually lead to lower prices, facilitating better production and processing and improved qualities. Ideal vanilla curing ratios would be 5 kg green to 1 kg cured but the ratio rises to 7.5 or 8 kg to 1 kg for very early harvested immature beans; thus substantially reducing vanilla bean quantities and encouraging further price increases.

PRICES

Madagascar's dominance of world vanilla supply means that prices are dominated by the pronounced crop cycles in Madagascar. Output from other countries is insufficient to counteract these cycles. In 1991, Madagascar and Comoros abandoned vanilla bean export quotas and the associated buffer stock system that had helped stabilise vanilla prices around USD \$75 /kg since the 1960s. Thereafter, stocks were liquidated and prices fell. The 2002/3

"perfect storm" of a poor crop combined with a cyclone led to prices rocketing to \$450 /kg, encouraging production expansion and substitution. So from 2004 to 2014 there was a period of excess supply and prices ranged from a low of \$30 to a high of \$80. From 2014 onwards, a combination of reduced production, falling stocks, increased demand, large crop pre-financing along with speculative activity, saw prices soar to \$225 in mid 2015 with further rises the following year. Further upward price pressure continued following Cyclone Enawo on March 7th 2017, the worst cyclone for 13 years. Prices escalated to \$600 /kg, following initial concerns of sizeable crop losses. Certainly a lot of Madagascar's premature green beans fell off the vines. However, prices stabilised or fell later in the year, as estimates of cyclone damage fell to an estimated 25 - 30% of the anticipated crop. Also new plantings coming onto the market were helping to stabilise prices. However, production shortfalls since 2015 have led to the liquidation of most carryover and many speculative stocks leading to further price rises and volatility. Another problem is the opaque nature of the vanilla market, with export trading being concentrated in a few powerful hands.



“ There are an estimated 60,000 vanilla farming families and hundreds of thousands of seasonal workers and this “green gold” is vital to the region and the country (Madagascar).

VANILLA PRODUCING REGIONS



SUPPLY

MADAGASCAR

Vanilla production is dominated by Madagascar, with production concentrated in the northeastern Sava region, where the best climatic growing conditions are combined with the availability of low cost labour. There are an estimated 60,000 vanilla farming families and hundreds of thousands of seasonal workers and this “green gold” is vital to the region and the country. However, the region’s susceptibility to climatic variations, including cyclones, can lead output to fluctuate considerably. Thus, in 2015 Madagascar’s production fell by a half to 1,100 MT, which, combined with the growth of demand, led prices to rise to \$225 /kg by mid 2015. An estimate of the 2016 crop suggested 1,300 - 1,500 MT including cyclone vanilla. Cyclone Enawo certainly had an impact on both production and quality, with the fallen immature green beans often being cured immediately.

The 2017 crop is an improvement on the previous year, with improved vanillin and aroma profile but there are still issues with early picking, inadequate curing and sub-standard qualities. Estimates suggest 2017 production of 1,300 MT - 1,500 MT but the exact level is difficult to estimate, in part because traders are still holding stocks in anticipation of expected price rises. Also, it would appear that rural communities in Madagascar have been more able to control the theft of green vanilla, despite the high prices, possibility in part because of the reduced demand for quick cured vanilla.

Despite the impact of losses from Cyclone Enawo, it appears that exports could have reached between 1300 - 1600 MT in 2017 compared with 1,100 MT in 2016.

Moreover, there is increasing optimism regarding the better harvesting and processing practices being adopted facilitating high quality production. Factors cited for the improvement include improved discipline among buyers, stronger government enforcement, reduced incentives to pick early and improved education programmes.

Initially, estimates for the 2018 crop were optimistic in part because young vines are beginning to produce beans. However, the last few months of 2017 saw unusually cool weather followed by unusually hot and dry conditions, which was not conducive to optimum flowering, making accurate crop levels difficult to predict.

INDONESIA

Until recently, Indonesia was considered the second largest vanilla bean producer, with Bali and South Java the primary production areas. Recently production has spread to Sulawesi, Sumatra, Lombok and Flores. 2017 production estimates vary widely between 80-150 MT but output is predicted to grow with increased plantings. However, some PNG vanilla is being offered as Indonesian vanilla, despite these origins having their own distinct characteristics. Indonesian production methods focus on quantity over quality with short cuts being used in harvesting, curing and drying. Indonesian vanilla has a sharper, woodier flavour than other varieties and usually sells at a lower price.

PAPUA NEW GUINEA (V. TAHITIENSIS)

Estimates of PNG's harvest in early 2018 suggest a good-sized crop of 200-250 MT but high prices are encouraging theft and early picking, which impacts quality. Indonesian dealers finance some PNG growers and collectors and the product is smuggled to Indonesia, which does not help PNG exporters. PNG produces *Tahitiensis* vanilla which now dominates the retail and institutional sector markets.

UGANDA

Uganda began vanilla production in the 1960s and has become an important producer, with production in some years having exceeded 150 MT. However, in recent years, there have been quality issues, in part related to early harvesting and poor processing. Efforts are being made to improve quality and yields, with government support. It is anticipated that production in 2018 could range between 50 – 75 MT maximum.

COMOROS

Production in 2017 was estimated between 30 - 40 MT but an aggressive government-supported growing campaign could see a substantial expansion of production, perhaps even reaching previous annual levels of 200 MT, assuming no substantial fall in prices.

Photos top and bottom left

Uganda: Vanilla flower and orchid vine. Steve Caiger.



Photos top and bottom right

Madagascar: Drying and sorting cured vanilla beans. Steve Caiger.



DEMAND

In normal years, global consumption of natural vanilla is estimated at 2,000 – 2,500 MT. Over the past few years, despite the price hikes, the demand for vanilla beans has witnessed something of a renaissance. In part, this is due to consumers' increasing preference for natural food and beverages. In 2015, a number of large food brands, such as Nestlé, Kellogg's, General Mills and Hershey vowed to use only natural flavours and remove artificial ingredients from the products marketed in the USA. This coincided with the substantial downturn in natural vanilla production leading to a dramatic price hike. Food makers, flavour houses and other vanilla users faced a variety of challenges regarding product reformulation, labelling and defining what is "natural". Despite the record high prices, demand for some vanilla grades remains strong and enough to support the current high prices. Thus, in the USA, for many foods and particularly ice cream, when a product is labelled vanilla, only real vanilla extract can be used and WONF (with other natural flavours) has limited usage. This means it is very hard for some food categories to utilise flavour technology solutions to reduce cost fluctuations. This keeps demand high even when prices increase.

SUSTAINABILITY

Over the past decade, vanilla has been at the vanguard of efforts to achieve "sustainable" production. Several large F&F companies, including Firmenich, Symrise, Givaudan, Mane and IFF, along with NGOs and some government agencies are leading efforts to achieve sustainable vanilla production and prevent future vanilla crises. The main programmes aim to help smallholders maintain consistent quality and a sustainable supply, through a range of programmes to improve soil fertility, planting of alternative crops alongside vanilla vines, sponsoring education, health care and food programmes. In addition, various certification programmes (e.g. organic, fairtrade, Rainforest Alliance) are aimed at increasing smallholder incomes.

SOME CONCLUDING REMARKS

The future of vanilla is, and will continue to be, unpredictable. Imprecise supply and demand signals, wide stock fluctuations and the threat of product reformulation and substitute materials all help to create a fragile market with lots of risk. These are difficult days for natural vanilla as the industry attempts to recover from the current crisis, and almost everyone is hoping for an easing of prices. Barring climatic or political catastrophes the current high price cycle should be coming to an end. All major origins are endeavouring to expand production, while the high prices in the last 3 years have reduced consumption, some arguing by as much as 30%. Accurate data are difficult to obtain. However, given these factors – and assuming no major catastrophe – then 2018 should see downward price pressure, but the scale of the downturn is difficult to predict.

Unless fundamental changes are made then the extreme cycles in vanilla supply and prices are likely to continue. Perhaps agronomic and scientific advances and innovations, such as genetic markers to improve vanilla orchid varieties, with improved yields, flavour and disease resistance will facilitate the growth of sustainable vanilla production. Biotech innovations may facilitate increased production of natural vanillin. Cooperative processing with improved technology might also assist. Meanwhile, the high prices of recent years have encouraged efforts to substantially increase production, while these high prices have encouraged a fall in consumption, facilitated by product reformulations and the search for vanillin alternatives.

Will prices ever return to pre-2012 levels of about \$25 per kg? Vanilla's notorious price cycles suggest that prices might eventually fall substantially, but it remains highly unlikely that prices will fall in the near term. Previous experience shows that when the market crashes, prices will fall significantly. Until then prices could remain high for some time as it is very hard to grow supply much. However, past experience illustrates that once the new supplies grow strong, then price will fall dramatically. In the meantime users need to carefully manage stocks. As one source commented *"Vanilla remains a very volatile, and dangerous market and customers should continue to cover their requirements", while another said, "proceed with extreme caution and minimise any long-term exposure to the market"*.

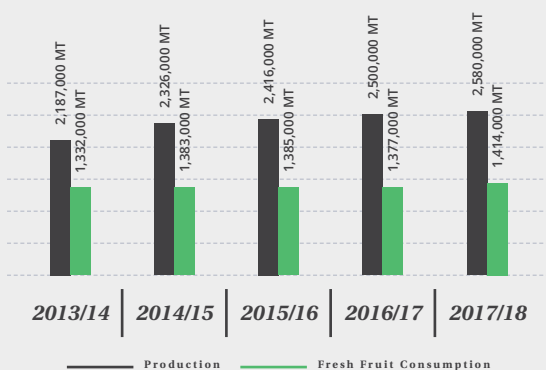
LIME OIL 🌐 Mexico
Citrus aurantifolia

There has been an increase in lime plantations across Mexico, but we estimate that the lack of raw material for processing will last about 2-3 years before the situation balances out. 2017 was a normal year for the lime crop with 2.4 million MT of key lime harvested and 1.5 million tons of Persian limes. However, the fresh fruit market is very active, taking an estimated 92% of the crop. Tonnage available for processing has fallen from 500,000 MT in 2017 to an estimated 300,000 MT in 2018.

The eastern side of Mexico is currently experiencing colder temperatures than usual. Although it is still too early to confirm any damage on the trees, it is a situation being monitored daily, with some possible damage to the Persian lime crop being expected this year. Demand for juice remains steady, causing prices to firm up for new contracted volumes. There have also been more applications for acidifying purposes. The demand for lime oil fell in 2017 as some major users reset their stock levels, enabling prices to stabilise. However, oil demand is expected to grow in 2018.

📈 USD 36.00 /kilo

MEXICO - ESTIMATED PRODUCTION AND FRESH FRUIT CONSUMPTION OF LIME



ORANGE OIL 🌐 Mexico
Citrus sinensis

The fresh fruit market for domestic consumption is the first option for the growers, and it has been very active, but there are some recent investments made to increase juice and oil production. The orange campaign runs from November to October. Hurricanes Katia and Franklin ravaged Mexico's growing regions, and have decreased orange volumes by 15% to 20%. Forecast orange production is expected to be about 4.6 million MT, which is the same as the last crop, and about 1.7 million MT is expected to be processed.

Mexico is becoming a larger player in the global world of orange even though 80% of all fruit grown here goes to the fresh market.

📈 USD 10.00 /kilo

BASIL OIL LINALOOL 🌐 Nepal
Ocimum basilicum L

There was no carryover supply leading to persistent pressure on the market. This year, the crop season started in February with very limited local supplies. The floods in the Terai plains had a harsh impact on crop yields. Demand has increased for the isolation of natural linalool following the issues faced with the lavender supply adding immense additional burden on the market situation.

📈 USD 15.00 /kilo

BLUE CHAMOMILE OIL 🌐 Nepal
Matricaria chamomilla L.

The 2017 crop production was slightly above average at around 1000 kilo. This year the crop season started in February with limited local supplies.

📈 USD 785.00 /kilo



MANUKA OIL 🌐 *New Zealand*
Leptospermum scoparium

Demand shows a significant increase as new applications and aromatherapy brands are entering the market. There is pressure on the supply chain as surplus stock, which has been accumulated to support growth, has been deleted in recent months. Once the success of other brands and new products is realised and copied by others the demand is expected to go up. Despite few minor supply delays, activities in New Zealand should help support this growth long term.

📈 AUD 750.00 /kilo



CABREUVA OIL 🌐 *Paraguay*
Myrcarpus frondosus

Year 2017 witnessed problems with overall supplies in the market. In the months when demand is low there is not much of a challenge; but in other months when demand peaks there is almost a crisis. Unlike last year, which faced supply issues, we are optimistic about a balanced market in 2018.

📈 USD 50.00 /kilo



GUAIACWOOD OIL 🌐 *Paraguay*
Bulnesia Sarmientoi

The market showed a healthy balance after a good season, which also saw continued production with sufficient availability of good stocks. However CITES regulations, expected to come into effect during the first half of 2018, are likely to constrain supplies and put upward pressure on prices.

📈 USD 26.50 /kilo



PETITGRAIN OIL 🌐 *Paraguay*
Citrus aurantium ssp.

In 2017 the lack of stock in the pipeline during the off-season eventually led to a huge problem. The harvest season of petitgrain starts in October and runs till March. As the orders come in quicker than supply, it adds to the existing supply issue and leads to the possibility of higher prices.

📈 USD 70.00 /kilo



LIME OIL 🌐 *Peru*
Citrus latifolia

Peru's severe drought of 2016 was a major concern since the lack of rain resulted in a less mature citrus crop. Subsequent flooding during an El Nino disturbance also affected the Piura region, Peru's largest lime-producing region, accounting for 57% of the country's production. The new season started in January 2018. Due to adverse weather conditions the crop production has declined and with this shortage of fresh limes, prices have drastically shot up.

📈 USD 36.00 /kilo

ARTEMISIA TAURICA OIL*Artemisia taurica* 🌐 Russia

In 2017, unusually hot weather locally destroyed plantations with very little oil produced, just one third of a usual year. In 2018, the season is expected to begin in September. When it comes to its thujone content the material represents one of the best value oils on the market. It is much higher than other origins and usually available at more reasonable prices.

🏠 NA

CLARY SAGE OIL 🌐 Russia*Salvia sclarea L.*

July 2017 marked the end of the clary sage oil harvest and showed positive results with more oil produced when compared with previous years. Currently the market is active as global demand has gone up considerably, and plans are in the offing to increase the plantation acreage. With buyers preferring the Russian quality over its French and Chinese counterparts, the 2017 season ended with no material left at origin. However the supply is able to appease the demands of the market, possibly from alternate stock supplies until the new crop becomes available in August.

🏠 USD 160.00 /kilo

CORIANDER HERB OIL 🌐 Russia*Coriandrum sativum L.*

During 2017 production slumped due to a drop in demand; though there is sufficient stock available. The prevalent good weather conditions have buoyed hope for the new crop, expected in June 2018. Harvesting of fresh material will be based on orders received from buyers, as most growers will let the plant seed and harvest later to produce coriander seed oil. Furthermore, since the shelf life of coriander herb oil is very low, as it oxidises very quickly, it is not possible to hold stocks for long periods.

🏠 USD 85.00 /kilo

CORIANDER SEED OIL 🌐 Russia*Coriandrum sativum L.*

2017 experienced the nadir of oil prices as a result of existing seed stocks and low demand. This prompted farmers and collectors to offload stocks at ridiculously rock-bottom prices. Given the hurdles of storing seed but not oil, there was excess supply. The sufficient oil stock carryover from 2017 may lead to a 30-40% reduction in growing area in 2018. Demand from the spice market seems to be bouncing back; therefore, expect seed prices to escalate and as a consequence the oil prices would rise too.

🏠 USD 50.00 /kilo

DILL WEED OIL 🌐 Russia*Anethum graveolens L.*

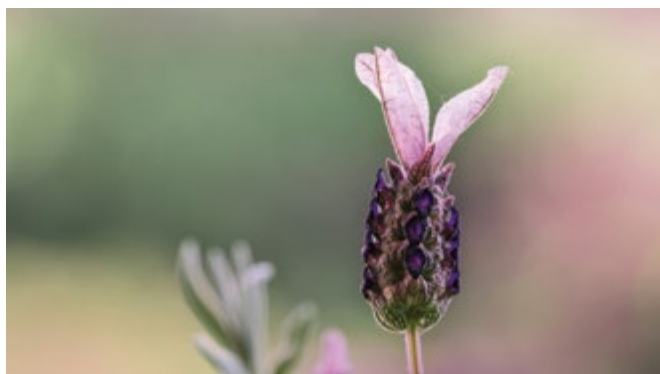
2016 left the market in a healthy position; there was increased production following good weather conditions and a simultaneous rise in demand. However, the 2017 crop was not as good as the 2016 crop due to changing weather conditions. But, in general, sufficient production kept prices stable. The 2018 new crop season is expected to start in July/August subject to weather conditions.

🏠 USD 45.00 /kilo

FIR NEEDLE OIL 🌐 Russia*Abies sibirica Ledeb.*

In 2017 there was a slow movement of supplies as the Siberian winter went on a little longer. But with the weather changing for the better the production figures increased in summer and ensured the availability of reasonable material. The new crop is expected to become available in April/May 2018. However, producers have already declared elevated selling prices as the strong winter has led to significant escalation in processing costs.

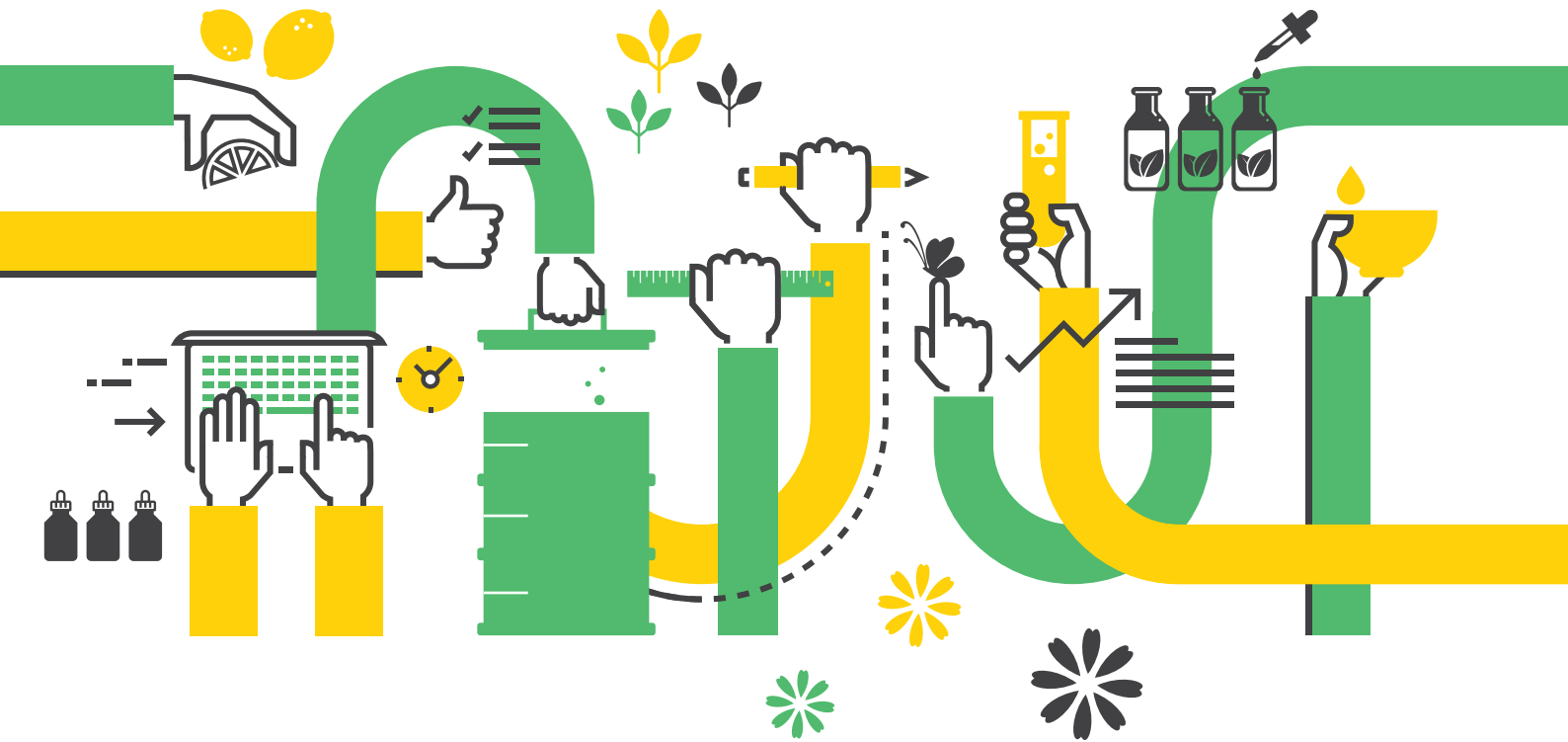
🏠 USD 33.00 /kilo

**LAVENDER OIL** 🌐 Russia*Lavandula angustifolia*

There continues to be a strong growing demand for this oil. During last year there was a decline in production as there were a handful of plantations left with no real new investments in plantations. However, some limited stock is available, but with growing demand, market sentiment is positive and awaiting the new crop harvest this summer.

🏠 USD 118.00 /kilo

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EUCALYPTUS CITRIODORA OIL*Eucalyptus Citriodora* 🌍 South Africa

The 2017 season started in June and continued until October. The real news on the new crop will be clearer in June. However, 2017 saw better managed farms and sustainable planting, allowing an offering of around 20 MT per season. South Africa has become more active in this essential oil and is now well positioned to compete in the global arena against Brazil and China.

🏠 NA

TEA TREE OIL 🌍 South Africa*Melaleuca alternifolia*

As the season in South Africa runs from April to October, output estimates will be available from the end of February. At present, the availability of sufficient stock suggests that supply will be greater than the current demand. In the case of organic tea tree, the current demand is strong for this material, and it is expected to remain so for 2018. The crop in 2017 was sold immediately after production.

🏠 USD 45.00 /kilo

GRAPEFRUIT OIL 🌍 South Africa*Citrus paradisi*

About 75% of grapefruit in South Africa is produced in the Limpopo and Mpumalanga regions. According to a USDA report, South Africa's grapefruit production is expected to rise 9% to 400,000 MT, based on a boost in production area. Out of the 400,000 MT produced approximately 147,000 MT are expected to go to the industry for processing. Exports are forecast at a new record with the higher supplies. The only major concern is the lack of rain in the Cape region, which could have a negative impact on the citrus crops in those areas for the upcoming season. Watch this space in the coming months for further news of this growing origin for grapefruit.

🏠 USD 75.00 - 85.00 /kilo

ORANGE OIL 🌍 South Africa*Citrus sinensis*

The side effect of the 2016 drought still prevails as the trees slowly recover and bear fruit. The European Union and Russia remain the major markets for South African oranges. With improved rainfall in 2017, better results were there in fresh fruit, though oil yields went down by 35%. The production of oranges for the 2017/2018 crop is expected to increase by 2.0% to 1.43 million MT as compared to the last crop and an estimated 13% of the crop will go to the processing industry.

🏠 USD 11.00 /kilo

TARGETES OIL 🌍 South Africa*Tagetes erecta*

Tagetes enjoyed a favourable season in 2017 and resulted in positive vein with conditions leading to good yields. The new 2018 production season will begin shortly. Favourable weather conditions with sufficient rain and cold weather indicate a good yield in 2018.

🏠 USD 175.00 -185.00 /kilo



LAVANDIN GROSSO OIL 🌍 Spain

Lavandula hybrida

Spain enjoyed a reasonable 2017 season but that wasn't enough to fill the gaps left by the French in the global market.

In addition, there are two major issues, namely that it is difficult to obtain firm offers for any volumes, and obtaining quality approval is difficult since almost all samples analysed this season have been adulterated.

🏠 Euro 35.00 /kilo



LAVANDIN SUPER OIL 🌍 Spain

Lavandula hybrida

The markets have been fairly flat with some carryover stocks still remaining. Given the poor lavender season many are expecting, demand may increase. Expect prices to firm in the near future.

🏠 Euro 55.00 /kilo

Lavender Spike - Farmers increased crop cultivation due to very high prices reached in 2015. The 2017 production was good and today there is sufficient product available with local farmers and traders. The price decreased notably. However this is unlikely to last, as farmers are unable to cover their production costs.



CYPRESS OIL 🌍 Spain

Cupressus sempervirens L.

The strong demand has increased the pressure on the oil production. Prices continue to rise.

🏠 Euro 120.00 /kilo

LEMON OIL 🌍 Spain

Citrus limon L. Burm. F.

Spain accounts for approximately two-thirds of EU lemon production and is the world's second largest processor after Argentina. According to the USDA, the 2017/2018 marketing year forecast for the Spanish lemon crop was 967,900 MT a 2.8% decrease on the previous year's output of 995,900 MT. ALLIMPO's more optimistic lemon harvest forecast was 1,115,000 MT, a decrease of 3.7% on the 2016/2017 season's output, which ended on 31 August, with 1,157,800 MT.

The main factor behind the decrease is the estimated 40% fall in the Verna variety output due to high temperatures affecting flowering in May and June. Verna and Fino are the two main varieties of lemons produced and production of Fino is predicted to rise by approximately 12% as a result of the new production areas established in the past few years.

Lemon processing volumes are predicted to be similar to 2016/17 levels. The processing market seems well balanced for the moment, with consistent quality and relatively stable amounts sent for processing. However, because of the growing demand from the fresh fruit market, there are invariable difficulties if processors wish to purchase additional raw material. These invariably have to be obtained at substantially higher prices, putting additional pressure on lemon oil prices. Hopefully, Spain's continued investment in expanding production areas alongside raising yields will help ease market pressures. However, pesticide use is still of some concern.

Nevertheless, Spain still plays a key role in the regulation of the market dynamics. In the current situation, prices remain strong with few signs of a decrease.

🏠 Euro 35.00 /kilo



ROSEMARY OIL 🌍 Spain

Rosmarinus officinalis

The gross production volume comes from wild harvest. The news from local farmers seems to be positive. The earliest batches will be produced in late April. There are few stocks currently with traders.

📈 Euro 75.00 /kilo



THYME OIL RED 🌍 Spain

Thymus zygis L.

It is early to predict the production of thyme oil. Earliest harvest will be next June. At the moment the climatic conditions have favoured the crop. Farmers are confident of a good production year due to the quantity of water retained on the soil during winter. The demand continues to be strong and the price would remain stable.

📈 Euro 120.00 /kilo

ORANGE OIL VALENCIA 🌍 Spain

Citrus sinensis

The main Orange producing areas are the regions of Valencia, Andalusia and Murcia. The leading orange varieties grown in Spain are Naveline, Navel, Navelate, Salustiane, Valenica and Sanguinello. There has been a continuous contraction in the Spanish orange industry over the past 5 years, as poor returns have caused many Valencian growers (which are better for oil processing) to give up orange groves in favour of other profitable plants.

Spanish qualities are rich in aldehyde, odour and colour, but as soon as the Brazilian producers start to decrease prices it can be a problem for the Spanish producers. The production was under pressure because of past heavy rainfalls and the decreased availability fresh fruit. Today there is little oil available in the market and we expect prices to be firm.

📈 Euro 11.00 /kilo

EUROPEAN UNION - ESTIMATED LEMON PRODUCTION (MT)

Countries	2014/15	2015/16	2016/17	2017/18
Spain	1,089,000	775,800	995,900	967,900
Italy	429,000	456,000	448,000	447,650
Greece	55,700	68,500	69,083	75,000
Portugal	13,000	16,000	16,000	16,000
Cyprus	11,000	15,000	8,000	8,000
Total Production	1,597,700	1,331,300	1,536,983	1,514,550



CINNAMON BARK OIL Sri Lanka

Cinnamomum Zeylanicum

The market remains unremitting with strong demand and limited raw materials eventually resulting in price pressures. Current conditions indicate that there will be no change in the foreseeable future.

 USD 350.00 /kilo

CINNAMON LEAF OIL Sri Lanka

Cinnamomum zeylanicum Nees C.

The crop harvest season started in May and ended in December with good supplies expected at the start of year 2018. However, collections have been slow and stocks of oil are limited due to major drought in the harvest area. There is an apprehension that this will ensure mounting pressure on supplies if demand makes a strong comeback.

 USD 30.00 /kilo

ROSEMARY OIL 🌍 Tunisia*Rosmarinus officinalis*

The 2017 season started in late March and ended in early August. The crop faced challenges from the limited availability of stock in the last couple of years. However now, as supplies are improving and moving towards a healthier situation, a price drop seems likely in the near future.

🏠 USD 70.00 /kilo

OREGANO OIL 🌍 Turkey*Origanum L.*

2018 started with a stable market and a good crop with no real changes ahead. Demand for oil is touching new highs, and new crop availability is expected in August, during the summer season.

🏠 USD 65.00 /kilo

BASIL OIL METHYL CHAVICOL 🌍 Vietnam*Ocimum basilicum L.*

The 'Severe Tropical Storm Talas' hit the cultivating regions in 2017 and brought down output significantly as a large proportion of the crop was destroyed. The harvesting season for the crop usually takes place between September and December. Under normal circumstances and ideal weather conditions Vietnam produces 25-30 MT, but it is feared that figure could be 50% less once the final output is calculated.

🏠 NA

CASSIA OIL 🌍 Vietnam*Cinnamomum cassia*

Yen Bai, Lao Cai region in Vietnam produces 700 MT of cassia oil. There are also some trees found in Quang Nam, Central Vietnam. The main harvest period runs from April to June and yields the higher cinnamic aldehyde content of around 85-90%. The second harvest period runs from September to November, when yields fall to 75-83%. Currently, there are sufficient stocks available to meet demand.

🏠 USD 45.00 /kilo



SUSTAINABLE DEVELOPMENT OF THE FRAGRANCE INDUSTRY CSIR-INDUSTRY ACTION PLAN - “INCITE 2018”



Photo: Panel Discussion

On February 15th some 100 delegates met at the CSIR's (Council of Scientific and Industrial Research) India Institute of Toxicology Research, Lucknow, for a path-breaking event to discuss a roadmap for the sustainable growth of the fragrance industry. The seminar was organised jointly by the CSIR, Research Institute of Fragrance Materials (RIFM), the International Fragrance Association (IFRA), and Ultra International, as the main industry partner. Senior Indian and international participants represented leading research institutes, academia and the fragrance industry. It was the first occasion that such stakeholders had come together to exchange views on critical issues facing the Indian fragrance industry. These issues include safety standards for fragrance materials, product standardisation, harmonisation of national and international regulations and standards, constantly changing market and customer expectations, and the use of innovative technologies.



Photo: Sant Sangneria, Ultra International, Prof. Alok Dhawan, Director, CSIR-IITR & CDRI, Lucknow and Bhuvana Nageshwaran, Ultra International



Photos from left to right: Prof. Alok Dhawan, Prof. Anil Kumar Tripathi and Ms. Martina Bianchini



Photos from left to right: Dr. James C. Romine, Mr. Michael Carlos and Dr. Shekhar Mitra

A range of speakers and brainstorming sessions covered these topics. The speakers and some of the key points raised included:

PROFESSOR ALOK DHAWAN, Director CSIR- IITR welcomed delegates to this unique event and thanked Ultra's Sant Sanganeria and Bhuvana Nageswaran for their initiative and exceptional efforts in making the conference a reality and bringing RIFM and IFRA on board. He argued that standardisation adds value to products and appealed to the fragrance industry to cooperate in this mammoth task.

PROFESSOR ANIL KUMAR TRIPATHI, Director CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP) spoke about the CIMAP's research activities including the work on low cost, high yielding varieties of aromatic crops, particularly in regard to *M. Arvensis*. He discussed how under the Aroma Mission, several CSIR institutes were jointly developing and popularising technologies for cultivating, processing, value-addition, product development and marketing of medicinal and aromatic plants.

DR. JAMES C. ROMINE, President of RIFM, detailed the organisation's work on safety and risk assessment of fragrance materials and urged IITR and CIMAP to collaborate with RIFM in accelerating the safety studies on remaining molecules and natural complex substances.

MR. MICHAEL CARLOS, Chairman IFRA shared his views on the challenges posed by the fast changing global environment and wanted to explore collaborative opportunities between RIFM/IFRA and Indian government and industry organisations to formulate a regulatory framework for fragrance materials.

MR. SANT SANGANERIA, Founder Chairman, Ultra International and a driving force behind the conference, discussed the fragrance industry's unique, interdependent and international characteristics, which made it sensitive to market, socio-economic and regulatory changes. He elaborately outlined the challenges and impact of these changes and stressed the need to adopt scientific and futuristic approaches to prepare for change and maintain steady growth. Salient points included: regulations and restrictions can be an opportunity to improve product quality and safety; regulations not only make products safe but compel innovation. Specific needs include: substantial R&D investment, well-trained human resources; promotion and development of quality products with safety and efficacy, standardisation of natural and synthetic aroma materials; harmonisation of Indian industry with global safety and regulatory norms, promotion of aromatic crop cultivation, collaboration between research institutes (e.g. IITR, IFRA, RIFM) and a platform where all stakeholders can share their views

MS. MARTINA BIANCHINI, President IFRA, outlined its various activities and vital role in establishing science-based fragrance safety standards, implementing self-regulations in many countries and efforts to improve the value chain in the global fragrance industry. Also she perceived immense potential in cooperating with CIMAP under Aroma Mission.

DR. SHEKHAR MITRA, President InnoPreneur & Former Sr. V.P. at P&G presented on 'Innovation in a Changing World', emphasising developing innovative technologies to deal with changing global challenges; and the need for Indian companies to partner with international companies to make Indian fragrance world class, facilitated by a lot of science.

DR. ALOK KALRA, Chief Scientist, CIMAP provided an overview of the Aroma Mission, aimed at sustainable production and value addition of aromatic crops. Its key objectives included value addition of essential oils; promotion of aromatic crop cultivation; development of essential oil based antimicrobial formulations, bio-pesticides, regional and environment-specific aromatic crops; development of high yielding essential oils crops; and use of agro-technology.

DR. VIJAY BAMBULKAR, Consultant & Former Director-External Growth and Innovation at Johnson & Johnson, gave a presentation on 'Proactive Compliance of Indian Fragrance for the Global Market', arguing that self-regulation by the Indian fragrance industry in the interest of the global consumers is the best way forward until the regulatory authority starts enforcing regulations.

DR. RAHUL PARAKHIA, Toxicologist, RIFM, explained various steps and procedures related to RIFM's approach to skin sensitisation safety assessment, which are valid worldwide.

DR. ANNE MARIE API, VP, RIFM presented on RIFM's various types of safety assessment studies and research programmes on fragrance materials and its integrated approach to bringing science to fragrance safety.

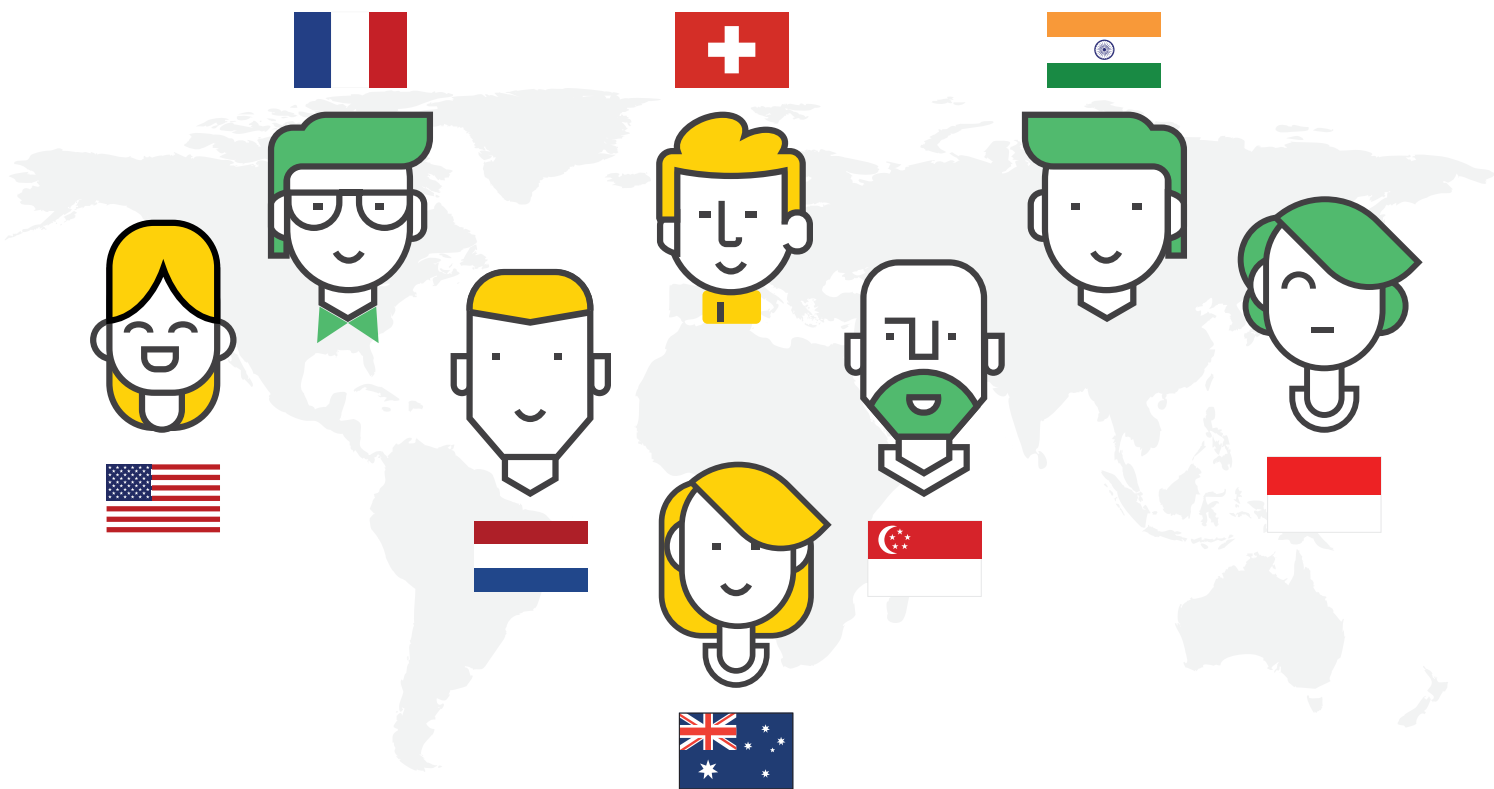
DR. ATISH PATEL, Toxicologist, RIFM, gave an overview of RIFM's toxicology research programmes and explained TTC (Threshold of Toxicity Concern), a risk assessment tool that establishes low level exposure values for chemicals with limited toxicity data.



Photo: All Delegate Members

The Panel Discussion concentrated on 'Value Addition in the Fragrance Industry through Standardisation and Safety'. Safety assessment adds great value to a material and makes a product globally acceptable; standardisation and safety assessment are greatly needed and should be positively welcome by the Indian industry. Mr. Sangneria emphasised farmers' education enabling them to produce high quality essential oils, while Ms. Nageshwaran, responding to a question, stressed the industry's responsibility towards the farming community to make them aware of hygienic practices during essential oil distillation. Professor Dhawan concluded that consumers' increasing awareness of product safety necessitated the need to accelerate standardisation and safety assessment of fragrance ingredients. He saw the conference as just the beginning of the process and its recommendations would be put before the government to pave the way for effective regulation relevant to the fragrance industry. It was unanimously agreed to continue further deliberations to work out an articulate roadmap for sustainable growth of the fragrance industry.

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