

MARKET



Intelligence



JULY 2018



CITRUS OILS - ESSENTIAL OILS - CHEMICALS - HIC

WELCOME

IN THIS ISSUE

04 Citrus Oils

08 Essential Oils

10 Chemical Ingredients

12 High Impact Chemicals



Unlike recent issues where natural disasters were the cause of market volatility, in this issue we find ourselves focussing more on the influence of those problems man is generating. New environmental legislation and factory fires have all contributed to current supply chain instability.

As this issue goes to press, a team of our UK and US professionals are preparing to embark on an extensive tour of some of the key growing regions around the world. However, as we enter significant harvesting periods for major crops from Brazilian orange and Argentinian lemon through to Russian coriander and Chinese turpentine, we bring you the latest market updates from our team of experts.

September sees us attending such major industry events as IFEAT and ICBC, where we re-connect with long-standing industry colleagues, and exchange knowledge with both suppliers and customers alike. We look forward to sharing our findings from these events in the next issue.

With the recurring theme of volatile markets and supply chain difficulties, we remain committed to keeping our finger on the pulse of global events affecting the industry. This is just one of the ways we are able to give our customers a true commercial advantage.





CITRUS

Oils

ORANGE

Brazil

In the blink of an eye we find ourselves well into the third quarter of 2018, approaching another new Brazilian orange oil season. With the 2017/18 398 million box (mbx) bumper crop behind us all minds were firmly focused on the Fundecitrus box count for the new season and, more importantly, the impact this number would have on prices for orange juice and all its co-products. The official forecast was published on 9th May at 288 mbx, 28% lower than the prior season. With some processors still running last season's fruit into March, quick cash generation became very important enabling the supply stream throughout the second quarter to remain quite active with opportunistic parcels surfacing one by one, most for immediate shipment. In the approach to the new crop the market quietened down and we began to see prices further marginally ease, but as we progressed into the month of June, the uncertainty of global inventories again surfaced. The consensus right now is that most buyers are only doing so piecemeal, with large volumes of new crop oil yet to be secured. The annual questions of where will the Brazilian new crop oil and terpenes open at, and will the gap be sustainable and sensible have again risen, with both buyers and sellers waiting for those answers to be defined.

The d-limonene and terpenes markets have been hot topics recently, particularly with the entry of significant low-priced volumes which went initially into the North American market, then cascaded into the wider global landscape. The extreme differences we have been seeing in prices between d-limonene and orange oil are indeed concerning and something we are trying to understand more about as we move into this year's Brazilian crop. We do need to be cognisant of the differences between F&F (flavour & fragrance) orange terpenes and industrial grade d-limonene. Whilst industrial grade d-limonene can be replaced and/or substituted with numerous petrochemical, pine and chemical derivatives, orange terpenes cannot so easily be switched out. These two products are indeed different and service some very unique applications in diverse markets. The impact of reformulation specifically within the HI&I (Household, Institutional & Industrial) markets remains ambiguous, but we do know that this reformulation has and will continue to cause grave concern within the full orange markets.

The latest news suggests a very dry period in Sao Paulo is hurting this year's citrus crops. It has been reported that no rain at all fell during the month of June and very little is expected over the next few weeks. We need to consider

what the lack of rain could mean for the size, quality and overall health of the 2018 orange crop. Some have speculated that it could already be as much as 9 mbx lower than originally forecasted by Fundecitrus. Others worry that we could see an increase in HLB infected trees. This will add further pressure to the smaller processors when procuring fruit; many are already forecasting their capacity will be down 20%-30% from last season.

The next few weeks will prove a critical time for what could be a very challenging season ahead.

USA

Florida's very short 2017/18 orange processing season has ended. The final USDA number for the state was 45 mbx. Due to the brutal combination of Hurricane Irma and HLB, this season now holds the record for lowest volumes of oranges produced since World War II! Elizabeth Steger's forecast for 2018/19 will be released in August, and we all await that with anticipation. The good news is that growers are very optimistic the upcoming season will be much-improved, and they are looking forward to steadily increasing volumes over the next many years. However, the United States are just at the beginning of the official hurricane season. The total number of "named" storms (Alberto and Beryl have already come and gone) has been predicted at between ten and sixteen; five to nine forecasted hurricanes, one to four of which could become major hurricanes between now and 30th November when the hurricane season officially ends. Much depends on the water temperature in the Atlantic, which is a little cooler than usual currently, and if El Nino conditions develop in the Pacific. We will have to wait and see. It only takes one strong storm, as we all saw last year, to have a dramatic impact on any of our major crops.

Mexico

Mexico's processing season for 2017/18 ended in May/June. Both the crop and size of the fruit was good overall, with more than half of the oranges grown going to the fresh fruit market. There is now though increased pressure on both the processing and fresh fruit sides because of Florida's reduced production numbers. Mexico, like both Florida and Brazil, continues to battle citrus greening, especially in Veracruz, which is the largest growing region. They are also in the middle of hurricane season and next year's crops will depend largely on if Mexico is impacted by any major weather events. Early and Mid-season varieties will be harvested and processing begin again in October, with Valencia varieties following a few months later. Mexico's importance within global orange dynamics seems to increase as each year passes, and they are responding to the demand with increased planting, production and processing.



LEMON

Argentina

As we moved between the first and second quarters of this year the surplus volumes from 2017 diminished gradually as those with long positions looked to streamline their supply. This season's lemon crop is estimated to be 10% up on last year at approximately 1.15 million tonnes, with industrial fruit prices stabilising to levels around \$200/mt, unlike the unprecedented highs we saw last year of up to \$340/mt. The 2017/18 season proved a very difficult one for processors with such high fruit prices which forced them to either secure the fruit and bear the costs, making little to no profit, or campaign run where possible to meet customer demands. Either way for Argentinian processors, profit levels were minimal at best. 2018/19 looks more promising for both sellers and buyers and one that should help stabilise supply and demand, thus ensuring a healthy, sustainable supply chain.

Italy/Sicily

A standard size (580k mt's) and quality crop concluded in April. Throughout this season the challenge of securing fruit to run in the plants remained at large for processors. Campaign running seemed a logical strategy to manage customer demands whilst procuring cost effective fruit where possible. Prices for oil hit close to the \$44/kg level during the peak as demand for Sicilian oil as a premium origin firmed, though as the season entered its final stages and Argentinian oil flowed into the market prices for oil eased back to levels under \$40/kg.

Spain

Another stable Spanish crop concluded in April with the Fino variety, following a seven-eight week harvest of Verna. This season settled at just over one million tonnes with Fino accounting for over 80% of the total volume. Competition for fruit continued throughout the season as demand from the fresh sector rose by 13% during September to December 2017 which decreased the amount of fruit available for the processing industry. Spanish lemon has always been dominated by the fresh fruit market, and although we may see this change in the longer-term future as those processors able to secure their own groves continues to increase, it will be some time (if ever) before this may influence the strong hold the fresh fruit market has on Spain as an origin. With oil demand firm, prices during the peak season rose to levels of \$42/kg but as demands were met the prices fell back between \$36/kg and \$38/kg depending on quality.

USA

California is now the number one citrus grower in the US, surpassing Florida. They supply 40% of the nation's fresh lemons for consumption, but more than 50% must be imported as demand for the fresh fruit just far outweighs production. The USDA forecast for California lemon remains steady at 20.5 mbx. They came through a severe drought in 2016 and a major wildfire which devastated Ventura county in December of 2017. The damage could have been much worse and it is estimated that Ventura county only lost about 1,500 acres or 3% of its total lemon growing area in those fires. Although total acreage and production of lemons has remained constant over the last couple of years, an ever-increasing percentage of California's total lemon crop is being sent to the fresh market, which of course means less is available for industry. With its deep yellow colour and notable origin, California lemon oil remains in high demand and at a premium price.

DISTILLED LIME

Mexico

The pectin market inventories continue to impact lime processors, with peel demand and prices remaining soft, averaging around \$800/mt. Demand generally for juice and oil has been slow, but there has been an increase in juice demand in Europe believed to be a result of continual hot summer weather. As well as finding a home for the peel the other major consideration for oil producers was the fluctuation in fruit cost, a circumstance further exacerbated by a strengthening in the Peso at a key point in negotiations to secure fruit. As we entered June all processors in Michoacán were running fruit, however compared to the two previous seasons the distribution of fruit for processing was quite late to start. This appears to have been driven by three main factors: lower volumes of fruit due to increased average age and maturity of the trees, deterioration of yields caused by the leaf and fruit eating insect Thrips, and reduction of investment to manage the trees by growers, as fruit prices fluctuate and often appear less attractive. The actual oil content in the fruit in Mexico is also trending down, substantially lower than historical industry averages suggest. It is not clear yet if this is a function of Thrips impact, regional variability or a combination of the two, but some processors are seeing oil yields as much as 15% down on what would normally be expected this time of year.

Peru

The main processing months for Peru have passed, which yielded some 360 mt of oil, 40% less than what we would expect in an average year. Although there is some processing activity July through November, it is minimal.

Less fruit volumes, radical fruit price fluctuation, late fruit distribution for processing, changes of oil yields in fruit, heavy peel inventories, and what seems to be slow demand for the oil are all factors that could turn this market on its head very quickly. This is one market that we have been and will continue to monitor very closely along with our strategic alliances.

GRAPEFRUIT

Only a decade ago, Florida produced almost 27 mbx of grapefruit. The most recent forecast total was down to 3.9 mbx, an 85% reduction. The more significant part of this story is of that 27 mbx, 9 mbx were white varieties, and now that number is a mere 700,000 boxes – an incredible 92% reduction in ten years. This reduction, in a similar vein as the rest of Florida's citrus, has been caused by the deadly combination of citrus greening, hurricanes and dramatically less demand for the juice.

So far, the crop in Mexico is looking healthy barring any weather disasters in the next few months. Processing there is carried out during October and November, but their volumes are also quite small due to little planting/re-planting of trees and very few places to sell the juice.

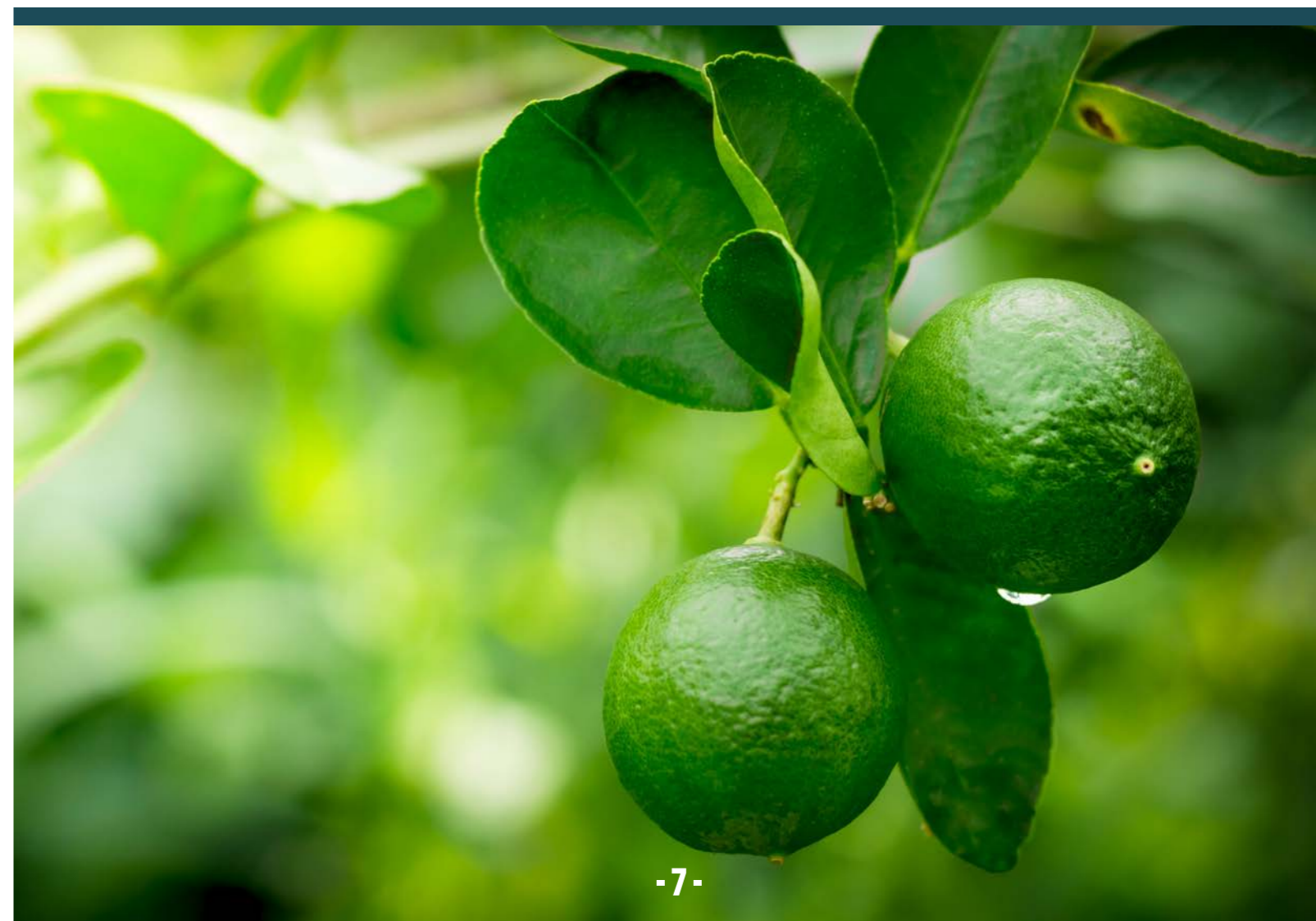
Despite such a drastic reduction in supply demand for this flavour has continued to increase at astonishing rates. Prices of oil from white, pink and red varieties as well as essence oil and aroma all seem to have stabilised but at historically high levels and so to meet this ever-increasing demand, Treatt offers a wide range of grapefruit solutions and our Innovation team is happy to discuss any of your requirements.

EXPRESSED LIME

Mexico started processing Persian limes at the beginning of June. Although supply is plentiful there was a lack of rain in May which is what growers traditionally rely on to make the fruits larger and very juicy. The smaller limes now coming into the plants is giving processors a good yield for the oil, but correspondingly poor yield for the peel and the juice.

Brazil also had a decent crop of Tahitian limes but processed 15-20% less than last year. The underlying strength in the global fresh fruit market only served to push up fruit prices, making them quite expensive when compared to the previous season.

There appears to be a nice balance between supply and demand in the market and as such we expect prices to remain, at worst, stable and possibly even soften in the coming months.





ESSENTIAL Oils

CORIANDER (RUSSIAN)



The 2018 season is upon us but even still the outlook remains unclear. The planted area is around 30% less than last year and the hot weather has not been kind to the crop. This could very well result in a repeat of the disastrous 2013/14 season when unfavourable weather conditions were again the culprit. Some carryover oil is still available but prices are already creeping up. We anticipate the increase will become more dramatic once the harvest is complete and the reality regarding availability becomes more apparent.

CASSIA (CHINESE)



Prices softened slightly as oil producers scrambled for cash to purchase the new crop raw material currently being collected. Word from origin is that it is unlikely to remain there though as those same processors fight to get them back up to pre-harvest levels. Expectations are that the overall crop will be smaller than last, but until we get closer to the traditional end date of August this remains purely speculation. At least demand for the oil is lower than previous years which will help support the price somewhat.

EUCALYPTUS (CHINESE)



For a very short period recently we saw a small reduction in price. However, our 'ear to the ground' at origin has advised this was temporary and prices have already begun climbing again with persistent rains in the collection areas making crude oil difficult to find. Word has it that the Yunnan provincial government – one of the largest growing regions – are to forbid the planting of new trees. The official reasons given are that eucalyptus trees consume a lot of water and sap the ground of any nutrients and now the real fear is that other provinces will follow suit. If this rule is enforced availability of Chinese eucalyptus globulus oil could dwindle year on year. Other origins would attempt to soak up the higher demand but at a time when the crop sizes are just not there to support the shift, such is the dominance of China as the key origin for this oil.

LITSEA CUBEBA AND CITRAL (CHINESE)



The upcoming harvest is projected to be like last year. There are still small parcels of the oil, and main derivative citral, available at origin and the major trading hubs at exorbitant prices but it will likely be October/November before new crop material reaches traders in Europe and the US, providing any sort of relief. It seems we say this with increasing frequency but it is unlikely that prices will ever return to levels seen only a year or two ago. Costs of updating equipment to remain compliant with the Chinese environmental protection regulations and farmers and factory owners having to pay the increased minimum wage for labourers two of the major drivers behind this step change.

ROMAN CHAMOMILE (ENGLISH)



Although the chamomile fields are in full bloom and look fantastic to the untrained eye, farmers have confirmed that the plants are only a 3rd of the height they should be. These plants under normal circumstances reach around 30cm and even up to 45cm when in full bloom. The crop has flowered earlier this year due to the extreme heatwave with the harvest likely to commence earlier than usual as a result. It is too early to say whether the yield will be significantly affected – this will only become apparent once distillation begins. Usually the warmer the weather the higher the oil content but in this instance, with the plants being so small, it is finely balanced. Here's hoping!

GINGER (CHINESE)



Ginger roots buried or stored in underground cellars after the September/October harvest for planting in the spring, have been deemed unfit for re-planting. The melting of the heavy snowfall experienced in the main growing region earlier this year has saturated the root which also means any hope they could supply the spice market has also dissipated. The impact for the oil market is double edged – these roots were suitable for oil processing, but this is a short-term gain for a longer-term pain. It has improved the availability of oil allowing a softening in price, but this will only be temporary as those roots not re-planted will reduce the harvest later this year.



CHEMICAL

Ingredients

TURPENTINE

As we have seen with other persistently firm markets sooner or later a cheaper alternative presents itself against traditional mainstays, challenging formulators to rework existing recipes to use them. In the case of gum rosin, a petroleum substitute is now replacing it and with a lower, more stable, cost base. This is only adding to the pain felt by those using the by-product of this process, gum turpentine, and its derivatives as the old costing mechanism is updated. In our last Market Intelligence we spoke about prices moving up and, after a small lull, this upward trend has continued for the reason above.

The rosin resin crop is now underway but unless more is processed we don't expect it to provide any relief to this highly volatile market. The backlog of orders already on manufacturers' books which need to be serviced first are quite substantial. The direct consequence is the increasing difficulty associated with sourcing turpentine derivatives with no offers in the market for products such as borneol flakes, camphene and iso bornyl acetate. Other derivative materials such as natural beta and alpha pinene and terpineol offers are still there but at very high prices and with very limited quantities available. The gum rosin situation is unlikely to reverse for a very long time.

CLOVE DERIVATIVES

With last year's poor harvest, where output was approximately 30% lower than 2016, it has been a difficult year for users of clove derived products. As we get closer to the 2018 harvest in the coming months once the dry season starts, inventory levels are critically low, making it difficult to secure the raw material to produce eugenol and natural caryophyllene. Prices are already high and look set to continue with demand consistent, unaware of the fact we are out of season. A bumper crop would be welcomed, but we will not have news of this until later in the year.

STRAWBERRY FURANONE

Most Chinese manufacturers have been forced to stop production due to ongoing government restrictions on pollution. Those remaining active producers are not able to supply sufficient material to cover global demand with the resulting firm prices and short supply mirroring what we have seen many times over lately.

ETHYL BUTYRATE

Another chemical where pollution restrictions are continuing to have a big impact is ethyl butyrate. Very few factories are now able to produce, coupled with this, the raw material butyric acid is also experiencing high demand. Prices will continue to rise with little chance of softening in the near future as availability of this industry building block remains poor.

ETHYL ACETATE

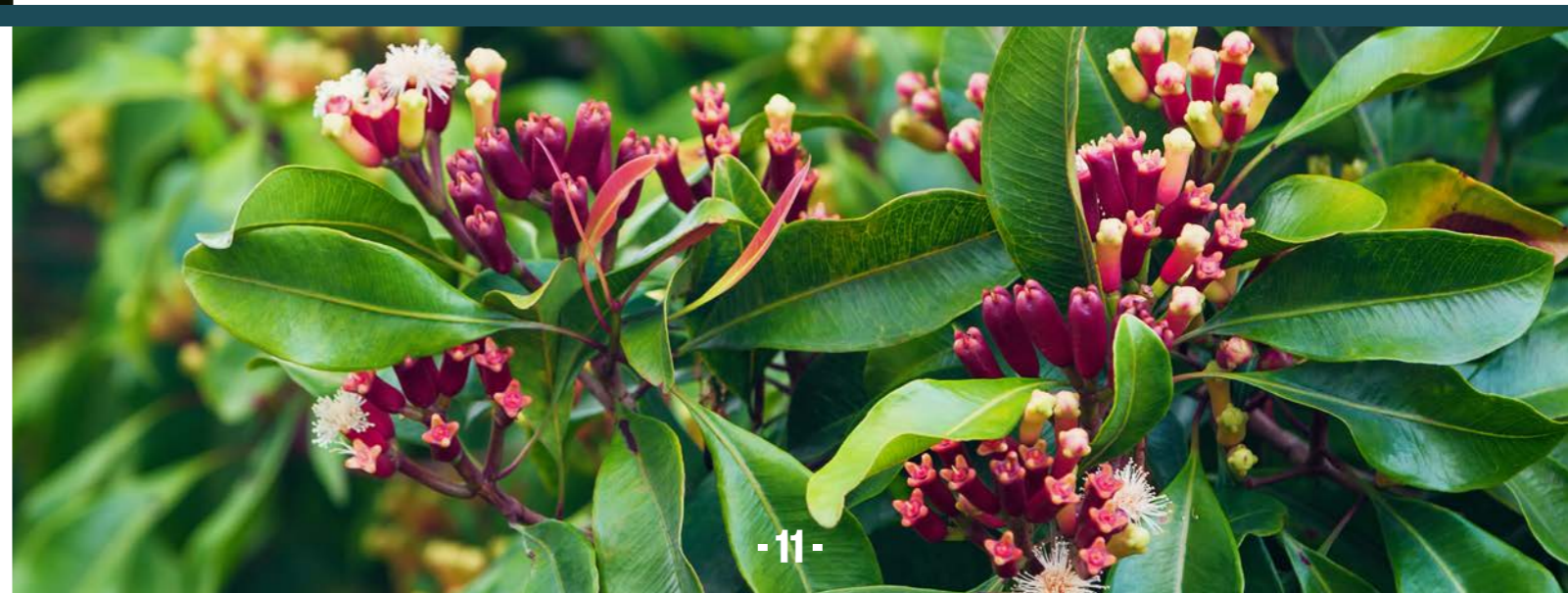
Acetic acid, the key feedstock for ethyl acetate, remains problematic. Last October damage caused by hurricane Nate resulted in a fire at a major producer in the US responsible for supplying 277,000 tonnes per year. European origin material has been diverted to the US since then to cover demand dramatically reducing quantities available there and to cap it all a major Asian producer remains closed seemingly for the foreseeable future. Prices have naturally increased and are now being reported at a two year high, little change is expected to the situation for the next few months at least.

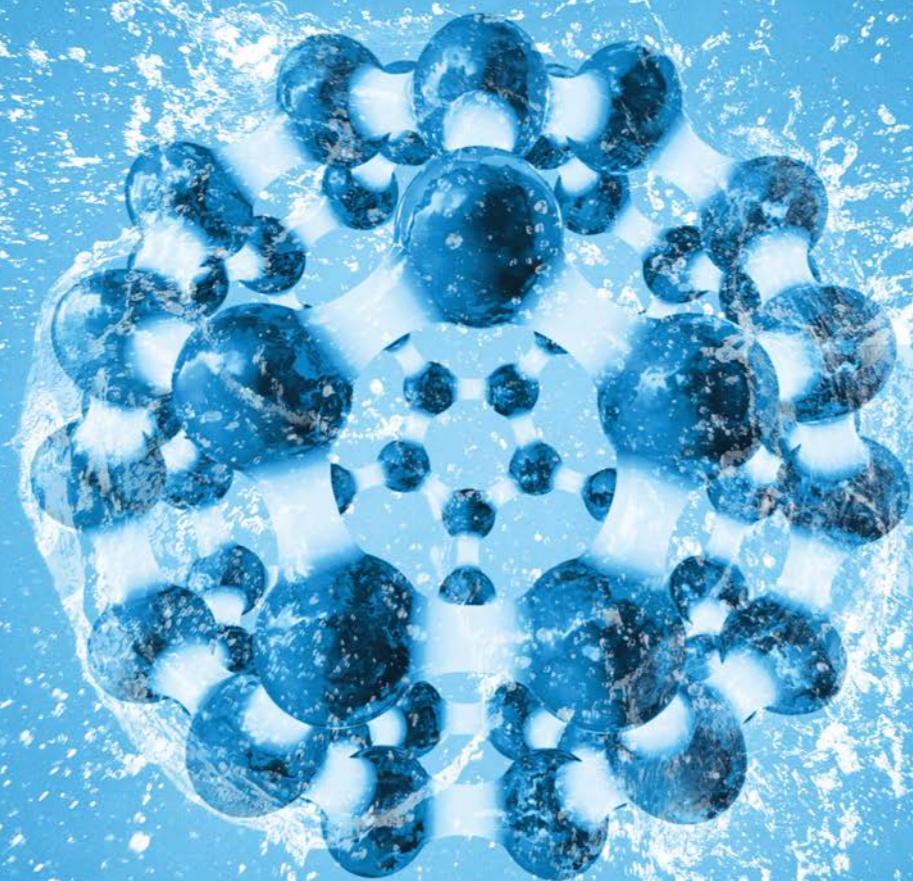
LACTONES

Another range of materials the origin of China has come to dominate, driving out almost all competition. But in a short period of time many factories have been forced to either drastically cut, or even cease, production. Demand remains as strong as ever which means a swift back log of orders has been created for those who are still able to produce. This is currently being most keenly felt through pricing for gamma nona- and undeca-lactones. The situation does not look likely to improve before the end of the year as capacity will continue to be restricted.

METHYLCYCLOPENTENOLONE

As reported previously, larger factories are still only able to produce at less than half their production capacity due to the new environmental regulations. With demand remaining stable, this has left a widening deficit in the market. As competition rises to secure what is available so do the prices we are seeing in the market. Another situation unlikely to change as the far-reaching implications of these policy changes show no sign of stopping.



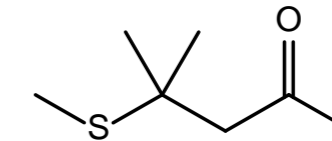


SYNTHETIC TREATS

Snacks are what help us get through our busy days, plus relax in the evening and desserts are often the most anticipated part of any meal! This selection of HICs will help to deliver the complex, satisfying flavour experience we expect from our treats.

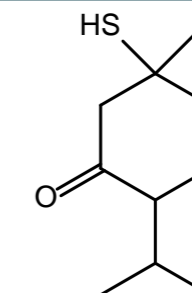
4-METHYL-4-(METHYLTHIO)PENTAN-2-ONE (FEMA 3376) CAS 23550-40-5

Enhancing tropical notes such as guava and passionfruit, whilst adding overall complexity to all fruit creations, especially blackcurrant – when employed at 0.1-1 ppm. Nature identical in yuzu and white wine.



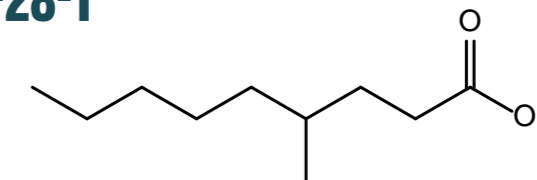
MERCAPTO-P-MENTHANE (FEMA 4300) CAS 29725-66-4

One of the most recent additions to our portfolio, this remarkable molecule adds depth to citrus and a rich roasted character to pumpkin, sesame and peanut flavours. Typical usage 0.1-0.5 ppm.



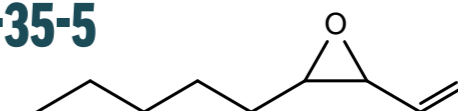
4-METHYL NONANOIC ACID (FEMA 3574) CAS 45019-28-1

Allowing blue and goats cheese plus meaty lamb flavours to taste as authentic as their namesakes. Creamier and more subtle than its counterpart 4-methyloctanoic acid. Typical usage at 5-10 ppm in dairy / snack foods. Nature identical in mutton.



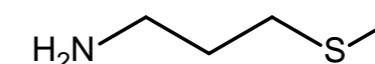
2,3-EPOXYOCTANAL 10% IN TEC (FEMA 4659) CAS 1048958-35-5

A subtle, fatty molecule, ideal for smoothing citrus, ghee and rich tropical fruits. Nature identical in oats, typically used at 0.1-1 ppm.



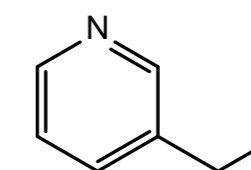
3-METHYLTHIOPROPYLAMINE (FEMA 4649) CAS 4104-45-4

This malleable molecule is used in snack foods at 0.1-1 ppm to enhance ripe, cheesy camembert type notes and at higher levels of 1-3 ppm to build body in seafood flavours. Nature identical in roasted cocoa.



3-ETHYLPYRIDINE (FEMA 3394) CAS 536-78-7

Providing an interesting mix of sweet, buttery plus smoky roasted, caramel notes - ideal in potato chip flavours and crème caramel and typically used at 0.01-0.5 ppm. Nature identical in coffee, tea and tobacco.



HIGH IMPACT

Chemicals





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