TREATT

MARKET *Intelligence*

APRIL 2019

Citrus Oils • Essential Oils • Chemicals • HIC

IN THIS ISSUE

WELCOME

Some may say we are witnessing a period in our history where it has never been more difficult to keep pace with what is happening in the world. In the face of almost daily news reports of ongoing economic and political uncertainty, Treatt's agility allows us to stay abreast of these developments and ensure consistent quality and service to our valued customers across the globe.

As we aim to keep you informed of the ever-changing markets, we continue to invest in close relationships with our suppliers. In anticipation of the start of many major essential oil-bearing seasons globally, Treatt's teams are planning extensive tours to key growing regions across the globe, to get a tighter view on the markets. We look forward to sharing more with you from our travels in the next edition (mid-late July) of our Market Intelligence.

CITRUS Oils

ORANGE

Brazil

Fundecitrus published its third crop forecast update for the 2018/2019 season on 11th February at 285 million boxes (mbx), a 9 mbx increase from their second update of 276 mbx in December 2018.

The final 2018/2019 forecast is scheduled for 10th April 2019. Although currently no official indication of crop levels for the 2019/2020 season has been given, it is expected to be well more than 300 mbx.

Moving into the first quarter of 2019, talk of a negative global juice inventory trend continued, as Citrus BR forecast that by the end of June 2019 we could see a potential 41% reduction from the same period in 2018. The last quarter of 2018 saw an exceptionally quiet oil market with the gap between terpenes and orange oil a minimum of USD 2/kg. This prompted some buyers to take a position and lock in a proportion of their volumes, whilst leaving some uncovered to hedge against the further potential of oil softening following the terpene and d-limonene markets.

In certain parts of the world and in some applications, the market is challenging the premium paid for terpenes over crude d-limonene. However, it remains clear in the F&F market it is not so easy to substitute food grade terpenes, which has aided in Europe holding at slightly higher price levels than North America. Still, this hasn't stopped the negative influence that crude d-limonene continues to have over terpenes.

Oil has shown slight softening, but it remains undeniable that it is not falling with the same trajectory as terpenes have. This has, of course, put pressure on the prices of folded orange oil and fractions which will have to bear a greater percentage of cost due to the infamous "gap."

Will there be oil carryover from 2018/2019 season? With a potentially healthy crop ahead, this is a question we are all asking ourselves as we consider whether processors will be looking to clear their inventories.

USA

We are delighted to be able to report that the news continues in a positive vein for Floridian growers and the latest USDA update from March 2019 is consistent with February 2019 at 77 mbx, which represents an increase of 70% on the previous season's crop. This is particularly encouraging given the number of potential hurricanes forecast back in May 2018, and the devastation caused by those that did materialise (Florence and Michael). As we approach June again, we must give consideration to new weather threats, though the first reviews of global climate patterns that can influence hurricane season have highlighted a 65% chance of a less active hurricane season this year compared to last.

California is bouncing back this year to a healthy consistent crop size after the 20% reduction we saw in 2018, which was the lowest for many years. According to the California Citrus Pest and Disease Prevention Program, however, the number of Huanglongbing (HLB) detections in California increased by 160% from 2017 to 2018. This gives growers cause to carry an elevated level of concern as the entire citrus world continues to search for a cure for this disastrous disease.

Mexico

As we reach the halfway point of the processing season, indications suggest a total crop of 4.6 million metric tonnes (mt) of fruit - a 300,000 mt increase on the projection we saw at the start of the season. With approximately 50-55% destined for the processing industry, this could yield some 5,000-5,500 mt of oil. Although the hurricane season proved to be extremely challenging, we were thankful it was not detrimental to the crops, despite Hurricane Wilma in October 2018 being initially registered as a Category 5. Mexico's position as a global player in citrus continues to grow as processors there are committed to investing in the future.

LEMON

Argentina

As predicted, this season's crop stabilised as Spain and Italy came on line in the last quarter of 2018. Moving into 2019, supply and demand levelled out, in fact, it tilted towards oversupply on a global basis. This resulted in a softening of prices as processors jockeyed to move oil. Those who are strategically integrated with customers continued to move oil, whilst others found it more difficult to do so.

2019 projections are looking healthy, with 1.4 million mt forecast this season. With processing already underway in Tucuman we will have seen a year-round supply of oil for the 2018 through 2019 season. Planting of more new crops continues, and processors are working to map out their strategies for sustainable growth in what is a densely populated market place.

Continued on next page

Spain

On 24th January 2019, Ailimpo published its third harvest report. It was encouraging to note that the 2018/2019 figure of 1.3 million mt was consistent with that published back in September 2018, with a slight uplift in the Fino and Verna variety of around 380,000 mt. This is a very positive outcome and further cements Spain's position as the top supplier in Europe.

Although the biggest crop in 10 years, with a typical 200,000 mt normally destined for the processing industry, this was not the case at the start of the season. For the period October 2018 to December 2018, Spain lost sales in the fresh fruit market to other competing countries such as Turkey and South Africa, who aggressively priced fresh fruit. The knock-on effect of this was volumes normally destined for fresh fruit and processing markets were down by 20% in this quarter as the fruit was left on trees unpicked. This reinforces the challenges faced by the processing industry in this fresh fruit driven market. Although the largest volumes are processed between January and May, the processing industry is hoping to recover Q2 into Q3 2019. But this will largely be driven again by the price the growers look for from the fresh fruit market, coupled with price pressures from both Turkey and South Africa.

The dry peel market is still proving difficult on a global basis for processors as they attempt to move stock even with prices bottoming out. On a positive note, members of fresh fruit production and industrial processing have come together under Ailimpo, to understand all the market dynamics and work out the best strategy for Spain as one of the competing nations supplying lemons and associated lemon products to the world. Discussions are continuing with the objective of reaching an agreement to supply more fruit directly to the processing industry, but this is likely to take up to two years to finalise and implement.

USA/California

With lemon grown year-round across three varieties - desert, valley and coastal - the 20% crop reduction we witnessed last year as a result of the excessive heat in July, will hopefully not be repeated as early weather predictions forecast nearer normal temperatures this year. The fresh fruit market continues to be the key driver for this region with strong, continuous demand from the USA. Firm demand for oil should continue as it is still regarded as a premium quality globally. However, this year could prove a counterbalance year, as supply and demand level out with prices projected to stabilise.

Italy/Sicily (Lemon & Blood Orange)

Despite the major damage that was caused by the heavy rains we saw during October 2018, lemons remained relatively unaffected compared to other citrus varieties. The most notable citrus fruit affected was blood orange which remains under significant pressure as demand exceeds supply. The lemon crop achieved a normal 500,000 mt, of which 20-30% (100-150,000 mt) is typically supplied to the processing industry.

However, with fresh fruit also driving this region, industry fruit prices rose to extremely high levels (Euro 320/mt). This remains a major challenge for Italian processors who face global competition from other regions, many with significantly lower industry fruit prices giving them an advantage from the outset.

DISTILLED LIME

Mexico

If you remove one leg from a tripod it falls over as it becomes unstable. This analogy neatly describes the current situation and challenges faced by the distilled lime supply chain. As industrial fruit prices rise to maintain levels almost double those in Peru, the demand for one leg, dry peel, continues to reduce and demand for another, essential oils, further softens. Juice demand remains the only steady factor.

Indications suggest the second flow of fruit from the Michoacán region is trending down in volume, potentially resulting in the smaller processors not being able to secure fruit for processing as the larger ones swallow up supply. The key question for processors and customers alike is, when will the three contributing revenue streams (oil, juice, and dry peel) return to more sustainable levels?

We must ask - is global demand for all three declining? Are we starting to see supply and demand market dynamics change? Or is this a temporary situation, brought about by a correction in supply chain inventories? This uncertainty and lack of clarity around the cause is extremely concerning to all in the supply chain. Under the illusion that demand has fallen off, will growers eventually cut back on planting or switch to other crops? Yields this season are expected to be lower than in 2018 as trees pass their prime years of life. Thrips (small insects which can damage and scar fruit) also continues to challenge growers though there are no indications that the pests are causing crops to reduce further at this point.

When we also factor in the heavy rains forecast for Michoacán in the months ahead it looks set to be another difficult season.

Peru

The season has been steady with processors starting to wind down as we exit the main processing period with expectations that total volumes of Peruvian fruit for processing this year will be less overall than we saw in 2018. The normal weather patterns that could have impacted the crops appear to have caused no damage this season. Yields are in line with expectations although droughts are always a concern in the region of Piura as water allocation remains under the federal owned reservoirs north in Los Poechos and San Lorenzo. Both fresh fruit and industrial fruit prices are lower than previous levels at USD 128/mt and USD 65/mt respectively. Although the prices are, as usual, typically in proportion to each other they represent around half of what they did over 12 months ago, which clearly demonstrates the volatility of this market.

EXPRESSED LIME

Brazil

Brazil would normally be in the middle of their lime processing season, finishing around May/June, and they are in the northern regions of Sao Paulo. However, due to strong rains in November, followed by a very dry period, the south eastern region of Sao Paulo is seeing at least a 30% reduction in Tahitian lime crops from last year and they have already finished processing. Demand for fresh limes in the market has been strong forcing processors to pay higher prices, making things difficult for them as prices for lime oil are soft, like lemon (though not an exact science, lemon and lime prices tend to follow one another).

Mexico

Mexico will start processing Persian lime in June and, if an average crop, will run until October. In a few more weeks, growers will have a better idea about what this season's crop will look like; it is still a little early now to define numbers.

Over the last several months, there has been a surplus of oil in the market with little demand and softening prices. However, we are hearing from a number of sources that demand is starting to pick up with some Mexican processors sold out of 2018 oil, waiting for the new crop to begin.

GRAPEFRUIT

The Florida grapefruit season will be ending soon. This season has produced a much better crop than last year when grapefruit, already affected by citrus greening, was also directly impacted by Hurricane Irma. The fruit is a little smaller this year, but the official USDA forecast for March shows 5.4 mbx compared to the 3.88 mbx produced during last season. Of the 5.4 mbx for this year, less than 15% of that is of the white variety (800 thousand boxes). Even though grapefruit is known to have numerous health benefits - it is full of nutrients and low in calories - demand for the juice continues to decline, not giving growers much incentive to replant.

Not only has citrus greening affected the volume of fruit grown, droppage, and the size and quality of the fruit, it has also greatly affected the cost of running the groves. For example, just a few years ago, grapefruit trees in Florida were fertilized every three years, and now they must be fertilized every six weeks. This is due to citrus greening weakening the immune system of the trees. This extra fertilising has almost tripled the cost of the upkeep of the groves and eaten into the profits to the point where it is not very cost effective to grow and/or process grapefruit in Florida. 50% of grapefruit grown in Florida goes to the fresh fruit market and the rest to processing so white grapefruit oil remains scarce.

It is a different story in California. Most of what is grown in California is for fresh fruit and is harvested April to October. Thanks to heavy rains in grapefruit growing regions, the trees look very good and are expected to produce an abundance of fruit.

Prices for grapefruit oil, particularly white grapefruit oil, increased to unprecedented levels for an extended period over the last couple of years. These high prices and the very limited supply of oil have caused some evident reformulating but it appears the market is finally starting to stabilise.

ESSENTIAL
Oils

TEA TREE (AUSTRALIAN)

The Northern Rivers region, where around 80% of Australian tea tree is grown, experienced extremely dry conditions throughout the months of January and February which are historically the wettest months of the year for this area. The average rainfall for January is around 140mm but this year recorded an abysmal 1mm. Prior to this the lowest since records began was 20mm, recorded in the mid-1800s. Some rain has fallen since but this has done little to ease the drought. Because the ground is so dry rain, when it does come, is not easily absorbed and instead runs off. As a result, tree growth has been stunted and expectations are that the crop will be 30% down on previous years causing prices to rise. Harvest is commencing shortly and the situation should become clearer once complete.

ANISEED/ANETHOL (CHINESE)

Price and availability for aniseed oil appear to be holding stable for now. Most of the oil available is processed from leaves and branches with very little fruit, as most of the fruit has been snapped up by the fresh and pharmaceutical markets. The price of this grade of oil is not attractive to the producers, so supply could become tight before the spring harvest when fruits will become available again.

CARDAMOM

Following the flooding in Kerala, India, during August 2018, together with rising speculation amongst producers and some aggressive buying from seed exporters, oil prices have soared. No respite is expected before the next harvest in India which commences July/August and in Guatamala in September and supply is set to become more and more challenging.

EUCALYPTUS (CHINESE)

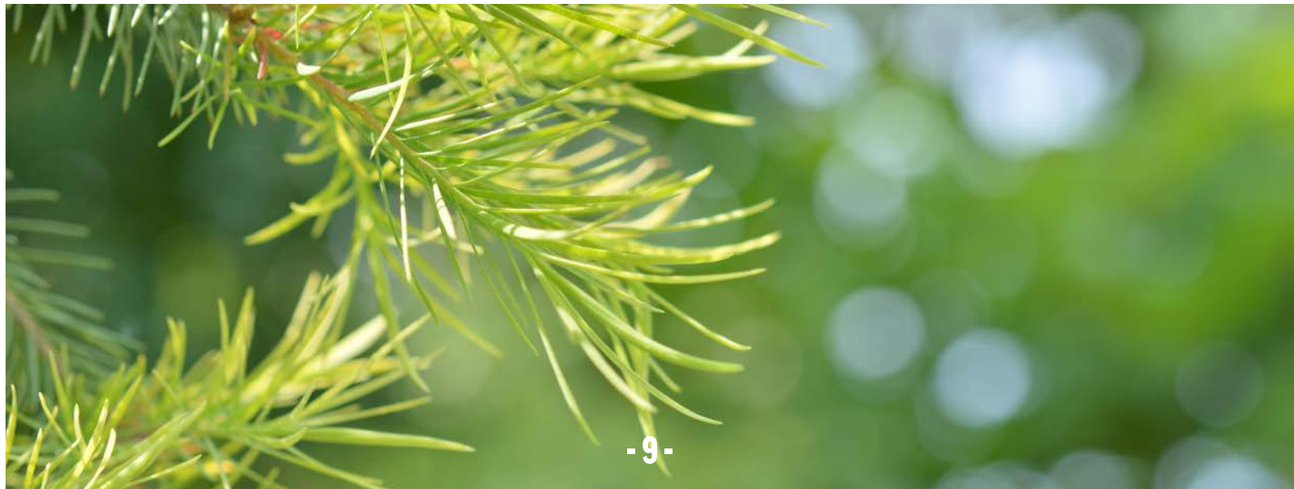
Demand for this oil has revived recently and demand is now outweighing supply. The annual fire ban, implemented by the local government during the dry season from January to April, preventing the production of crude oil is problematic enough. Further compounding availability are other issues such as the migration of young people to the cities (so no one to collect the raw material) and environmental protection orders. As a result, we are hearing prices are on the way up again.

CASSIA (CHINESE)

The price of this oil remains low. This is due to weak demand which is apparently a result of Vietnamese cassia now being used for the processing of natural benzaldehyde, and for export to the USA, who are trying to avoid the tariffs which have come into place as a result of the ongoing tariff war between China and the USA.

GARLIC (CHINESE)

The price for fresh garlic bulbs has rocketed with the bulb price rising from RMB 0.90/500 grams (gms) to RMB 2.50/500 gms. The lowest price recorded a year ago was RMB 0.35/500 gms. This, of course, affects the price of garlic oil which is also rising rapidly. Offers from origin are only valid for a couple of days at most as suppliers struggle to stay ahead of the price hikes. Quality has also become an issue recently with the possibility of adulteration in some instances.



CHEMICAL *Ingredients*

METHYLCYCLOPENTENOLONE

In our July 2018 Market Intelligence we reported that larger producers of Methylcyclopentenolone (MCP) were forced to restrict their production to less than half of their usual capacity, due to pollution controls, with this reduced supply then resulting in price increases. The following months then saw the tables turn and prices for MCP finally begin to decline, as a lot of manufacturers switched away from other, more competitive, synthetic chemicals to instead focus more production capacity on making MCP. For a short period of time this allowed supply to stabilise which was greatly needed, however this may be short lived as the three main producers have all increased their prices since the FIC.

STRAWBERRY FURANONE

Since our last update in November 2018, the situation with strawberry furanone is slowly beginning to improve. We are beginning to see offers in the market for new material, albeit at much higher prices than those seen last year. We are expecting prices to remain high for the short term, however, we do expect that prices will soften as more material becomes available in the market.

HELIOTROPINE

There has been a large factory fire in China involving the country's biggest producer of heliotropine. With indications that this will rule out any chance of further production for the next 12 months at least prices are steadily rising, and supply is becoming challenging as a result. We anticipate that this is another product where there may well be supply issues going into 2020.

MALTOL AND ETHYL MALTOL

A new factory has started producing ethyl maltol, which has led to the larger factories dropping their prices to remain competitive. As a direct result, improved availability and a softening of prices are being seen. Prices for maltol however, remain high, as demand stays strong and supply has been steady.

TURPENTINE

We continue to report on turpentine as the volatility of the market conditions we have seen over the last few years remains. Demand for gum rosin is still low, meaning the by-product gum turpentine is not being manufactured. Surprisingly, the last couple of months have seen some stability in pricing, which is a welcome relief for many. But this hasn't been reflected in the pricing for the derivative products, such as beta pinene, which remains very high. The China gum rosin trade conference is due to be held in May this year, which should provide updates on this market for the coming months.

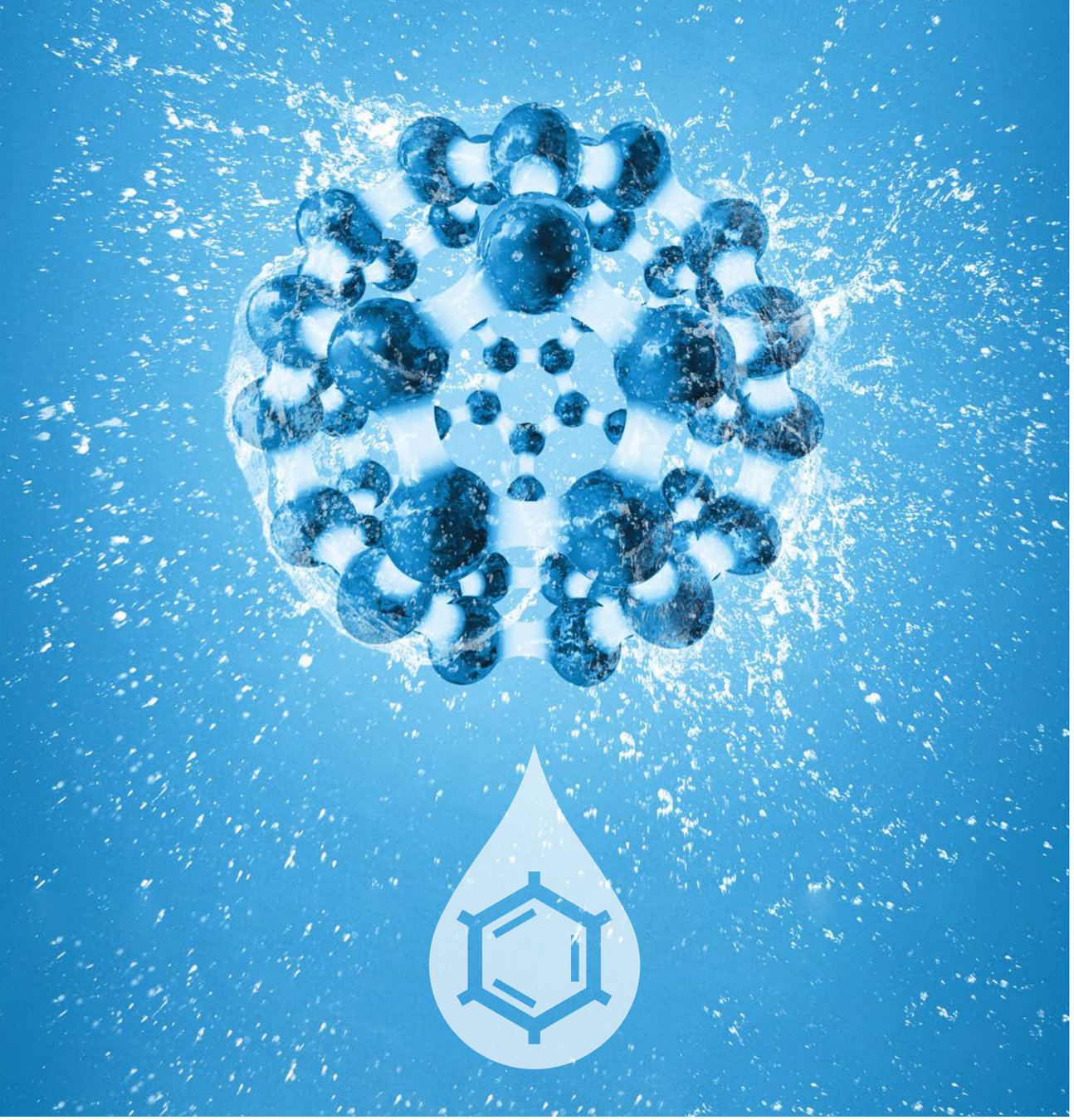
EUGENOL NATURAL

Consistent rainfall in Java, Indonesia (the area where clove is predominantly grown in the country), has limited the harvest because farmers have been unable to collect the cloves. To compound the issue, the clove that has been produced has a very low eugenol content so further processing is required, reducing the yield and making material more expensive. This has already started to impact the market, with prices rising steadily, and it is expected they are likely to rise further in the short term. Caryophyllene remains unaffected for now.

CIS-3-HEXENOL

We are seeing a shortage of material in the market, which has also had an effect on production of derivatives cis-3-hexenyl acetate, cis-3-hexenyl butyrate and cis-3-hexenyl salicylate since the end of 2018.

This shortage has risen as a direct result of routine maintenance undertaken by a major producer that fell behind schedule leading to production restarting much later than previously anticipated. With reduced supply in the market the recent increase in demand has caused already steep raw material prices to continue to rise. We anticipate supply could remain problematic over the next few months at least.

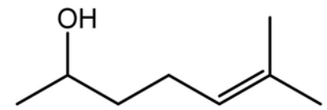


HIGH IMPACT *Chemicals*

CREATING A CERTAIN 'JE NE SAIS QUOI'

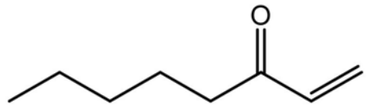
The artistic prowess of an experienced flavourist is still unmatched by technology. Outstanding flavours are much more than a combination of the volatiles detected analytically, they are created by replicating the notes and almost imperceptible nuances detected by a refined palate. Our range of speciality high impact chemicals are a toolbox necessity for creating flavours that are more than the sum of their parts.

6-METHYL-5-HEPTEN-2-OL (FEMA 4884) CAS: 1569-60-4



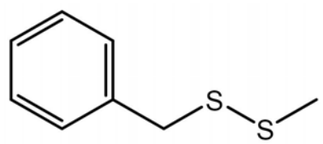
This recent addition to our portfolio enhances a whole host of flavours depending on the inclusion rate due to its green, floral profile. At levels of 1 ppm it adds authenticity to lemon whereas 0.5 ppm lifts the freshness and adds richness to tomato formulations. At 0.01 to 0.05 ppm it has the effect of elevating the overall freshness of such flavours as rose, ginger, cream and walnut amongst others. Nature identical in many herbs including lemongrass.

1-OCTEN-3-ONE (FEMA 3515) CAS: 4312-99-6



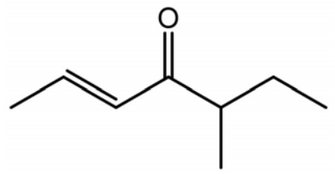
With an odour akin to the forest floor, this molecule is a key addition to vegetable flavours. Inclusion levels of 0.1 to 0.2 ppm provide earthy, musty and vegetative nuances – but can also enhance fishy notes. At lower than 0.1 ppm it adds extra depth to most formulations. Nature identical in cooked artichoke, soy beans and clover.

BENZYL METHYL DISULPHIDE (FEMA 3504) CAS: 699-10-5



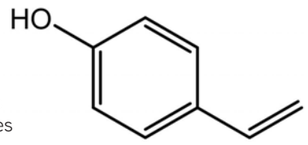
Green, metallic and vegetative notes can be enhanced with inclusion levels as low as 3 ppb. The most interesting aspect of this material is that in formulations it can react with thiols and other nucleophilic species to create new stable species that will be unique but reproducible and very difficult to match. Nature identical in roasted peanut and cocoa.

5-METHYL-2-HEPTEN-4-ONE (FEMA 3761) CAS: 81925-81-7



Vibrancy and authenticity are provided to formulations that include macadamia, pistachio, hazelnut and nutty chocolate as well as a tropical lift in exotic fruit flavours. This is typically employed at levels of 0.01-0.1 ppm in beverages and 5 to 10 ppm in baked good. Nature identical in Hazelnut.

4-VINYL PHENOL 10% IN PG (FEMA 3739) CAS: 2628-17-3



Crisp, clean phenolic overtones can be imparted to sweet flavours by inclusions of 0.5 to 1 ppm. This member of the phenol family has the ubiquitous medicinal note, but in a smoother format that excludes the inherent smokiness; making it ideal for formulations that include apple, green guava and vanilla as well as cooked meats. Nature identical in white wine and beer.

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