

fruit juice

ISSUE 54 - NOVEMBER/DECEMBER 2025

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Navigating the new packaging landscape

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Seasons greetings!

Welcome to the November/December issue of *Fruit Juice Focus*. A fruitful 2025 draws to an end, and despite pressures across the sector, including instability, impacting materials and logistic costs, climate change, extreme weather and supply chain vulnerabilities. The market remained resilient and continued to produce innovative products. Juices with functional benefits, reduced sugar content, and transparent sourcing were key for consumers this year, pushing manufacturers to reformulate and diversify their offerings.

Regulatory scrutiny of artificial additives and sugar content will continue in 2026 pushing manufacturers to invest in research and development towards healthier formulations. As ever we expect to see market turbulence and unpredictable conditions next year, but excitement for the unique products bound to come to market!

Thank you for reading, and we wish you a happy holidays.

Emma Preston, Editor, *Fruit Juice Focus*

If you have any comments or feature suggestions for future editions please contact me at emma@fruitjuicefocus.com

From the publishers of:





Navigating the new packaging landscape:

Preparing fruit juice brands for PPWR and beyond

Packaging is far more than a container; it's a crucial component of the product itself, safeguarding quality, extending shelf life, and serving as a vital point of connection between producer and consumer. Consumers increasingly expect brands to demonstrate responsibility, while regulation and investor scrutiny continue to intensify. For the fruit juice industry, balancing protection, practicality, and sustainability is becoming both a commercial and compliance imperative.

Written by **Charlotte Davies**, PISEP, Assoc MCIWM, Senior Consultant, Resource Efficiency and Circularity, CIWM Early Careers President and **Rob Lewis**, International Compliance Manager, *Beyondly Global Limited*

Current requirements for packaging in Europe

The European Commission implemented the Packaging and Packaging Waste Directive (PPWD) in 1994 to tackle the escalating environmental impact of packaging waste and harmonise member state approaches. Packaging management across Europe is similar, with producer responsibility schemes or Producer

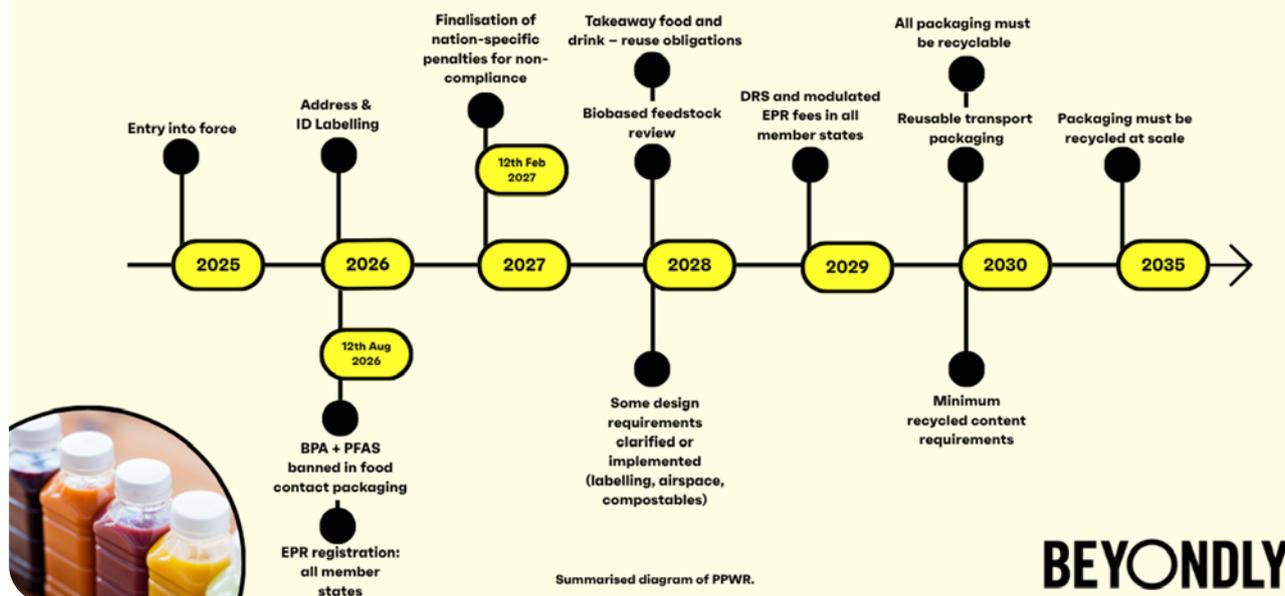
Responsibility Organisations (PROs) managing packaging recycling targets – gathering packaging data from producers to determine what material 'recycling' needs to be driven or offset.

Alongside the packaging producer responsibility requirements, some countries have implemented plastic taxes to reduce plastic packaging and incentivise recycled content.

The most notable plastic packaging taxes for single-use plastic packaging are seen in Spain at €450 per tonne and the UK at £223.69 per tonne, impacting plastic fruit juice bottles.

For a lot of European nations, packaging Deposit Return Schemes (DRSs) have also been a longstanding but active part of the packaging recovery system, particularly for beverage sectors, like some on-the-

PPWR Timeline for Implementation



go juice bottles. These schemes can be effective in closed loop recycling scenario, achieving record recycling rates of over 95%.

Packaging sorting and recyclability labelling is another area where mandatory requirements are growing.

- France introduced the Triman, a mandatory sorting label which aims to help the consumer to identify the packaging material with its designated receptacle.
- Italy and Bulgaria have mandated the alphanumeric material system (Decision 129/97/EC). Producers must indicate the packaging material using the relevant identification code. The system is recognised across Europe and can voluntarily be applied to packaging in all other EU member states.
- Spain implemented a mandatory labelling system from January 2025. It applies to all consumer packaging and is expected to reflect Spain's "Punto Limpio" consumer packaging disposal network. The labelling format is flexible but must inform

consumers of how to dispose of their packaging – typically using a colour coding system identifying material type with the correct bin.

- The Green Dot has not been a mandatory label since January 2023, with Spain being the last country to revoke the mandatory status.

Wider regulations such as the European Union's (EU) Single Use Plastics Directive (SUPD) also impacts packaging requirements. From July 2024, beverage containers with plastic caps/lids must have the cap attached during use. Juice PET, HDPE, and composite cartons with plastic closures are in scope, and most brands have now made the switch.

However, these systems are changing to align with the newly implemented Packaging and Packaging Waste Regulation (PPWR), which is due to take effect from August 2026 (implemented in February 2025 and superseding PPWD) introducing an array of packaging requirements for producers, importers, and manufacturers alike.

PPWR will transform the packaging sector, with aims to: prevent and reduce packaging waste, including through reuse and refill systems, make all packaging on the EU market recyclable by 2030, safely increase the use of recycled plastics, and decrease the use of virgin materials. The commission will achieve these goals through multiple phased requirements specifically for packaging recyclability, minimum recycled content, maximisation/empty space reductions, reuse and refill targets, restriction of harmful chemicals (such as BPA and PFAS), harmonised labelling and traceability, as well as the transition from Producer Responsibility to Extended Producer Responsibility (EPR) for member state packaging compliance systems.

PPWR – Timeline for Implementation

Changes to packaging take time, on average a minimum of 2 years, so businesses need to begin preparing for PPWR now. See our practical steps

for a fruit juice producer to get ahead now:

- **Short term:** Map where SKUs are sold and complete EPR registrations.
- **Medium term:** Redesign packaging and labelling, plan for EU harmonised labels by 2028, validate recycled content, assess recyclability, and account for eco-modulation costs.
- **Ongoing:** Collect detailed packaging data for compliance and cost optimisation.
- **Long term:** Model EPR fee scenarios to budget effectively; testing material choices early will support greater circularity and savings.

Ways that businesses can improve their practices to become more sustainable and meet regulatory targets

Despite the sometimes-overwhelming levels of packaging regulation, businesses can get ahead of the requirements, meet stakeholder needs, and gain the competitive advantage through targeting packaging sustainability.

Life cycle thinking: designing with the end in mind

Life cycle thinking is a critical skill when it comes to packaging and reducing environmental impact. Around 80% of a product's environmental impact is determined at the design stage, making this the single most influential moment in a package's life. A life cycle perspective goes beyond recyclability and asks a broader question: What is the total footprint of this packaging system from raw material to end of life? Design teams



Design decisions must always balance functionality, safety, and circularity

should evaluate not just material choice, but also production energy, sourcing, logistics, consumer use, and disposal as well as review 'the true purpose'. Design decisions must always balance functionality, safety, and circularity.

In an industry where freight and storage are major contributors to a product's carbon footprint, packaging efficiency often delivers quick wins. Maximising the ratio of product to packaging, for example, through efficient palletisation, lighter secondary packaging, or optimised pack shapes, can dramatically cut emissions per litre of juice transported, while also cutting EPR costs due to lighter packaging.

Regulations like PPWR will increasingly encourage this broader lens beyond just recyclability, as discussed above, with other criteria such as carbon intensity, recycled content, and reusability all shaping compliance costs. Taking a holistic view now helps future-proof packaging strategies as the definition of "environmentally preferable" evolves.

Prioritise waste prevention: Reuse

Under the waste hierarchy, reuse sits above recycling as the more sustainable option. Although not always straightforward, reuse and refill models are gaining traction as consumer attitudes shift, reverse logistics improve, and business

rethink strategy. From small scale longstanding milk bottle reuse to trials by major UK retailers such as Asda with a range of brands across different sectors, real-world examples demonstrate that reuse can deliver both carbon and cost savings. The Belgian beer bottle system is a great example of reuse, which for years has demonstrated effective reuse, achieving multiple refill cycles with minimal material loss resulting in a significantly lower life cycle footprint than single-use equivalents.

For the fruit juice sector, reuse could take different forms:

- Closed loop models within controlled environments such as hospitality or events where containers can be easily returned and washed.
- Open loop refill schemes for concentrated or bulk products, reducing packaging per serving.

Growing research, supported by organisations like WRAP, is mapping the environmental and business benefits of refill. The key is to align reuse design with logistics capability and consumer convenience while investing in durable packaging materials and formats that can withstand repeated cycles and keeping transport emissions in check.

Design for recyclability

For now, designing for recyclability remains the most direct and measurable way to reduce packaging

“ The EU is generally leading the way with regards to packaging practices and requirements



Example of DRS label for Australia system. Source: New South Wales Government Website

impact and meet emerging targets. The aim is simply to ensure that a pack can be readily collected, sorted, and reprocessed within existing infrastructure. Free and widely recognised tools such as RecyClass provide a valuable starting points and will likely form the basis of recyclability definitions adopted by PPWR. Its guidance translates the science behind collection, sorting, and recycling into clear design rules such as discouraging, for example, full-body sleeves on PET bottles due to sorting challenges or incompatible multilayer materials for reprocessing issues. Applying these frameworks early in the design process can help companies achieve the recyclability grades that future regulation and EPR schemes will demand.

Innovation remains essential, but it must be anchored in circular design principles. Biodegradable or bio-based alternatives, for example, can offer some environmental benefits but may not yet fit within established recycling systems, and are therefore only suitable in some scenarios.

Enabling circularity: Recycled content

Incorporating recycled content is another tangible step toward circularity, although challenges remain, particularly in securing consistent food grade supply and managing costs. Using recycled material can significantly lower carbon footprint and demonstrate visible commitment to sustainability.

For PET bottles, rPET availability is improving across Europe, driven by Deposit Return Schemes and clearer quality standards. Even modest percentages of recycled material can reduce lifecycle emissions and enhance a brand’s sustainability credentials. Examples of sandwich or A-B-A structures in packaging can enable recycled content while meeting food safety standards. As regulatory targets tighten, for 30% rPET mandated in beverage bottles by 2030 under the PPWR, early adoption helps smooth the transition and strengthen supply chain relationships.

Thoughts on the rules or practices outside of Europe

It is widely considered that the EU is generally leading the way with regards to packaging practices and requirements, and it is likely that PPWR requirements will have a global impact on packaging.

Looking to America and Canada, EPR for packaging is moving through a state-by-state roll-out with the likes of California, Oregon, Colorado, Minnesota, Maryland, and now Washington leading the way. Registration, reporting, eco-modulation, and recyclability assessments are all set to be regulated at state level. For businesses selling or planning to sell into the US, mapping EPR exposure and tracking developments in other states should be prioritised.

Canada similarly has EPR systems for packaging in place already which are regulated at provincial and territorial levels. EPR costs are set to rise, and data reporting obligations are expected to become more granular. A DRS system is also in place in many provinces.

Australia has a mandatory Container Deposit/Refund Scheme (CDS) which is administered nationally. Since 1 May 2025 when Tasmania's scheme began, Australia reached national coverage. If your business is the first to supply eligible drinks (generally 150ml-3l, including PET, glass, LPB cartons, cans) into a jurisdiction, you must register SKUs, pay the deposit and scheme fees, report your volumes, and keep your labels compliant. The labelling requirements are mandatory and require businesses to display a compliant barcode and a refund mark stating: "10c refund at collection depots/points in participating State/Territory of purchase".

On the EPR front, Australia does not yet have a fully mature EPR scheme for all packaging. The Australia Packaging Covenant Organisation (APCO) is operating a voluntary industry-led scheme which is following EPR-style principles. Reform work is ongoing with a mandatory EPR scheme and/or mechanisms gaining support.

Expectations for packaging in the future: What is to come?

The future of packaging in the fruit juice sector will be shaped by data, innovation, and collaboration. Comprehensive data collection is becoming non-negotiable, and businesses must establish baselines, track progress, and



The future of packaging in the fruit juice sector will be shaped by data, innovation, and collaboration

measure performance across their packaging portfolios. Companies that build strong data systems and engage suppliers early will adapt more easily to changing EPR and sustainability regulations. Robust data systems will underpin best-practice reporting, helping companies demonstrate accountability while gaining a competitive advantage through proactive compliance and transparency.

As regulations tighten, costs increase, and environmental expectations grow, the sector will need to continue to move up the waste hierarchy, prioritising waste prevention and reuse. Future strategies will likely emphasise innovative reuse solutions, with packaging designed for circularity and minimal waste. Wider developments such as the inclusion of waste incineration within the Emissions Trading Scheme (ETS) will further drive the need for recyclable or reusable materials to further mitigate waste management costs. In addition

to this, a collaborative supply chain will be essential, leveraging tools like digital product passports to enhance transparency and traceability.

Success will require a cross-functional approach, aligning sustainability, packaging design, marketing, and supplier expertise. By integrating environmental goals with functionality from the design stage, fruit juice producers can meet both regulatory demands and consumer expectations, creating packaging that protects the product while minimising environmental impact.

Beyondly is an environmental compliance scheme and sustainability specialist, offering UK and international packaging compliance services and guidance, as well as a range of bespoke sustainable packaging services to help your business get ahead of regulation, stakeholder requirements, and achieve best practice in the world of packaging. ●

About Beyondly Global Limited

Beyondly Global is a B Corp certified, government approved producer compliance scheme and sustainability consultancy. Beyondly help businesses become more confident about their environmental choices; from compliance obligations, contributing to a circular economy, and going beyond Net Zero.

The business' purpose is to lead, inspire, and educate to positively impact society and the environment. The company vision is to create a better, fairer, sustainable world for all.

Please contact solutions@beyond.ly and visit www.beyond.ly for more information or support.

green coco^{europe}



coconut water

- » Coconut water is the fastest growing segment in the European juice market «
- » Natural hydration – with essential electrolytes and minerals «
- » Health, functionality and sustainability drive the future of juice «

Source: IFU,
The Global Juice Market,
June 2025



coconut water adds taste – and value...

- > Enjoyed pure as a refreshing, healthy beverage.
- > Used as a natural ingredient in juice blends and functional applications.
- > Naturally rich in potassium & electrolytes for health and hydration.
- > Strongest growth driver in juice and functional beverages.
- > Unique innovation potential with NFC and world's first aseptic sterile 60 Brix concentrate.

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Latest juice industry news...

SOUTH AFRICA

South Africa's exporters to benefit from Maersk's USD100 million+ investment in cold chain infrastructure

Maersk, a global leader in integrated logistics, has inaugurated a facility in Cape Town, the Belcon Cold Store, marking a significant milestone in the company's USD100 million+ investment in South Africa's cold chain infrastructure. This strategic investment demonstrates Maersk's long-term commitment to the region's economy and its dedication to delivering value to the nation's businesses and people.

South Africa's cold-chain exports are dominated by fresh fruit, in particular citrus and grapes.

Lubabalo Mtya, Managing Director of Maersk Southern Africa & Islands explained "Maersk has been invested and present in South Africa for over three decades, and our ambition has never been stronger. We are committed to building and delivering logistics solutions that create tangible value for our customers and their businesses, while contributing to South Africa's economic prosperity and the livelihoods of its people."

There was a need to strengthen South Africa's cold chain infrastructure to minimise previous losses from delays and broken cold chains. The Belcon Cold Store directly addresses this critical gap in the market.

Maersk.com

VIETNAM

Vietnamese pomelos to enter Australia

Pomelo has become the eighth Vietnamese fruit permitted to enter the Australian market, following dragon fruit, mango, longan, rambutan, lychee, star apple, and passion fruit. With Australian blueberries now the next fruit allowed into Vietnam, after grapes, oranges, mandarins, cherries, peaches, nectarines, and plums.

A ceremony took place in October to mark the occasion. The Deputy Minister of Agriculture and Environment Hoang Trung said "the milestone reflects

the trustful and mutually beneficial cooperation between the two countries. It also demonstrates their shared commitment to sustainable development for the benefit of farmers and consumers in both nations, in line with the strong and comprehensive strategic partnership between Vietnam and Australia".

The Plant Production and Protection Department will work with local specialised agencies to ensure phytosanitary and food safety requirements for exports and met, and provide training, disseminate regulations, and guide the establishment and certification of growing areas and packing facilities for export.

Vietnam is the world's second-largest pomelo producer, with about 110,000 ha under cultivation and an annual output of over 1.2 million tonnes.

Vietnamplus.vn

UK

Tetra Pak announces AI investment at Scottish MRF to boost carton sorting

Tetra Pak has announced the final phase of a three-part 2025 investment programme to upgrade food and beverage carton sorting capabilities in the UK: the installation of AI-powered optical sorting technology for the first time in Scotland.

Tetra Pak has financed the production and installation of innovative AI-powered optical sorting technology at Levenseat Resource Management's materials recycling facility (MRF) in Central Scotland, in collaboration with British technology start-up, Recycleye. The technology, known as Recycleye QuantiSort, uses AI and cameras to detect beverage cartons within the mixed materials waste stream, and pneumatic valves are then used to eject them so that they can be sent on to be recycled.

This upgrade will enable Levenseat Resource Management to enhance the sorting of food and beverage cartons for recycling. The company serves a large area, including Lanarkshire, Ayrshire and Dumbartonshire.

The announcement of funding for Levenseat follows two other upgrades at MRFs earlier in the year, bringing Tetra Pak's total investment in UK sorting infrastructure

in 2025 to GBP1.4 million. As the first site announced in May, J&B Recycling in Hartlepool received two new robotic sorting arms, also produced by Recycleye. In July, Cumbria Waste Management in Carlisle became the first site in the UK to use the Recycleye QuantiSort®, with the technology having previously been used at MRFs in Spain.

This work in the UK is part of Tetra Pak’s wider annual commitment of over GBP34 million per year to expand food and beverage carton collection, sorting and recycling infrastructure globally, in collaboration with stakeholders across the value chain. Of this, GBP2.4 million from Tetra Pak has been ringfenced specifically for infrastructure to sort food and beverage cartons in the UK.

This final round of Tetra Pak’s 2025 investment in sorting infrastructure marks a milestone in the company’s long-standing work collaborating with UK legislators

and local authorities to improve the collection, sorting and recycling of food and beverage cartons.

The timing of this investment at a Scottish MRF is significant given the work being undertaken as part of the Circular Economy Act. This includes Tetra Pak working with the Scottish Government to ensure cartons are included in the updated Code of Practice for local authorities, which will create a consistent approach to recycling and help to reduce consumer confusion regarding what they can recycle.

This mirrors efforts made by Tetra Pak to assist the government in England in the development of Simpler Recycling. This will create a consistent approach to collections and is expected to substantially increase the collection of food and beverage cartons at kerbside across England, making effective sorting infrastructure for recycling cartons across the UK even more necessary.

Press Release, Tetra Pak



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Apple



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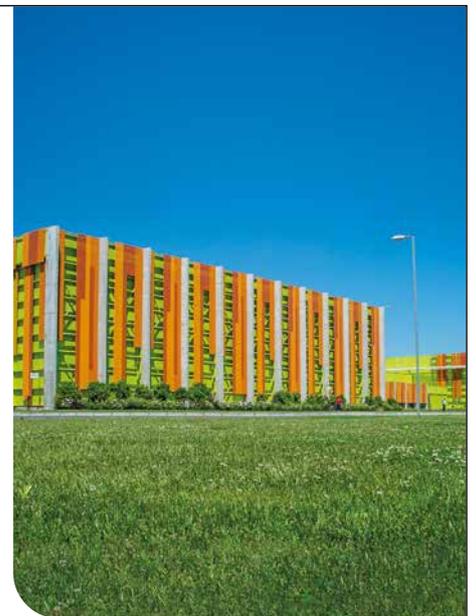


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SCAN AND INQUIRE WITH US!

USA

Tropicana Brands Group announce new CEO

Tropicana Brands has announced the appointment of Paul Chibe as Chief Executive Officer.

Frédéric Stévenin, Co-Managing Partner, PAI Partners and Chairman of the Board, TBG, commented, "We are excited to welcome Paul as TBG's new CEO and look forward to working with him to build the company's next chapter of growth and value creation. Paul's experience driving growth through innovation, adapting to a dynamic consumer landscape and integrating complex operating environments will be impactful at TBG. We want to thank Glen for his leadership during TBG's transition as a standalone company."

Chibe has over 25 years of consumer goods and beverage industry leadership experience; most recently serving as CEO of Pabst Brewing Company, a large North American privately held brewing company. Prior to this he was President and CEO of Ferrero North America, U.S. Chief Marketing Officer at Anheuser-Busch InBev, and held senior leadership positions at Wrigley.

"Joining TBG is an incredible opportunity to lead a portfolio of some of the most beloved brands in the beverage industry," said Chibe. "It's that brand equity coupled with a commitment to quality, and talented team that provide a strong foundation for growth. I look forward to working together to accelerate innovation and capture new opportunities across the evolving beverage landscape."

Tropicanabrandsgroup.com

USA

Sunkist Growers, Inc. and Fruit Growers Supply company jointly announce strategic reorganisation

Sunkist Growers, Inc. a citrus cooperative founded in 1893, announced that it and Fruit Growers Supply Company, its sister supply company founded in 1907, will strategically reorganise effective 1 November 2025. A new California cooperative, 'Sunkist Growers,' is being formed and will serve as the holding company of the existing Sunkist Growers and Fruit Growers Supply Company. This strategic move will better position the

combined entity to serve customers and growers with enhanced innovation and efficiency, as well as driving future growth in the citrus industry.

"We are excited to bring together the deep sales and marketing experience of Sunkist with the supply chain expertise of Fruit Growers Supply. This will allow for a more seamless experience for both customers and growers," said Jim Phillips, President and CEO of Sunkist and Fruit Growers Supply.

Since adopting a shared management structure in 2017, Sunkist and Fruit Growers Supply have increasingly aligned their operations. Both organizations have seen significant benefits from closer cooperation and see further strategic benefit to the reorganization of the two entities. This marks the beginning of the next phase of transformation and reflects a natural evolution of the partnership that management has developed. The Sunkist and Fruit Growers Supply Boards have approved a new five-year strategic plan to ensure there is a clear vision for the future and growth path as the combined entity moves forward.

"Sunkist and Fruit Growers Supply have been operating as sister companies for over a century, and we anticipate this reorganization will allow the combined entity to better prepare for a rapidly evolving citrus market. With the changes that have been made over the past several years, we are in an excellent position to enter the next phase of growth as one company," said Gerald Denni, Sunkist and Fruit Growers Supply Chairman of the Board.

The leadership team of the parent company will be composed of key leaders from both Sunkist and Fruit Growers Supply, ensuring continuity and a smooth transition for customers, growers, and employees.

sunkist.com

USA

Fruit juice company investing USD200 million in massive New Jersey production facility

Canadian beverage manufacturer Lassonde Industries Inc. is planning to build a new USD200 million beverage manufacturing facility in Cumberland County.

The company says the 200,000-square-foot facility will be built adjacent to its existing plant on Parsonage Road in Upper Deerfield Township over a two-year period.

The new facility will replace the current plant and is designed to improve operating efficiency while delivering increased volume at lower costs, Lassonde said in a statement.

A spokesperson for Lassonde said the company "is working through the permitting process with the township."

Production activities will start to be transferred beginning in 2026 and the transition is expected to be completed in 2027.

Lassonde's facility in New Jersey produces juices and cranberry sauce.

Amanda Burns, president of Private Label at Lassonde Pappas and Company Inc., said township officials were championing the project.

"The support we have received from Upper Deerfield Township and Cumberland County in New Jersey has

been instrumental in making this new facility a reality," Burns said in a statement.

"For several decades our U.S. business has called Cumberland County home and this investment further underscores our long-standing commitment to the community," she said.

nj.com

NETHERLANDS

Dutch juice producers urge government to exempt pure juices from sugar tax

Dutch fruit and vegetable juice producers are calling on the government to exempt their products from the sugar tax, arguing that pure juices should not be treated the same as soda and energy drinks. The tax, which applies to fruit juices as well as sugary soft drinks,

The Moroccan specialist in fruit-based products



- Citrus juice concentrates (Orange, Mandarin, Blood Orange, Lemon)
- NFC citrus juices (Orange, Mandarin, Blood Orange, Lemon)
- Tomato paste
- Fruit compounds
- Citrus essential oils



MOROCCAN FOOD PROCESSING
Al Mariniyine street, Industrial Zone, BERRECHID, Morocco.



was raised from 8.83 Euro cents per litre to 26.13 Euro cents per litre on January 1, 2024.

Albert Schulp, founder of Schulp Vruchtensappen, said the higher tax has hurt sales. "10% less over the last two years for all fruit juices. Meanwhile, energy drinks have risen 10% despite the tax increase," he told RTL. "We find it really frustrating to be treated the same way as soda and energy drinks."

Smaller brands, like G'nger & Van Kempen Fruitsappen, have absorbed the increase. "We didn't raise prices on our ginger products; we swallowed the increase ourselves. Ginger naturally contains almost no sugar, which makes the sugar tax especially unfair on these products," owner Margreet Apeldoorn said.

Appelsientje previously avoided the tax by adding a small amount of dairy to its drinks, a loophole the government now plans to close. The Tweede Kamer and Eerste Kamer must still approve the new rules.

Researchers are divided on health effects. Floor Scheffers told RTL that pure juice is not as harmful as soda. "People who drank up to seven glasses of juice per week had a lower risk of cardiovascular disease than those who drank none," she said. "Fruit juice is not as healthy as fruit, but also not as unhealthy as soft drinks. It sits in between."

Producers are turning to politics to influence the debate. Henk Vermeer, Tweede Kamer member for BBB, called the tax an "absurd incentive." "A fresh bottle of apple juice is not a bottle of cola," he said. Vermeer favours raising taxes on drinks with added sugar while exempting pure juices.

Producers hope lawmakers adopt a model similar to the U.K., which taxes only added sugars, leaving natural sugars in fruit and vegetable juices untaxed.

The Tweede Kamer will debate extending the sugar tax to beverages with added dairy, such as Fristi and Chocomel, while leaving mineral water, unsweetened dairy, and soy drinks exempt.

In March 2024, juice maker Appelsientje skirted the recently increased Dutch sugar tax by introducing "Appelsientje FruitDrink," a fruit juice containing a tiny amount of dairy. The addition, as little as 0.02% milk fat, exempts the drink from the consumption tax on non-alcoholic beverages, which had nearly tripled earlier that year to 26 Euro cents per litre for soft drinks, energy drinks, and fruit juices.

nltimes.nl

EUROPE

Pan Jamaica buys another juice company in Europe

Pan Jamaica Group Limited has added another company to its portfolio, having acquired majority ownership of a juice business based in Copenhagen, Denmark. The terms of the acquisition of Frankly Juice were not disclosed. Those details should emerge when the company produces its year-end financial report.

The purchase further boosts Pan Jam's speciality foods division, which already brings in the majority of the conglomerate's revenues from among its business streams, the others being property, financial services, and logistics or global services.

Pan Jam has taken a 64% stake in the Scandinavian juice company, which manufactures organic, cold-pressed juices, further strengthening The Juicy Group, which is the name given to its speciality foods and drinks operations in Europe.

"This move gives us a foothold in markets with the highest purchasing power," said Jeffrey Hall, CEO and vice chairman of Pan Jamaica. "We've done the acquisitions now; the work is to build on that platform," he said.

The rest of the speciality foods operations in this region fall under The Caribbean Food Group. Pan Jam announced the acquisition of Frankly Juice as it reported on its results for the September quarter. The deal happened after the close of the quarter.

Over nine months, January-September, the conglomerate reported 81% growth in profit to USD6.8 billion from USD33 billion in revenue, third quarter earnings contributing USD2.2 billion. Revenues for the quarter climbed 20% to USD11.8 billion.

In an interview with the Financial Gleaner, Hall described the fresh juice segment as "among the fastest-growing categories in Europe", noting that Pan Jamaica now holds strong positions in the Netherlands, Belgium, and Nordic markets, with operations also in Germany, Spain and France.

The company operates four factories in Europe. "We have a lot of confidence in the prospects for the fresh juice business within our speciality foods segment. The numbers support that confidence," Hall said, pointing to a 102% increase in segment profit speciality foods year-to-date.

jamaica-gleaner.com ●

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fruitdor.ca



A guide to juice cleanses

We are often asked the question, “are juice cleanses safe, and are they healthy?”. Ro Huntriss, Clinical Lead Dietitian at EXALT shares her thoughts in this guide. Here is the essential information you need to know about juice cleanses.

What is a juice ‘cleanse’?

A juice cleanse is generally marketed as a ‘detox’ diet where liquefied fruit and vegetables are consumed for a short period of time. These juice cleanses often come with claims of weight loss, detoxing the body, supercharging your energy levels and boosting your immunity. Choosing the right way to take part in juice cleanses: with juices made for juice cleanses can be a way to support your health and mindset. While these ‘cleanses’ are not always what they make out to be, they can be a way to reassess your diet, lifestyle, and make a change to begin healthy habits going forward.

Are juice cleanses healthy?

Juice cleanses can be healthy. However, depending on how you go about taking part, they may not be as

healthy as they seem. It’s important to choose the best cold pressed juices, made from quality ingredients and containing all the juice cleanse benefits you need.

Poor ingredients

Juice cleanses typically consist of just fruit juice and water. This leaves you feeling hungry, tired and can cause nutritional deficiencies.

Low in protein

Juice cleanse diets lack protein, which is required for maintenance of muscle mass. Another reason why we need protein is to support the body with growth, repair and hormone production. Not intaking enough protein can lead to unwanted health problems.

Dubious pseudo-science

Juice cleanses may come with claims of ‘detoxing’ the body. They may suggest you’ll be looking & feeling younger, with supercharged energy levels and ‘boosted’ immunity. However, these claims are unlikely to be backed by any reliable, peer-reviewed studies.

Unsustainable expectations

Weight loss through many juice cleanses is because you are not eating enough or getting enough calories per day. When you finish, it can mean that any weight you may have lost returns, as your body protects itself against future shocks.

Potentially harmful to your health

A juice cleanse diet made up exclusively of juice may not contain the essential nutrients needed for daily bodily health.

// Claims that a juice cleanse can 'detoxify' the body are not accurate

Juice cleanse drinks often lack fibre. This means the sugar content is absorbed into the blood quickly, thus increasing the potential for harmful side effects.

Do juice cleanses work?

Along with there being a lack of scientific evidence to show that juice cleanse diets can significantly benefit our health, they could in fact be harmful. Consuming fruit and vegetables in the form of juices is not bad for you. Juices do contain antioxidant nutrients and folate, and they can increase your nutritional intake. However, a diet made up exclusively of juice is often deficient in protein, healthy fats, vitamin B12, and fibre.

When juiced, fruit and vegetables lose the majority of their fibre. This means the sugar content is absorbed into the blood quickly. This can increase the risk of hunger, mood swings and cravings. All of these are undesirable consequences of following a juice cleanse.

Juice cleanse diets also lack protein which is required for maintenance of muscle mass as well as to support the



body with growth and repair as well as hormone production. Consuming too little protein can also result in anaemia, physical weakness, oedema and impaired immunity. Protein and fibre also help keep us feeling full, so it is important that your juice cleanse include these essential ingredients.

Claims that a juice cleanse can 'detoxify' the body are not accurate. Detoxification is a process that is carried out in a highly sophisticated way by our liver, kidneys, lungs and colon to remove toxins such as ammonia, waste products, drugs and alcohol. There is no scientific evidence to suggest diet can aid these processes.

A further unpleasant side effect of juicing can be diarrhoea; juice enthusiasts often suggest this is a sign your body is ridding itself of toxic substances. However, this is not the case. The reason for this side effect is because of the high fructose content of the juice cleanse. This can lead to poor water absorption, therefore risking electrolyte imbalance, headaches, and fatigue.

Can you lose weight from a juice cleanse?

Many people may use a cleanse as a method to lose weight, as well as other methods such as intermittent fasting. Juice cleanse diets provide a

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Juice cleanses

very low calorie content compared to what our bodies require. Therefore, you may lose weight when following such a “detox”. This is because you are in a significant calorie deficit. You may lose fat mass, but you could also lose water mass too. When you follow a low-carbohydrate diet such as a juice cleanse, your body may drop water weight.

Water is generally used to store carbohydrates in the body in the form of glycogen. When our carbohydrate intake drops, our glycogen stores are depleted. This means the water is no longer needed to store it, resulting in a water weight loss.

Due to this major calorie restriction, juice cleanses are often only sustainable for a short amount of time. These intense diets should not be followed for a prolonged period of time due to the insufficient nutrient provision they can offer. Your body isn't getting all the essential vitamins and minerals it needs, such as vitamin D. Inevitably, many find that they quickly return to their usual eating habits and patterns before too long. This usually means any weight loss experienced from a juice cleanse is unsustainable and temporary.

How to do a juice cleanse, with EXALT

A juice cleanse can be done in a healthy, balanced way. They may help you feel on track of your diet, exercise, and lifestyle. It's important to go about them in the right way. EXALT's high protein juice cleanses are designed by our Clinical Lead Dietitian to contribute to a healthier, sustainable weight loss technique.

- Try the EXALT Life juice cleanse and choose from 1 to 14 days of great tasting juices and protein smoothies to guide you through.

Our fresh meal replacement drinks contain all the nutritional support you need to replace a meal and keep working out alongside your cleanse.



Find the right EXALT Life Cleanse for you

Looking for a refresh? Whether you need a quick reset or a complete reboot, EXALT Life has the perfect cleanse for you:

- 1 Day Juice Cleanse – A short but effective reset. Includes 7 drinks: 4 protein smoothies and 3 juices.
- 3 Day Juice Cleanse – A deeper refresh to help you feel revitalized. Comes with 12 smoothies and 6 juices.
- 5 Day Juice Cleanse – A full-body reboot designed for noticeable results. Includes 20 smoothies and 10 juices.

- 7 Day Juice Cleanse – A week-long cleanse for sustained nourishment and renewal. Comes with 28 smoothies and 14 juices.

- 14 Day Juice Cleanse – The ultimate transformation. A complete detox with 56 smoothies and 28 juices.

Losing weight healthily

Losing weight at a realistic pace for you is the healthiest way to reach a healthy weight and to maintain this long-term. It is recommended that to lose on average 1 lb per week, you need to create a calorie deficit of 500 calories per day.

General advice recommends eating three regular, balanced meals, whilst

exercising portion control, and substituting high-calorie food for healthier, lower-calorie alternatives. Exercising alongside this can further help to aid weight loss and keep you healthy, helping you to reach your goals. Practising the 3 R's of exercise recovery with post workout recovery is essential to staying on target and healthy at the same time.

If you have any health conditions or take medication, you should seek advice from a registered dietitian,

nutritionist or your GP before embarking on any weight loss intervention and before taking part in a juice cleanse.

EXALT smoothies and protein powder

At EXALT, we specialise in great tasting drinks and nutritional blends to support your healthy lifestyle alongside your workout. From breakfast smoothies to start the day,

to pre-workout and protein powder, try our recipes designed by experts.

One EXALT high protein smoothie provides all 9 essential amino acids, as well as a range of antioxidants, vitamins, minerals, and all three macronutrients (carbohydrates, protein and healthy fats). Its three-phase release of the protein can help to keep you feeling fuller for longer with a sustained protein release over seven hours to stave off hunger and cravings. ●

About EXALT

EXALT began in the winter of 2019 with a clear belief that real nutrition should taste incredible. The brand creates fresh cold pressed juices and high-performance protein smoothies made with all natural whole food ingredients. Every bottle is crafted to fuel busy lives and ambitious goals with real food that the body knows how to use. No fuss. No artificial nonsense. Simply powerful nutrition bottled with care and served with purpose.

Discover EXALT raw cold pressed nutrition protein smoothies and juice cleanses [here](#).









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Citrus greening and its management in citrus trees

Citrus is a globally important horticultural crop, producing an average annual yield of over 124,000 thousand tons. Cultivated in over 140 countries, citrus thrives in diverse agroecological zones, including arid and semi-arid regions. However, Huanglongbing (HLB), commonly known as citrus greening, poses a severe threat to global citrus production.

Written by **Ishwor Shrestha**, Agricultural Specialist and Vice President of Project Planning, *IAAS Nepal*

This devastating disease affects all citrus varieties within the Rutaceae family. Sweet oranges and mandarins are highly susceptible, while limes, lemons, and trifoliolate oranges show greater resistance. Losses caused by HLB are significant: 22% for Kinnow, 25-40% for sweet oranges, 15% for grapefruits, 10% for sweet limes, and 2% for lemons.

Causes of citrus greening

The primary vectors of citrus greening are the Asian Citrus Psyllid (ACP) (*Diaphorina citri*) and the African Citrus Psyllid (*Trioza erytreae*). ACP thrives in warm conditions (heat-resistant), while *Trioza erytreae* is rain- and humidity-tolerant but heat-sensitive. These psyllids transmit the gram-negative bacterium that causes HLB and damage plants by feeding on sap, excreting honeydew, and fostering sooty mould growth.

The three bacterial species responsible for HLB include:

- **Asian form:** Candidatus *Liberibacter asiaticus* (heat-tolerant)
- **African form:** Candidatus *Liberibacter africanus* (heat-sensitive)
- **American form:** Candidatus *Liberibacter americanus* (heat-sensitive)

Symptoms

HLB symptoms depend on the tree's age, infection stage, and timing. Key symptoms include:

- Leaf mottling
- Premature leaf drop
- Bitter fruits
- Poor root development
- Plant death

Leaf symptoms

Infected trees experience excessive leaf shedding, off-season blooms, and severe dieback. Symptoms fall into two categories:

“ Citrus greening, poses a severe threat to global citrus production

- **Primary symptoms:** Yellowing of leaves with blotchy mottling.
- **Secondary symptoms:** Smaller leaves with chlorotic patterns resembling zinc or iron deficiencies.

LB disease is sometimes confused with micronutrient deficiencies such as zinc. Zinc deficiency typically results in symmetrical chlorosis on both sides of the leaves, while greening disease causes an irregular, asymmetrical mottling without a consistent pattern in citrus leaves.



Infected lemon fruit

Yellow shoots symptoms

Blotchy mottling on shoots and branches is a distinctive HLB sign. The discoloration originates from veins and intensifies during cooler seasons.

Fruit symptoms

Affected fruits display green patches, yellowing near the peduncle, and waxy rind marks when pressed. Infected fruits are prone to decay, premature drop, and reduced sugar levels. Compared to healthy fruits, those impacted by HLB are less responsive to post-harvest de-greening treatments.

Juice quality

HLB-affected fruit exhibits off-flavours due to reduced sugar levels and increased concentrations of bitter compounds such as limonoids,

Infected trees experience excessive leaf shedding, off-season blooms, and severe dieback

flavonoids, and terpenoid volatiles. An alternative approach to lessen these bitter compounds in affected citrus fruits is the use of resins.

Root symptoms

HLB severely damages fibrous roots, leading to poor nutrient distribution and root decay.

Management strategies for citrus greening

Here are some management strategies aimed at controlling vectors and reducing the persistence of HLB disease:

Quarantine and regulation

The geographic spread of Asian citrus psyllid and citrus greening continues to widen, with most management interventions proving largely ineffective. The primary approach for managing HLB involves removing infected plants, which has a direct impact on the grower's finances. Therefore, effective collaboration among growers is essential. Legislative actions have also been implemented to control the spread of pathogens. The following controls need to be established:

FEATURE

Citrus greening disease

- 1. Regulated plants:** Rutaceae family, *Poncirus trifoliata*, *Fortunella* species, and live citrus plants.
- 2. Regulated pathogens and insects:** Citrus greening bacteria and citrus psylla.
- 3. Protection of mother stock.**

Use of tolerant rootstocks

- US-897 (*Citrus reticulata* Blanco × *Poncirus trifoliata* L. Ra.)
- US-802 (*Citrus maxima* × *Poncirus trifoliata*) and
- US-812 ('Sunki' mandarin × 'Benecke' trifoliata orange)

Irrigation, nutrition management, and hormones

Various commercial citrus varieties require an adequate supply of macronutrients to mitigate the effects of citrus greening disease. For mandarin trees, it is recommended to apply 475 g of nitrogen (N), 320 g of phosphorus (P₂O₅), and 355 g of potassium (K₂O) per tree annually. In addition, micronutrient supplementation with copper sulfate, iron sulfate, and zinc sulfate are advised at a rate of 50 g per tree, either through soil application or via foliar spray at a 0.5% concentration. Fertigation and controlled-release fertilizers have been identified as effective nutrient-delivery methods. Brassinosteroids, a novel group of phytohormones, have shown potential in managing HLB by reducing symptoms during early bloom, reducing fruit drop, and enhancing yields.

Biological control

Biological agents like parasitoids (*Tamarixia radiata*, *Diaphorencyrtus aligarhensis*) and entomopathogenic fungi (*Beauveria bassiana*) effectively manage ACP populations.



Sustained research and adoption of these measures are vital to restoring citrus orchard health

Chemical control

Applying dimethoate 30% EC to the leaves at a concentration of 1 ml/litre of water before the blossoming period effectively reduces psyllid populations. 50% Malathion EC, 44% Dimethoate, and 40.64% carbofuran FP revealed potent psylla control. Penicillin carbendazim also effectively controls psylla. Intensive insecticide application during peak citrus flushes effectively reduces ACP populations. Horticultural oils and Insect Growth Regulators (IGRs) have proven more effective in targeting psyllid eggs and nymphs than adult psyllids.

Carbenicillin, ampicillin, cephalixin, oxytetracycline (OTC), penicillin, rifampicin, streptomycin sulfate, and sulfadimethoxine have demonstrated significant effectiveness in reducing pathogen populations in affected trees.

Intercropping with guava

Inter-planting citrus with guava helps decrease Asian citrus psyllid infestations, thereby reducing the incidence of HLB. This phenomenon is believed to result from the volatile compounds in guava that deter psyllids or hinder their ability to find and infest citrus trees. Specifically, terpenoids in guava are responsible for repelling psyllids.

Physical and chemical repellents

Physical repellents such as kaolin clay particle film and metalized polyethylene mulch, which repel citrus psyllids. Additionally, pest exclusion nets are effective in preventing psyllids from accessing citrus trees and crucial to keep trees HLB-free in the early growth stages. Volatile compounds found in garlic chives such as disulfides and trisulfides, along with volatile oils from non-host plants like *Lantana camara*, *Mikania micrantha* and *Eupatorium catarium*, have been shown to effectively reduce psyllid populations.

Tree removal and replacement

Severely infected trees (50–70%) should be removed to prevent further disease spread.

Other management practices

Effective management of citrus psyllids requires timely pesticide application, which involves pest monitoring through scouting and the use of yellow sticky traps to determine the optimal timing for control actions. Research has shown that trees treated with oak extract showed improved stomatal conductance, increased chlorophyll content, and nitrogen uptake.

Strategies for managing HLB include foliar spraying, root drenching, and trunk injection of antibiotics.

Conclusion

Citrus greening is a major threat to the global citrus industry, manifesting through mottled leaves, defoliation, fruit distortion, and tree death. While there is no definitive cure, integrated management strategies—combining quarantine, biological control, nutrient management, and vector control—can mitigate the disease’s impact.

Sustained research and adoption of these measures are vital to restoring citrus orchard health and productivity worldwide. ●

About Wikifarmer

Wikifarmer is a global platform dedicated to empowering the agricultural sector through knowledge, education, and fair trade. Recognized by the FAO as “the Wikipedia of Farming,” it hosts the world’s largest open-access agricultural library, available in 17 languages. Its B2B Marketplace connects trusted producers directly with business buyers, while the Wikifarmer Academy provides expert-led courses for farmers and agri-food professionals. Together, these initiatives promote sustainability, efficiency, and equal opportunities in agriculture worldwide.

About the author

Ishwor Shrestha is a B.Sc. Agriculture student at Agriculture and Forestry University, Nepal, and the Vice President of IAAS Nepal. He serves as the Vice President of IAAS Nepal 2024.25 where he is actively involved in promoting innovative agricultural practices and fostering youth engagement in agriculture. Ishwor has ideated and successfully led two impactful global projects: Heliculture: A Hope to Be Flourished, which explored the potential of snail farming, and Trash to Treasure, which focused on converting agricultural residues into value-added products.

To learn more, visit [Citrus Greening and Its Management in Citrus Trees | Wikifarmer](#)

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FCOJ and FCOJ futures market

Orange Juice futures have been slowly but surely working lower this year, and this has also been true for the latest to month period. The daily and weekly charts show that futures are attempting to set up a sideways range, but the month charts show additional weakness for the market. *Jack Scoville reports.*

There is a chance that futures could move back to previous lows near 100 cents per pound last seen in 2020. Bare in mind that futures were 589 cents per pound in 2024. It has been five years of big price changes for the market caused by the weather but also tariffs and other trade issues. Plus the development of the greening disease greatly affected production prospects in Florida. But, all of that is in the past now.

US weather has been good for the crops in Florida this year. It is now turning drier in the state, but this is normal. Irrigation will be used to keep the trees in good condition. Crops in Texas and Mexico are reported to be in mostly good condition. A cold snap was reported in the state earlier this week but did not do any damage as there is

still too much warmth in the soils and still too much sunlight in the sky to keep a freeze away. It was a reminder of what time of year it is, and the cold air will keep traders alert for the next very cold snap that might happen in January or February. Texas has seen a lot of rain this year so the trees should be well supported. Brazil suffered from a freeze earlier in the growing season, but this does not seem to have affected juice production much if at all. The weather in Sao Paulo is currently turning wetter with showers returning and warm temperatures and crop conditions are reported to be good.

The market is still relatively cheap as prices were previously under pressure for an extended period of time. Demand will become important as Brazil is competing for sales. That

should help limit the rally potential as the amount of juice available to the world remains strong. The market is looking at somewhat lower prices over time as the market adjusts to the increased availability of juice. Demand could increase as the winter season approaches, but the increase should be well anticipated by the trade. ●

About the author

Jack Scoville is a futures market analyst specializing in grains, softs, rice, oilseeds, and tropical products such as coffee and sugar. He offers brokerage services to an international clientele of agricultural producers, processors, exporters, and other professional traders.



What should modern dietary recommendations consider with respect to 100% juice?

Findings from an expert roundtable discussion

The role of 100% juice in a healthy diet is one of the most controversial topics in dietary guidance. The aim of the roundtable event was to facilitate independent and evidence-based knowledge and understanding on the role of 100% juice in health, and to provide guidance for consideration in contemporary dietary guidelines.

Expert panelists:

- **Dr Anneline Padayachee**, PhD in Nutritional Food Science, Member of the Nutrition Society of Australia, and a Fellow of the Australian Institute of Food Science and Technology (AIFST)
- **Prof Nenad Naumovski** (PhD, MAIFST) Chef, Food Scientist, and Molecular Nutritionist, and Professor in Food Science and Human Nutrition
- **Dr Alan Barclay**, Practising Dietitian, Consultant and Diabetes Expert
- **Dr Flávia Fayet-Moore** Scientist, Dietitian, Space Nutritionist and Entrepreneur, and Founder and CEO of FOODiQ Global
- **Tim Cassettari**, Dietitian and Influencer, Nutrition Leader at FOODiQ Global
- **Dr Malcolm Riley**, Dietician and Research Scientist with the Human Health Program at the CSIRO
- **Dr Meghan O'Hearn**, Nutrition Epidemiologist and Impact Director at Food Systems for the Future

Facilitator:

- **Dr Emma Beckett**, Food and Nutrition Scientist

What is the current position of juice in the Australian dietary guidelines?

The Australian Dietary Guidelines (ADG) includes 100% fruit juice as one serve of fruit, but "only occasionally", with a serve size of 125 mL (compared to 150 g for fruit)². Concern that the free sugars and energy, and low fibre content, of 100% fruit juice can lead to adverse health outcomes such as weight gain and dental caries is cited as the rationale for these recommendations. However, this serve size is typically not equivalent in terms of the defined energy contribution, with 262 kJ for 150 g of fruit compared to 146 kJ for 125 mL of 100% juice (orange) (Figure 1), although juices vary in their energy, nutritional content, and weight^{7,8}. There is also no mention of 100% vegetable juices in the Australian Dietary Guidelines.

What do current dietary guidelines say about 100% juice?

Dr Emma Beckett

The position of 100% juice in food-based dietary guidelines varies greatly between dietary guidelines globally. A key factor underpinning this

inconsistency is that current dietary guidelines tend to focus on a few of its individual nutritional properties, such as sugars or micronutrient profile.

There is a need to look at 100% juice as a whole and consider all of these factors together.

Processing technologies: What are the implications for 100% juice?

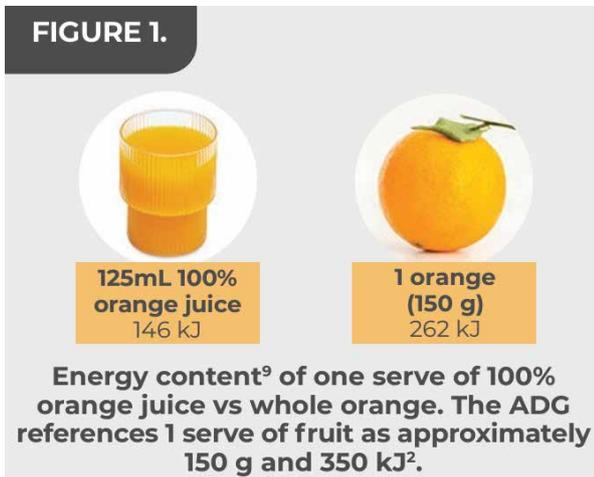
Dr Anneline Padayachee

Juice production has been occurring for longer than one might imagine, with the earliest archaeological records

TABLE 1. What is the position of juice in dietary guidelines globally?

DIETARY GUIDELINE		POSITION OF 100% JUICE	SERVE SIZE
	 Canada's Dietary Guidelines 2019 ¹	Discouraged due to free sugars content.	125 mL
	 2013 Australian Dietary Guidelines ²	Included in the fruit and vegetables food group, with caution due to free sugars and low fibre content.	125 mL, occasionally
	 The Eatwell Guide 2016 ³ (UK)	Included in the fruit and vegetables food group, with caution due to free sugars content.	Up to 150 mL per day
	 Norwegian Guidelines on Diet, Nutrition, and Physical Activity 2014 ⁴	Not mentioned.	Not reported
	 Dietary Guidelines for the Brazilian Population 2014 ⁵	Encouraged due to being minimally processed, but best to consume whole fruit.	Not reported
	 2020 Dietary Guidelines for Americans ⁶	Encouraged as a beverage due to its beneficial nutrients.	250 mL, up to half the number of fruit servings per day

FIGURE 1.

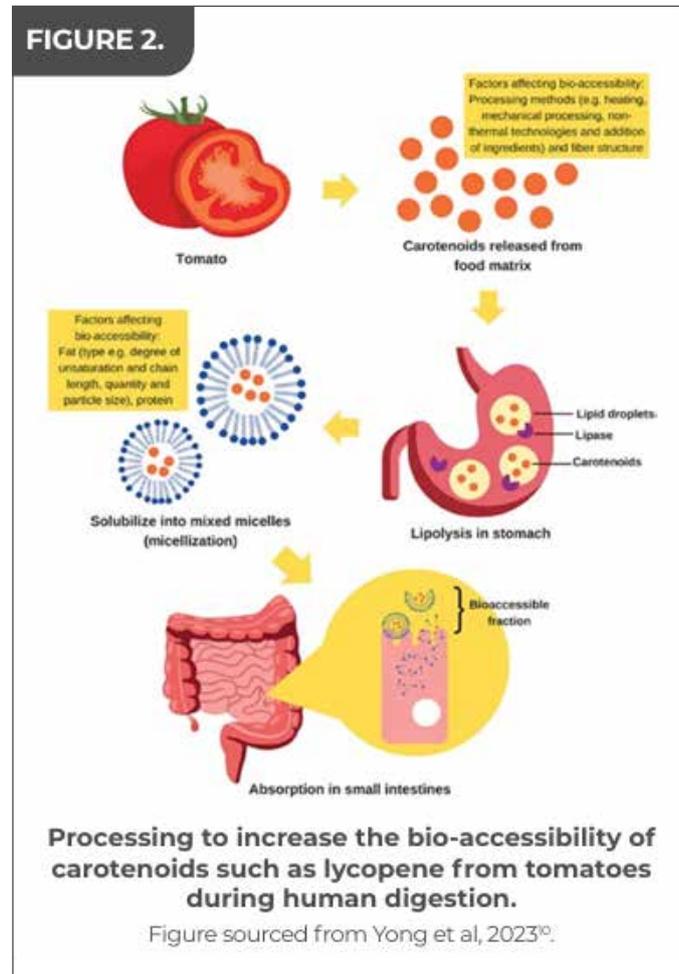


dated at 8000 BC. However, it was not until the 1400s that juice got a “meaning” or definition, as the watery part of fruits or vegetables. The 1700s onwards was then a time of great discovery: James Lind identified citrus fruits to treat sailors with scurvy and Louis Pasteur’s microbe discovery opened the era of finding out about food composition, and how processing can improve food safety and shelf-life. In comparing juice with fruit, a key concept is bio-accessibility, that is, how the nutrients and bioactive components contained within a food are released from the food matrix and made accessible within the body for absorption and metabolism. From this perspective, juice and fruit share some similarities, but their differences deliver unique properties and benefits to the diet.

The processing of 100% juice

Plants have two major components, a fibrous component, and a water component. The former includes the plant cell wall, a very thin structure (2 microns in size) that surrounds the plant cell. However,

FIGURE 2.



nutrients and bioactives are largely within the vacuole of the cell, in the water component, which is inside the plant cell wall. Thus, the cell wall must be broken open for its nutritional contents to be released and become accessible to the body. Food processing can play a significant role in the bio-accessibility of bioactives; a

TABLE 2. Nutritional composition of whole orange, 100% orange juice, and a typical sugar-sweetened beverage.

NUTRITIONAL COMPONENT (PER 100 G)	WHOLE ORANGE 	100% ORANGE JUICE 	TYPICAL SSB 
Energy, kJ (kcal)	36	41	40.6
Total sugars, g	8.2	9.1	10.8
Calcium, mg	24	11	5.9
Iron, mg	0.1	0.2	0
Magnesium, mg	8	9.5	1
Phosphorus, mg	16	15.3	29.7
Potassium, mg	122	152	1
Zinc, mg	Trace	0.1	0
Vitamin C, mg	52	45	0
Thiamin, mg	0.2	0.1	0
Riboflavin, mg	0.03	0	0
Niacin, mg	0.5	0.3	0
Folate, mcg	33	21.5	0
Vitamin B6, mg	0.05	0.1	0
Vitamin A, mcg	9	4.1	0
Vitamin E, mcg	0.4	0.2	0
Total carotenoids, mg	0.33	0.7	0
Hesperidin and narirutin, mg	269	63	0
Pectin (fibre), mg	239	33.4	0
Fibre (AOAC), g	1.2	0.2-0.5	0

Source: Ruxton and Myers 202113; SSB, sugar-sweetened beverage (e.g., sugar-sweetened carbonated soft drink)

classic example of this is the lycopene present in tomatoes, for which release from the fruit and availability to the body are notably enhanced after many processing methods¹⁰, as shown in Figure 2. Research in humans with ileostomy bags has shown that, even after the consumption of cooked carrots, a notable proportion of the beta carotene present in carrots remains unavailable for absorption. This is because, even after cooking and chewing, intact cells are still present and the beta carotene is held within the plant cell wall. While the high fibrous content of whole fruits and vegetables is known to play important roles in satiety, glycemic control, and microbiome health, this may also limit the bio-accessibility of nutrients and bioactives available for absorption in the small intestine; rather, these

nutrients are delivered to the colon where they stimulate gut bacteria growth and health. In contrast, the processing of fruit to produce juice supports the release of some nutrients and bioactive compounds from the food matrix (termed bioaccessible), making them available for absorption in the small intestine after digestion (termed bioavailable). Thus, fruit and fruit juice are distinct: a food and a beverage that can achieve two separate health-focused goals, depending on the desired outcome or use.

Nutritional content of 100% juice

It is true that diets have evolved over time to contain less fibre, less protein, and more sugar, and that the development of ultra-processed

foods has played a significant role in this. While classified as a minimally processed food, 100% fruit juices are often categorised together in both research and dietary recommendations with sugar-sweetened beverages (SSB). However, a comparison of whole orange vs orange juice vs SSB (Table 2) shows that 100% orange juice has a different nutritional composition to SSBs and shares various nutritional similarities with the whole orange (minus fibre-related content).

Plant bioactives: What is their role in health and relevance to 100% juice?

Professor Nenad Naumovski

100% fruit and vegetable juices have the capacity to deliver nutrition with

FEATURE

100% juice dietary requirement

FIGURE 3.



The major groups of bioactives that can be present in juice from different plant sources: carotenoids and polyphenols.

higher bioavailability compared to their whole food counterparts, which includes a wide variety of bioactives. Bioactives are secondary plant metabolites that can have significant relevance to human health, particularly given current movements away from tablets and capsules, into functional food products and supplements that

are both natural and can support health. In addition, a global “aging” society has seen an increase in many illnesses, and concomitantly, the development of natural products that can delay, prevent, or treat disease. As a highly elaborate group of compounds, the science of bioactives is complex. In plants, what we label as “bioactives” are

predominantly defence chemicals from a plant perspective, with activities that can produce both pharmacological and sometimes toxicological effects. There are two major groups of bioactives: polyphenols and carotenoids. Both of these can be present in 100% juice, depending on the plant source (Figure 3).

Polyphenols in 100% juice

Over 8000 polyphenols have been identified to date, with predominant juice-relevant sources being apples, pears, grapes, and berries, all of which have an exceptionally high content of anthocyanin polyphenols. These blue and red pigments have roles in the plant that include structure and growth, and resistance to pathogens. In humans, their roles are primarily antioxidant, anti-inflammatory, and as a prebiotic food source for the gut microbiota.

Carotenoids in 100% juice

Carotenoids are a smaller group, with around 600 identified; however, as many as 60 of these are metabolised and used by humans, showcasing their importance in health. Carotenoids are fat-soluble yellow, orange, and red pigments with a wide range of beneficial health associations, including decreased mortality, cardiometabolic benefits including CVD risk factors and diabetes, potential anti-cancer effects, and even eye and skin health benefits. Juices high in carotenoids include orange, carrot, and tomato juices.

Glycemic index and load: What is its role in dietary guidelines and relevance to 100% juice?

Dr Alan Barclay

Glycemic index (GI) and glycemic load (GL) are measures of the impact of foods and beverages on blood glucose (sugar) levels. While overlooked in the current Australian Dietary Guidelines, globally, there is a recognised need within the international scientific community to lower GI and GL for population health through the consumption of low GI/GL foods and beverages. Higher average GI and GL have been associated in systematic reviews (high-level evidence) with a



In a lot of ways, processing food is all about engineering and architecture, but with food: creating products for a specific purpose.

Dr Anneline Padayachee

higher risk of developing coronary heart disease, T2DM19, and some cancers, including colorectal and bladder cancers.

The GI and GL of 100% juice

Despite the recommendation in most dietary guidelines to limit consumption, 100% fruit and vegetable juices are low GI and GL (when consumed in recommended amounts), suggesting they can play an important role in diets that support population health. As shown in Table 3, fruit juices have a low GI and GL (based on 125 mL serve size), comparable to that of whole fruit, and lower than that of soft drinks. Even if a serve size of 250 mL was used for fruit juices, their GL would still be less than 10 units, therefore regarded as “low”.

A food's GI represents the glycemic potential per 50 grams of available carbohydrate, as a percentage relative to 50 grams of pure glucose²¹. A GI < 55 is regarded as low, whereas >70 is high. The GL of a food is a combination of GI and the total available carbohydrate content (per serve), with 0-10 g being low GL and > 20 being high.

While survey data shows that dietary GI and GL decreased in Australian adults between 1995 and 2011/12, levels are still higher than recommended.

An explanation for why 100% juice is low GI

The low GI and GL of 100% juice contrasts with the high free sugars content that underpins the rationale to limit the consumption of foods high in added or free sugars in many dietary guidelines. There are several factors that influence the GI of a food, with those relevant to juice being physical entrapment (within the cell wall), the presence of polyphenols, type of fibre present, the type of sugar (not all are high GI), and pH. These factors are reflective of the food matrix that is present in 100% juice.

What are the health effects of 100% juice? Findings from a recent umbrella review

Tim Cassettari and Dr Flávia Fayet-Moore

There is a growing understanding in nutritional science that the total food source matters. For example, research has shown that the saturated fat from meat, but not from dairy foods, is associated with an increased cardiovascular disease (CVD) risk. Previous blanket dietary recommendations to reduce saturated fat intake to lower cardiovascular disease (CVD) risk are now being updated to consider the food source and the total “food matrix”. A similar phenomenon may exist for the free sugars content of

FEATURE

100% juice dietary requirement

TABLE 3.

Glycemic index and load for some fruits^a and their fruit juices^b, with comparison to sugar-sweetened soft drinks^c.

FOOD/BEVERAGE	GLYCEMIC INDEX (GI)	GLYCAEMIC LOAD (GL)
 Apple	38 = LOW	7 = LOW
 Apple juice	39 = LOW	4 = LOW
 Orange	42 = LOW	5.2 = LOW
 Orange juice	41 = LOW	3 = LOW
 Apple & blackcurrant juice	45 = LOW	5.5 = LOW
 Sugar-sweetened soft drinks	63 = MEDIUM	22.6 = HIGH

^a GL for fruit based on 150 g serve size for fruit; available carbohydrate content taken from the Australian Food Composition Database (AFCD)⁹.

^b GL for fruit juice based on 125 mL serve size.

^c GL for soft drinks based on serve size of 280 mL, which provides the energy equivalent of one discretionary serve (600 kJ); available carbohydrate content taken from the Australian Food Composition Database (AFCD)⁹.

100% juice compared to other free sugar containing beverages. That is, the sugars in 100% juice sit within a more complex food matrix where the individual components interact, indicating potential differences in their overall influence on health (Figure 4).

The methodology

To better understand the relationship between 100% juice (fruit and vegetable) and health outcomes, an umbrella review was undertaken where all applicable systematic literature reviews (SLRs) with meta-analysis (MA) were summarised in a systematic manner. 100% juice was defined as juice derived directly from fruits or vegetables

“ One of the most sufficient and best ways to deliver these bioactivities is via the use of fresh and whole food juices. *Professor Nenad Naumovski*

or reconstituted to have the same sugars composition as juice direct from the fruit or vegetable, with no added sugars or sweeteners, or fortification.

Further, to complement the umbrella review, since some important health

outcomes were not able to be included due to the lack of data (no SLRs with MA available), an additional scope of the science was conducted. Specific eligibility and assessment criteria were implemented to ensure that accurate conclusions were made.

“ Dietary guidelines for 100% juice often choose one or two nutrients to base their recommendations on, inherently underappreciating the complexity that we see here and the synergy between the nutrients, the bioactives, and the food matrix.

Dr Flávia Fayet-Moore

FIGURE 4.



The complex composition of 100% orange juice, including nutrients that have been associated with adverse health outcomes (red) as well as beneficial health outcomes (green).

FIGURE 5.

INTERVENTION STUDIES:

Systolic blood pressure	B	MD (mmHg) = -3.14 (-4.43, -1.85)
Flow-mediated dilation	B	MD (%) = +2.10 (1.14, 3.06)
C-reactive protein	B	MD (mg/L) = -1.09 (-0.17, -2.01)
Uric acid	B	MD (mg/dL) = -0.28 (-0.43, -0.13)

Diastolic blood pressure **C** MD (mmHg) = -1.68 (-2.94, -0.43)

Interleukin-6 (orange juice only) **D** MD (pg/mL) = -1.51 (-2.13, -0.7)

Interleukin-6 (pomegranate juice only) **D** SMD = -1.07 (-1.9, -0.19)

OBSERVATIONAL STUDIES:

Stroke mortality **D** RR = 0.67 (0.60, 0.76)

CVD mortality **D** HR = 1.20 (1.01, 1.42)

Type 2 diabetes **D** RR = 1.07 (1.01, 1.14)

Prostate cancer **D** RR = 1.03 (1.01, 1.05)

NO EFFECT (INTERVENTION):

- B:** AST liver enzyme
- C:** ALT liver enzyme
- C:** Total cholesterol
- C:** HDL-cholesterol
- C:** LDL-cholesterol
- C:** Triglycerides
- C:** Insulin
- C:** HbA1c
- D:** HOMA-IR
- D:** Body weight
- D:** BMI
- D:** Waist circumference
- D:** TNF alpha
- D:** Pulse wave velocity
- D:** Malondialdehyde
- D:** Fasting blood glucose

NO EFFECT (OBSERVATIONAL):

- C:** Cardiovascular disease (CVD)
- C:** Coronary heart disease (CHD)
- D:** All-cause mortality
- D:** CHD mortality
- D:** Colorectal cancer
- D:** Breast cancer
- D:** Hypertension
- D:** Stroke
- D:** z-BMI

GRADE (QUALITY OF EVIDENCE): **D** = VERY LOW **C** = LOW **B** = MEDIUM **A** = HIGH

KEY: Benefit Risk MD = Mean difference SMD = Standard mean difference RR = Relative risk HR = Hazard ratio

A summary of the balance of evidence produced by the umbrella review, including benefit vs risk, effect sizes, and evidence quality per each outcome.

TABLE 4.

Mean daily intake and nutrient contribution^a of some beverages within the Australian diet.

INTAKE MEASURE	BEVERAGE TYPE:					
		Fruit juice ^b	Soft drinks	Milk ^c	Water	Alcohol
Mean daily intake for consumers (mL)	Adults	400	550	300	1300	800
	Children	300	420	300	1000	NA
Proportion of population consuming (%)	Adults	22	26	8	84.1	33
	Children	38	28	28	90.5	0
Contribution to energy intake (%)	Adults	1.5	1.9	NR	0	5.6
	Children	2.6	2.1	3.1	0	0
Contribution to calcium intake (%)	Adults	1.2	0	3	0	2
	Children	1.7	0	10	0	0
Contribution to sugar intake (%)	Adults	6	8	1.6	0	2.2
	Children	9.8	8.4	5	0	0
Contribution to vitamin C intake (%)	Adults	13.5	0	NR	0	6.5
	Children	23	0	NR	0	0

^a Approximated data only.

^b Includes 100% fruit juice, fruit juice with added sugars, and diluted fruit juice.

^c Plain milk (does not include flavoured milks).

Bolded values represent beverages with the highest levels of each nutrient.

NR, not reported; NA, not applicable.

The results: 100% juice and health

The umbrella review included 15 SLRs and 144 different MAs (51 primary MAs) across almost 2 million subjects, with dosages spanning from 50 to 1200 mL/day. The review included 100% fruit juices only as no studies investigating vegetable juice met the inclusion criteria. The weight of the evidence within the umbrella review suggests a largely neutral (74.5%, n=38) effect on health, with some benefit (19.6% of primary MAs, n=10) and limited harm (5.9%, n=3), with specific effects depending on study type (Figure 5).

The inconsistencies between intervention and observational evidence pose some limitations to definite conclusions being made, and more research is needed to fully understand the discrepancies between the

intervention and observational evidence between 100% juice intake and health. For example, intervention data may be limited by the shorter time periods compared to that from observational studies, and observational data may be limited by errors in self-reporting, such as subjects mistakenly reporting juice with added sugars as 100% juice in dietary recalls. It is important to note that evidence for harm was derived from studies rated as having very low certainty in the effect, compared to the beneficial effects shown in studies with a higher quality rating, up to a moderate certainty in the effect.

What does 100% juice contribute to the Australian diet?

Dr Malcolm Riley

Like foods, beverages are also important contributors to nutrient intake and dietary quality. They are

a predominant feature within the food supply, representing almost 10% of all foods contained within the Food Track supermarket packaged foods database. Fruit juices can be a beneficial beverage, especially if substituted for sugar-sweetened beverages or alcohol in the diet. In Australia, at the most recent National Dietary Survey, the mean total beverage consumption per day was over 2 L (including alcohol), with beverages making a significant contribution to dietary intakes. Beverages represent up to ~18% of energy, ~35% of calcium, ~30% of vitamin C, and ~43% of sugars consumption, with variation depending on the age group. However, as beverage dose and type can make a substantial difference in determining whether contributions of beverages to nutrition and therefore

FIGURE 6.

Scoring of 100% juice by **HSR vs Food Compass**

	100% JUICE SCORE RANGE	NUMBER OF UNIQUE ATTRIBUTES	COMPONENTS ASSESSED
	2.5 to 4 stars (out of 5)	3	Energy, Total sugars, FVNL (Fruit, vegetable, Nut & legume) content.
	65-100 (out of 100)	54	Nutrient ratios (n=3), Vitamins (top 5), Minerals (top 5), Food-based ingredients (n=10), Additives (n=7), Processing (n=3), Specific lipids (top 3), Dietary fibre & protein, Phytochemicals

health are positive or negative, it is important to consider these aspects in determining the contribution of 100% juice to the Australian diet.

The nutritional contribution of common beverages

Table 4 provides this data, taken from the 2011-2012 National Nutrition and Physical Activity Survey (NNPAS) for fruit juice, soft drinks, milk, and water, for each of adults and children. It is important to note that, due to variation in reporting and recall, fruit juice is not necessarily 100% fruit juice and may include juices with added sugars. Data for Indigenous populations from the National Aboriginal and Torres Strait Islander Nutrition and Physical Activity Survey (NATSINPAS) 2012-2013 were similar, although intake of fruit juice was lower. The data shows us that fruit juices (noting the inclusion of fruit juice containing added sugars) make a notable contribution to both sugars and vitamin C intakes but have a reduced presence for total energy and calcium intakes. This contribution was like that made by soft drinks for energy and sugar, although soft drinks did not provide vitamin C nor calcium to the diet. On the other hand, plain milks, a notable source of dietary calcium, contributed similarly to energy intake for children compared to fruit juice, but made up a smaller proportion of sugars intake.

The role of 100% juice in improving beverage choice

These findings highlight the importance of beverage choice to improve the nutrient quality of total dietary intake. The substitution of fruit juice for alcoholic drinks or soft drinks at equivalent volumes is likely to improve population dietary quality. Fruit juice (and plain milk) introduce positive micronutrients (such as vitamin C and calcium) not generally found in soft drinks and not commonly found in alcoholic drinks. Further improvements could be expected if only 100% fruit juices were considered.

Nutrient profiling systems: What are the learnings for 100% juice?

Dr Meghan O’Hearn

While 100% juice is a source of dietary free sugars and has a reduced fibre content in comparison to whole fruit, 100% fruit juice also provides nutrients and bioactives, including vitamin C, carotenoids, and polyphenols. How can this information and evidence base be captured and used to easily compare 100% juice to other foods and beverages? Nutrient profiling systems (NPS) attempt to do just this: synthesise a vast evidence base into a single algorithm that classifies or ranks foods and beverages according to their nutritional composition and

other protective or harmful properties. There are more than 400 different nutrient profiling systems, used for many different applications, including helping consumers make informed choices, guiding worksite or healthcare incentive programs, informing government policies such as front-of-pack labelling, procurement standards, taxation policies, food assistance programs, and promoting industry product reformulation and strategies to improve nutrition as well as responsible investing. NPS vary substantially both in how they score food and beverages and their final interpretation, including the number and type of attributes scored; how these attributes are weighted; the number of different algorithms used for different food and beverage categories; and how the final score is presented and interpreted. Many are focused solely on nutrients, and do not consider additional factors known to impact health, such as bioactives, food-based ingredients, or food processing. In this way, they can lack the complexity necessary to evaluate the nutritional quality of all products based on the latest scientific evidence.

Current nutrient profiling systems for 100% juice

Heath Star Rating: In Australia, the Health Star Rating (HSR) includes 3 different attributes for juice and scores 100% juice between 2.5 to 4 stars,

depending on the juice type. In contrast, non-sugar sweetened soft drinks consistently receive 3.5 stars using HSR. These HSR rankings contrast with the evidence base of the relative health benefits of 100% juice as compared to non-sugar sweetened soft drinks.

Food Compass: Alternative NPS score 100% juice more favourably. For example, Food Compass is a recently developed NPS30 that contains 54 different attributes, including nutrient ratios, vitamins, minerals, food-based ingredients, additives, processing, lipids, fibre and protein, and phytochemicals. According to Food Compass, which scores foods out of a total of 100 points, 100% juices rank highly in nutritional value, from 65 (100% apple juice) to more than 80 (100% citrus juices) and 100 (100% low sodium tomato juice). Soft drinks (including reduced sugar versions) had a Food Compass score of 1. The key factors driving the vast scoring differences between Food Compass and HSR include the inclusion of added vs total sugar and the presence of phytochemicals and NOVA processing classification in Food Compass, among others (Figure 6).

What should be the key considerations for 100% juice in modern dietary guidelines? A facilitated discussion with the expert panellists was undertaken. Clear themes emerged regarding the key considerations for the positioning and guidance on 100% juice in contemporary dietary guidelines, to best support the health of Australians.

More than free sugars

Despite being high in free sugars and low in fibre, 100% juice contributes a number of nutrients and bioactives to the diet. While it is important to consider the nutrition and health implications of single nutrients (a reductionist approach), acknowledgement of the role of micronutrients, bioactives, food synergy, and the role of the food matrix and processing in health, is also needed.

The complete nutritional composition of 100% juice and the total health effects of 100% juice should be used to inform guidance, rather than the sole focus being on one or two components.

Evidence-based guidance, to realise potential health benefits

In high-level evidence (meta-analyses), the health effects of 100% juice were primarily neutral (no effect) with some benefits, and limited evidence for harm. These benefits included cardioprotective and anti-inflammatory effects, with no adverse effects on body weight, across a wide range of doses.

Beverages dietary guidance needed

While 100% juice is often included within the fruits and vegetables core food categories in dietary guidelines, they are often consumed in a different manner and to meet a different need (i.e., thirst), compared to their whole food counterparts. The dietary guidelines need to provide separate and specific recommendations for beverages, with consideration of the wider range of beverages available, and the inclusion of 100% vegetable juices.

Consider the total dietary context

The health effects for any food should be considered as part of the total dietary context, and 100% fruit juice is no exception. While 100% juice can have health benefits and is compatible with a healthy diet, its consumption should not compromise whole fruit intake, and guidelines should reflect this.

Affordability and sustainability

The consumption of 100% juice can have a favourable financial impact for individuals, with juice highlighted as the most affordable source of nutrition in the US, Australia, and New

Zealand, via its nutrient density to cost ratio. Environmentally, 100% juice has mixed effects compared to whole fruit, as it can both reduce food waste by using excess crops, as well as increase carbon footprint due to manufacturing processes.

Conclusions

The position of 100% juice within dietary guidelines is controversial, and the current Australian Dietary Guidelines caution about overconsumption due to concerns about potential weight gain and dental caries. On the balance of evidence, which includes an umbrella review of 15 systematic reviews with meta-analysis, 100% juice had some benefit with limited evidence of harm. The evidence was strongest for its cardioprotective and anti-inflammatory effects, and no effect on body weight outcomes. While 100% juice contributes to free sugars in the diet and has a low fibre content, 100% juices also make important nutrient contributions to the diet, are a rich source of bioactives, have a low glycemic index and load, and are minimally processed. When the wider body of evidence is considered, there appears to be a place for 100% juice in contemporary food-based dietary guidelines. ●

About FOODiQ

FOODiQ are a global leader in the translation of food and nutrition science, working to empower people and organisations with food and nutrition information that is backed by science, rather than the latest diet or food trend.

Dr Flavia Fayet-Moore and the team at FOODiQ Global love food so much that they study it at a super nerdy level—uncomplicating food and nutrition science to benefit companies, organisations, and people.

Find out more at www.foodiq.global

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There have been no crop reports from the USDA for the past two months due to the US Government shut down. However, there has been an update on production from the current 2025/26 orange crop in Brazil.

BRAZILIAN 2025/26 ORANGE CROP FORECAST ↓

Fundecitrus has released its second forecast on the 2024/25 orange crop for the São Paulo and West-Southwest Minas Gerais citrus belt in Brazil at 306.74 million boxes, 2.5% below the initial forecast in May of 314.60 million boxes, but significantly higher than the

230.90 million boxes harvested during the previous 2024/25 crop.

Lower rainfall and a higher fruit drop rate are cited as the main reasons for the reduction in the crop forecast. The number of oranges needed to fill a box remains at 305 fruits per box. The next update on the crop will be released by Fundecitrus on 10 December.

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VOG PRODUCTS: CUSTOMER-SPECIFIC SOLUTIONS – FROM BLENDS TO CIDER BASES



A TRUSTED PARTNER FOR A WIDE RANGE OF LIQUID PRODUCTS

The producer organization VOG Products supports the food and beverage industry with a wide-ranging portfolio of liquid fruit products – from NFC juices and fruit concentrates to purees and tailor-made blends. Each product is produced according to customer-specific requirements, with taste, texture, and composition adapted to individual needs. The cooperative also supplies pre-fermented bases for the vinegar and cider industry.

PROCESSING FRUIT ALL YEAR ROUND

Using state-of-the-art process technology, VOG Products is able to process fresh fruit throughout the year. Apples continue to be at the core of the production, but the cooperative also processes pears, apricots, peaches, kiwis and plums. Clients can choose between cloudy or decolorized concentrates and a range of single-variety juices, including specialties such as red apple juice.

TAILOR-MADE BLENDS

Developing customer-specific blends has become a hallmark of the cooperative's approach. Working closely with clients, VOG Products creates tailor-made products ranging from juice and concentrate combinations to smoothie blends and innovative fruit puree mixtures. These customized solutions are designed to meet individual preferences, whether it's compote mixed with or without fruit pieces or creative juice compositions.

TIME-SAVING ALTERNATIVES FOR THE VINEGAR INDUSTRY AND CIDER PRODUCERS

Among its many applications, the South Tyrolean cooperative also provides cider and cider concentrates used as bases in vinegar production. Thanks to an in-house fermentation step, VOG Products reduces complexity for its clients, supplying standardized, reliable and easy-to-use semi-finished products that ensure maximum product safety and consistent premium quality. These pre-fermented raw materials form an ideal basis for further processing. Additionally, VOG Products offers cider blends that can be filled directly into the final packaging – a time-saving solution that simplifies handling and guarantees consistent quality.

CERTIFIED QUALITY AND FLEXIBLE PACKAGING OPTIONS

VOG Products holds a range of certifications that reflect its commitment to the highest production standards, including Naturland, Bioland, Demeter, Bio Suisse, and FSA Gold.

VOG Products, based in Laives (Italy), is owned by two South Tyrolean producer organisations (VOG and VIP) and 17 fruit cooperatives. Every year, the company processes between 300,000 and 400,000 tonnes of fruit from integrated and organic cultivation, turning it into NFC juices, concentrates, purées, steamed and IQF fruit, as well as finished products. VOG Products has a 90% export quota, shipping its semi-finished products to around 50 countries worldwide.

Juice Summit 2025

1-2 October • Bruges



We're delighted to share highlights from the 12th edition of the Juice Summit, held for the first time in Bruges on 1-2 October. Co-organised by AIJN, (European Fruit Juice Association), IFU (International, Fruit and Vegetable Juice Association) and SGF (Safe-Global-Fair).



The Summit once again brought together hundreds of participants from across the global juice industry including producers and processors, retailers, researchers, and innovators.

This year's edition reflected the pulse of a sector striving for transformation, one that aims to become more digital, more data-driven, and more sustainable.

Discussion topics and themes

Across the two days, speakers and attendees explored the changing consumer landscape, the power of technology, and the need to turn sustainability into a shared, actionable strategy for long-term growth.

Kees Cools, President of IFU, opened the event and shared thoughts that our industry is navigating a time of major change: from climate pressures and plant diseases to geopolitical tensions. Yet within these challenges lie opportunities. As global diets move toward healthier and more sustainable choices, fruits, vegetables, and juices are at the centre. To stay relevant and resilient, the sector must

keep innovating, collaborating, embracing sustainability, and sharing its story more powerfully.

Victor Palandi, Global Consulting and Insights Director at NielsenIQ, shared a global outlook on FMCG and beverages, noting a gradual recovery in consumption led by non-alcoholic drinks. He highlighted opportunities for the juice sector to grow through lighter, more sustainable formats and innovative, ready-to-drink products that resonate with younger, health-conscious consumers.

Industry innovation and technology

Hans Roelofs, former CEO of Refresco urged the industry to move "from squeeze to strength". He highlighted three priorities: innovation at all levels to build influence and competitiveness; diversification to balance risks and open new opportunities; and consolidation, reminding that "it is never finished." His call was clear – to innovate, diversify, and unite to secure a stronger future for the juice sector.

Speakers during a technology focused session explored how artificial intelligence, smart data, and automation are already



in use across the value chain - from crop management and processing to quality assurance and product innovation. The message was clear: these tools are not distant promises but real enablers of efficiency, sustainability, and resilience in an increasingly complex marketplace.

Further talking points highlighted moderate global value growth for juice, with health, functionality, and affordability driving innovation amid supply challenges, sugar scrutiny, and private label competition.

Focus on the future

Consumer habits are evolving rapidly in line with new health priorities and changing lifestyles, making data-driven insights and social listening essential to understand and engage today's consumers effectively.

Tariffs, regulations, and trade agreements continue to shape both risks and opportunities across the value chain, influencing sourcing, pricing, and competitiveness in global markets.

The AIJN presented its new Sustainability Strategy, setting out a shared framework to align efforts across the juice value chain. Building on the strong foundations of the Sustainable Juice Covenant (SJC) and the Sustainable Juice Platform (SJP), the strategy reinforces a common direction for stakeholders committed to responsible sourcing and production. Shared industry standards and alignment drive innovation, reduce complexity, and enhance impact.

The Summit concluded with a positive message, in that the industry's future lies not in producing more, but in

producing smarter, building efficiency, sustainability, and resilience into every step of the chain.

A heartfelt thank you to all participants, sponsors, and partners who made Juice Summit 2025 a remarkable success. Your engagement, insights, and support are invaluable! Let's continue to inspire and support one another as we move forward together. ●

Save the Date: Juice Summit 2026

14-15 October 2026 • Brussels

We are delighted to announce that the next edition of the Juice Summit will take place on 14-15 October 2026 in Brussels.

Further details will be shared in the coming months.

We look forward to welcoming you in Brussels for another year of collaboration, innovation, and collective progress!

For former information please contact francesca.pelosi@aijn.eu

For further updates and information, please visit www.juicesummit.org



IFU announces global juice events program 2026

The International Fruit and Vegetable Juice Association (IFU) is delighted to announce its 2026 global events program, continuing its mission to connect juice industry professionals and foster innovation across the international juice sector.



Each year, IFU hosts a series of high-level events around the world, providing platforms for knowledge exchange, networking, and collaboration among producers, suppliers, researchers, and key stakeholders. The 2026 calendar builds on this strong tradition, offering a dynamic mix of regional and international meetings, technical workshops, and educational programs.

Highlights of IFU's 2026 events calendar

- **IFU & SGF Global Juice Roadshow – Cairo, Egypt.**
9-10 February 2026
Market insights, technical sessions, and exclusive facility visits.
- **IFU Technical Workshop – Lyon, France.** 4-5 March 2026
In-depth sessions for quality, R&D, and laboratory professionals, followed by a technical visit.
[Registration is now open!](#)
Sponsorship packages are available on a first come, first served basis
- **IFU Juice Conference – Orlando, USA.** 13-16 April 2026
IFU's major international event outside Europe, co-organized with the Juice Products Association (JPA).
Registration opens in December
Sponsorship packages are already available and will be allocated on a *first come, first served* basis, find the sponsorship information [here](#).
To secure your sponsorship, please contact:
stefania.moeri@ifu-fruitjuice.com
- **IFU & SGF Global Juice Roadshow – South Africa.**
13-15 May 2026 (TBC)
Regional collaboration with SAFJA, featuring industry updates and site visits.

- **IFU Juice Processing Summer School – Parma, Italy.**
22-25 June 2026 (TBC)
Educational course in partnership with the University of Parma.
- **Juice Summit – Brussels, Belgium.** 14-15 October 2026
Europe's flagship juice industry event, co-organized with AIJN and SGF, attracting nearly 500 participants.
- **IFU & SGF Global Juice Roadshow – Kenya.**
Dates to be confirmed
Focus on local market developments and regional engagement.

About IFU

The International Fruit and Vegetable Juice Association (IFU) represents the global juice sector, promoting best practices, scientific collaboration, and sustainable growth across the value chain. Through its international network and partnerships, IFU serves as a key voice for the industry, connecting professionals worldwide.

For more details on each event or sponsorship opportunities, please contact:
Stefania Moeri Hertach, Marketing Director at stefania.moeri@ifu-fruitjuice.com
or visit: <https://ifu-fruitjuice.com>

Join us in 2026 and be part of the global juice community shaping the industry's future!



Juice



Market



In the November 2025 edition...

ORANGE JUICE – Producers in Mexico say the 2025/26 orange crop has begun with a slow start for the early and mid-season fruit due to heavy rains which have limited access to the groves.

APPLE JUICE – The 2025/26 apple season in Poland is now coming to a close with 85-90% of the crop now harvested.

GRAPEFRUIT JUICE – Texas processors have just started to run fruit from the new 2025/26 crop. Meanwhile, growing conditions for the new crop in Mexico are good.

GRAPE JUICE – Grape juice producers in Argentina say they have experienced a spike in demand over the past month.

LEMON JUICE – The global lemon juice concentrate market has become very challenging for both buyers and producers.

PINEAPPLE JUICE – The 2025 Winter crop in Thailand, which began in mid-September, is about to go into full swing.

MANGO JUICE – The 2025 mango crop in Mexico wound up last month and producers are sold out.

PASSION FRUIT JUICE – Growing and harvesting conditions in Ecuador have been favourable over the past month.

JUICE DATA – Brazil: orange juice exports • US juice import tariff update • FCOJ futures • Brazil FCOJ price trend • Apple juice concentrate price trend • Grape juice concentrate price trend • Lemon juice concentrate price trend • Pineapple juice concentrate price trend • Mango juice price trend • Passion fruit juice price trend

Juice Market is a monthly report covering the fruit juice concentrate market, it includes data, news and market reports to help producers and buyers make informed decisions.

For subscription details and to see a sample edition please contact:

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If your association wishes to submit any event details or news items please email emma@fruitjuicefocus.com

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Fruit Juice Focus

Published by Ernest Worsley Publishing Ltd,
44 Farnham Lane, Tunbridge Wells, Kent, UK
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