

POTATO PROCESSING

I N T E R N A T I O N A L

Supporting the potato industry worldwide

Issue 3 • Volume 34 • 2026

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Special Coverage

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The Snack
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Technology

Potato Freezing Technology Is
No Longer Just About Freezing

Ingredients

Beyond Sunflower Oil: A Technical
Guide For Artisan Chip Producers



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Managing the Variables

Tudor Vintiloiu - Editor in chief
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As this issue goes to print, the potato processing industry is preparing for one of its most important gatherings of the year. SNACKEX 2026, taking place in Lisbon in mid-June, will once again bring together suppliers, processors, ingredient specialists, and technology providers from across the global savory snacks sector. The timing is significant.

Processors today are navigating an environment where operational decisions are increasingly shaped by factors beyond the factory floor. Energy costs remain a concern in many regions. Food safety expectations continue to evolve. Disease pressure in potato production remains a constant threat to raw material quality and availability. At the same time, consumers continue to demand novelty, whether through new flavors, formats, or ingredient choices. The common thread is control. Manufacturers are looking for ways to reduce variability, improve predictability, and maintain product quality despite

As SNACKEX approaches, these are precisely the conversations shaping investment decisions across the industry. This issue aims to provide context for many of them.

growing complexity throughout the supply chain. That theme runs throughout this issue of Potato Processing International. We examine developments in freezing technology, where equipment suppliers continue to pursue greater efficiency without compromising product integrity. We explore food safety and the increasing role of monitoring, traceability, and inspection technologies in protecting both products and brands. Our disease management feature looks at the challenges facing growers and processors as they work to secure reliable raw material supplies in a changing production environment. Elsewhere, we turn to alternative frying oils and the options available to smaller producers seeking to balance performance, cost, and regulatory requirements. Our market analysis focuses on the APAC and ANZ regions, where investment, capacity expansion, and changing consumption patterns continue to create opportunities for growth. ●

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SEPTEMBER 29 - OCTOBER 1
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FAM STUMABO Tackles Embedded Stone Damage in Chip Production

FAM STUMABO has introduced StoneExtractor, a new feature integrated into its centrifugal cutting technology to address the growing challenge of embedded stones reaching the slicing stage in potato chip production. The company says stones concealed inside potatoes can bypass washing, cleaning and optical sorting systems before entering cutting heads, where repeated impacts may damage blades, increase

maintenance requirements and disrupt production. StoneExtractor uses redesigned cutting head segments with deeper grooves and optimised evacuation openings that remove stones immediately after impact. Existing equipment can be retrofitted without major line modifications. “The key advantage is that stones are removed at the point where the impact occurs. If they exit immediately, they cannot continue circulating and

damaging other blades,” said Jörg Plumanns, Industry Manager Potato Chips at FAM STUMABO. The system forms part of the company’s broader “3S” strategy combining shielding, sensing and separation technologies. Validation trials with Austrian snack producer Kelly showed reduced blade wear, fewer unplanned stops and more predictable production performance under challenging raw material conditions.

Potato Contracts Surge Amid Geopolitical Tensions

Potato-linked contracts for difference (CFDs) climbed more than 700% in less than a month, rising from about €2.11 per 100kg in April to around €18.50 in early May, according to Euronews. The increase comes despite a significant oversupply in Europe’s physical potato market, where large harvests in Belgium, the Netherlands, France and Germany have weighed heavily on prices. The report noted that some lower-grade potatoes have traded at extremely low or even negative values as growers struggle to clear stock. Euronews attributed the surge largely to concerns surrounding the Iran conflict and its potential impact on fertiliser availability, logistics and future production costs. The Strait of Hormuz, through which roughly one-third of global fertiliser trade normally passes, has become a focal point of market concern. The development highlights a growing disconnect between financial markets and physical potato fundamentals, as traders price in future supply risks despite current market oversupply.



PPM and Key Unveil Integrated Potato Chip Line



PPM Technologies and Key Technology have launched a fully integrated potato chip processing line ahead of SNACKEX 2026, combining processing, seasoning and optical sorting technologies into a single production architecture. The system spans

slicing through packaging and is designed to improve product consistency, increase yield, reduce labour dependency and simplify project execution through a single-source supply model. Processors can choose between PPM’s BatchWright fryer for kettle chips or the CookWright continuous fryer for conventional production, both featuring oil filtration and clean-in-place functionality. Final inspection is handled by Key’s COMPASS optical sorter, which detects defects including dark spots, green discoloration and fryer debris. The line also incorporates PPM’s FlavorWright seasoning platform and conveying systems designed to support smooth product flow. Data collection and analysis are provided through Key Discovery software, offering visibility into yield, reject rates and raw material variability. “Potato chip processing lines that hold up under challenging conditions aren’t just well spec-ed. They’re built by partners who understand what each stage demands,” said Daniel Luna, Director of Processing at PPM Technologies.

Starboard Urges Strategic Reset at Lamb Weston

Kactivist investor Starboard Value has called on Lamb Weston to hold an investor day to rebuild confidence, reset earnings expectations and outline a clearer long-term growth strategy. In a letter to the company’s board, Starboard described Lamb Weston as a strong business operating in an attractive category but argued that management must better explain how it plans to restore profitability and growth. The investor proposed a five-point framework focused on portfolio optimisation, clearer communication, profitability commitments, margin targets and earnings growth. Central to the proposal is a target of at least 25% adjusted EBITDA margin by fiscal 2029, supported by revenue growth, pricing discipline and additional cost reductions beyond the company’s existing USD 250 million savings programme. Starboard also highlighted opportunities to improve SG&A efficiency and suggested margin targets would provide a clearer benchmark for investors. The firm said Lamb Weston should “reset the narrative” by emphasising its structural strengths and demonstrating consistent execution against measurable goals.





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McCain Study Highlights Global Love of Fries

McCain Foods has released its first Spud Report, a global consumer study examining how people consume and relate to potatoes and fries. Conducted with Pollara Strategic Insights, the survey gathered responses from more than 12,000 adults across 11 countries and found a consistent result: fries remain the preferred potato product regardless of local food traditions. According to the report, 78%

of respondents said fries improve their mood, while 55% associated them with happiness and 46% with relaxation. Around two-thirds reported eating fries after 10 p.m., and half said they had put fries inside sandwiches. McCain said the findings demonstrate the cultural role of fries beyond their function as a side dish. "The Spud Report confirms something we've known instinctively for years: fries are more than a side dish – they're part of everyday rituals



around the world," said Charlie Angelakos, Vice President, External Affairs and Sustainability. The report also explored country-specific habits, including Canadian attitudes toward fry etiquette and restaurant choice.

Calbee Simplifies Packaging Amid Naphtha Shortage

Calbee will begin shipping selected potato chip products in black-and-white packaging from late May as shortages of naphtha, a petroleum-derived material used in printing ink production, create constraints in packaging supply. According to Kyodo News, the temporary change will affect flagship products including Potato Chips Lightly Salted and Consommé Punch. While the products themselves remain unchanged, the move highlights how geopolitical tensions in the Middle East are affecting food manufacturers through disruptions in petrochemical supply chains. Naphtha is used not only in plastics production but also in inks and other packaging materials, making shortages particularly significant for consumer goods producers. Kyodo also cited a survey showing that more than 70% of around 100 respondent companies would likely raise prices if supply concerns persist. For snack manufacturers, the development illustrates how maintaining production continuity may take priority over packaging aesthetics when critical materials become constrained.



U.S. Growers Seek Return of PEI Potato Import Restrictions



The U.S. potato industry is urging federal regulators to reinstate restrictions on fresh potato imports from Prince Edward Island following a new detection of potato wart disease. The National Potato Council and 13 state potato organizations

formally requested action from the USDA, arguing that the latest case was found in a previously unregulated field and raises questions about the true extent of the disease. "Given that this new detection has occurred in an entirely new field without any association with previous finds, it reinforces our continued concerns over the true scope of the disease in PEI production areas," wrote NPC CEO Kam Quarles. Potato wart is a soil-borne disease that can persist for decades and has no chemical treatment. The request revives a debate that began in 2021, when the U.S. temporarily halted PEI imports before allowing trade to resume in 2022. Industry groups are also calling for tighter controls, enhanced traceability and additional safeguards around handling and processing activities.

Potato Chosen as Featured Product at Fruit Attraction 2026

Fruit Attraction 2026 has named the potato as its featured product, giving the category increased visibility at one of Europe's largest fresh produce trade fairs. The event, scheduled for 6–8 October at IFEMA Madrid, is already more than 90% booked and is expected to attract over 2,500 companies and 121,000 professionals from 150 countries. According to organisers, 72,000 m² of exhibition space has already been allocated, just 2,000 m² short of last year's total occupancy. The show will span 10 halls and more than 162,000 m² of exhibition space. Organisers said the potato was selected in recognition of its strategic importance for food security and healthy eating. The event will also feature the Organic Tour, the International Buyers Programme involving 700 buyers from over 50 countries, and a series of technical seminars, including the Avocado Congress and Biofruit Congress. China and the UAE will be highlighted under the Guest Importing Countries programme.



BonBon Enters Potato Chip Market With Swedish-Inspired Range

BonBon Swedish Candy Co. has expanded beyond confectionery with the launch of its first savoury snack line, BonBon Swedish Potato Chips. The kettle-cooked chips are made from potatoes grown on Gotland, Sweden, with the company highlighting the island's lime-rich soil and maritime climate as contributors to product quality. The new range includes four flavours: Dill & Chives, Salt & Vinegar, Dill & Pickle, and Truffle & Parmesan, each inspired by Swedish culinary traditions. "Our goal has always been to share the traditions, ingredients, and everyday rituals that make Sweden special," said Max Herrlander, Director of Sales. "With BonBon Swedish Potato Chips, we're introducing another expression of our heritage." The launch extends the company's Swedish snacking platform into the premium potato chip segment, focusing on thin-cut chips and distinctive flavour profiles. The products are available in 40g bags through BonBon stores and selected retailers. Founded in 2017, the company operates seven retail locations in New York and Connecticut alongside its e-commerce and wholesale businesses.



TNA Launches High-Speed robag® Quantum Platform

TNA Solutions has introduced the tna robag® Quantum, a new vertical form-fill-seal (VFFS) platform designed to increase packaging output while reducing line complexity. Unveiled at interpack 2026, the system is aimed at manufacturers facing labour shortages, rising costs and growing product variety. Rather than adding more bagmakers, the platform focuses on increasing output per packaging tube, with TNA stating it can achieve up to 300 bags per minute per tube, depending on product and pack format. "Quantum is the latest expression of that journey, built with the same pioneering spirit, and engineered for what the industry needs next," said CEO Michael Jonson. TNA says the approach can reduce supporting equipment, maintenance requirements and factory-floor complexity. The platform is built around easier operation, faster changeovers and improved productivity, while also supporting integration with upstream processing systems. According to Simon Hill, Group Product Innovation Manager, the goal is "a simpler, more efficient line that supports higher OEE, lower waste and faster routes to profitability."



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SNACKEX A Dedicated Meeting Point for Potato Snacks

SNACKEX 2026 returns to FIL Expo in Lisbon, Portugal, on 17–18 June 2026, bringing together the global savoury snacks industry for two days focused on technology, innovation and business development. Organised by the European Snacks Association (ESA), the event remains the only international trade fair dedicated exclusively to savoury snacks and snack nuts.

By Tudor Vintiloiu

For the potato processing sector, SNACKEX provides a concentrated view of developments shaping one of the industry's most dynamic categories. While the exhibition covers the broader savoury snacks landscape, potato chips, extruded potato snacks and baked formats remain central to discussions around production efficiency, product differentiation and changing consumer demand.

The event combines an exhibition and conference format, creating opportunities for processors to connect directly with equipment suppliers, ingredient specialists, packaging providers and international buyers. According to organisers, visitors represent more than 40 countries and include a high concentration of purchasing decision-makers and technical teams.

Exhibitors will showcase technologies and services spanning snack processing and packaging, including extrusion systems, frying and baking technologies, seasoning and flavour solutions, oils and fats, ingredients, automation, materials handling and packaging materials. Potato processors will also find suppliers active in adjacent areas such as snack pellets, laboratory services and process optimization. Alongside product launches and technical showcases, SNACKEX positions itself as a platform for networking, supplier meetings and discussions around future market opportunities in savoury snacks - making it a relevant stop for companies active across the potato value chain.

SNACKEX SNACK SCIENCE HUB PROGRAM

This 2-day seminar series at Snackex – free of charge – offers pure know-how which will support producers to improve their business. Here are the highlights of the program:

WEDNESDAY 17 JUNE

10:00 – 10:30 Less salt, less sugar, more flavor!

Jaimy van de Steenoven, Euroma

10:40 – 11:10 Save time – secure hygiene

Evita Rosdahl, Jeros

11:20 – 11:50 Navigating complexity: geopolitical shifts and technological innovation in the savoury snacks sector

Andrew Green, Ishida Europe

13:00 – 13:30 Nicetuck – the glue free case packing revolution

Michele Celestini, Tiber Pack

13:40 – 14:10 Unlocking unique sensory experiences for snacks

Uwe Diekhoff, Fuchs Gruppe

14:20 – 14:50 Smart flours, smarter snacks: unlocking process, health & cost benefits

Anne-Sophie Mahiout-Godart, Limagrain Ingredients

15:00 – 15:30 AI meets PEF: smarter snack quality control

Kevin Hill, Elea Technology GmbH

15:40 – 16:10 Transformative approach to reducing water consumption in raw produce processes

Rick Bajema, Heat and Control Inc.

16:20 – 16:50 Optical sorting of potato chips, latest trends and developments

Gregory Gouters, Key Technology

17:00 – 17:30 AI in vision technology

Elbert Griffioen, Blueprint

THURSDAY 18 JUNE

09:30 – 10:00 The secret to perfect frying: quality oil and potatoes

Dr. Simone Bellassai, CDR FoodLab®

10:10 – 10:40 Rethinking energy in potato chips production

Stefan Björk, Rosenqvists Food Technologies

10:50 – 11:20 Sustainability & cost reduction through reusable distribution packaging

Fred Dowd, Technology Container Corp. (TCC)

11:30 – 12:00 Advancing snack innovation – the role of natural colours in emerging global trends

Christine Cuddihy, Kalsec Europe

13:00 – 13:30 Using NMR to deliver HFSS, cost and quality objectives in snack manufacturing

Brian Meyer, NanoNord A/S

13:40 – 14:10 The role of frying oil management in processing nuts

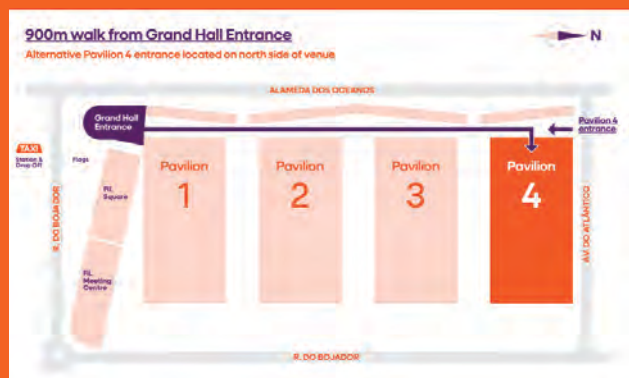
Gary Miertschin, Kuipers Food Processing Machinery

14:20 – 14:50 Balancing wellness, flavour and agility in European snacking

Eric Geling, TNA Solutions

15:00 – 15:30 Acrylamide in focus: a comprehensive exploration and latest developments

Andrew Curtis, European Snacks Association •





SNACKEX

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Elea Technology GmbH

Booth 215/www.eleapef.com

Elea Technology is the global leader in Pulsed Electric Field (PEF) technology for the food industry. Our innovative solutions enhance efficiency, increase yield, and improve product quality in snack processing. From chips and fries to dried snacks, PEF optimises slicing, reduces cutting force, improves texture, and lowers oil uptake during frying. It also enables uniform colour, shorter processing times, and less waste. With systems like PEF Advantage and AI-supported control, we enable sustainable, high-performance production worldwide.



FAM STUMABO

Booth 625/www.fam-stumabo.com

FAM STUMABO specializes in advanced industrial cutting solutions for potato chips, vegetable chips, and snack products. With deep application knowledge and in-house blade manufacturing, we help processors achieve accurate slice thickness, higher capacity, and stable frying results. Our Centris™ machines, SureSet cutting heads, and precision blades are designed to reduce waste, limit product damage, and support consistent quality in both continuous and batch snack lines. From product testing to line integration, we work closely with customers and partners to find the right cutting setup for every process. Together, we cut your snack product to perfection!



GoodMills Innovation GmbH

Booth 127/www.goodmillsinnovation.com

GoodMills Innovation develops clean label ingredients based on cereals and pulses for a wide range of applications in the food, bakery, snack and nutraceutical industries. The aim is to combine maximum enjoyment with one or more added benefits: for the consumer's health or for more economical production. With expertise along the entire value chain, from raw material sourcing and processing to understanding market and consumer needs, the cereal expert supports its customers with innovative product concepts, tailor-made solutions and expert advice on application. As part of the GoodMills Group, Europe's largest milling group, GoodMills Innovation stands for the highest quality and innovation.



Heat and Control

Booth 401/www.heatandcontrol.com

Heat and Control is a privately-owned company with 12 manufacturing facilities, 13 test centres & over 30 offices globally. Our team has developed extensive knowledge & a wealth of experience in the engineering and manufacture of modern industrial processing, coating, seasoning & conveying. We can provide an individual solution or an entire turnkey equipment solution for ultimate efficiency & performance. Supported by a network of engineers, food technicians, after-sales service, skilled tradespeople, and support teams providing food manufacturers with confidence to achieve production goals.



Key Technology

Booth 431/www.key.net

Key Technology is a leading global food processing machinery manufacturer. Applying unmatched processing knowledge and application expertise, we help customers worldwide improve quality, increase yield and reduce cost. Unlike other food processing machinery suppliers or sorting machine manufacturers, we offer sorting, conveying and other processing equipment, meaning you benefit from a seamlessly integrated, customized solution from ONE source.



Kuipers Food Processing Machinery

Booth 201/www.kuipers.nu

Kuipers Food Processing Machinery is excited to announce that we will be exhibiting at Snackex 2026 in Lisbon at Stand 201! Together with our subsidiary, Lalesse Extrusion, we look forward to meeting existing clients, industry partners, and many new faces from across the snack sector. We are eager to discuss our latest developments in frying and extrusion technologies and explore how we can support both established and emerging producers in creating high-quality snack products. We hope to see you there!



Optimum Sorting

Booth 512/www.optimum-sorting.com

Optimum Sorting specializes in developing optical sorting technology, serving both food and non-food markets worldwide.

We aim to optimize sorting efficiency, enabling our customers to maximize productivity and minimize (food) waste. Optimum Sorting is a pioneer in the world of optical sorting machines, with roots going back to the 1980s. Our machines (Novus, Ventus and Magnus) can handle a wide range of products, from fresh and frozen foods to pet food, candy, and even minerals. Our mission is clear: "Sorting smarter. Wasting less. Shaping tomorrow."



RBS

Booth 315/www.readingbakery.com/

SnackEx is an important event for RBS because it brings together snack manufacturers focused on growth, innovation, and improving production. We look forward to discussing how producers can improve efficiency, reduce operating costs, increase flexibility, and bring new products to market faster. Key topics shaping these conversations include flexibility, energy efficiency, automation, and greater process visibility. Manufacturers are looking for solutions that improve performance while simplifying operation and reducing costs. RBS provides complete production solutions across mixing, forming, baking and lifecycle support. By combining equipment with deep process expertise, we help manufacturers optimize performance, reduce risk, and support long-term growth.



tna

Booth 214/www.tnasolutions.com

At Snackex 2026, explore how to optimise your snack production from end to end with TNA Solutions' experts.

- Discover complete line solutions for snacks processing, seasoning, distribution and packaging
- Get tailored insights to improve efficiency, uptime and total cost of ownership



- Discuss your production challenges directly with our experts
- Stay ahead with insights on global trends and industry best practices

Urschel Cutting Technology

Booth 631/www.urschel.com

Visit Urschel at Snackex to see the latest in snack food cutting machinery. The industry-leader Model CC potato crisp/chip slicer will be on display. Take a closer look at the modular built, laser frame design. Precision slicing in an upgraded build with zero internal corners. A bold, improved look, while maintaining the quality and durability Urschel is known for. Also on display, Comitrol Processor that reduces products down to micro-dimensions for value-added and rework capabilities. Leading processors around the globe rely on Urschel to deliver the future of cutting today.





Potato Freezing Technology Is No Longer Just About Freezing

Freezing systems in potato processing are being pushed toward longer uninterrupted production cycles, higher throughput densities and tighter hygienic requirements at the same time that processors are attempting to reduce energy exposure and protect product yield. The operational challenge is no longer limited to reaching target temperatures.

By Tudor Vintiloiu

Modern freezing systems are increasingly evaluated according to how effectively they maintain product separation, minimize dehydration losses, sustain airflow stability and avoid production interruptions during extended runs. This pressure is especially visible in high-capacity French fry and specialty potato operations, where freezing sits directly between thermal processing and final packaging. If the freezer becomes unstable, the consequences extend across the line: inconsistent product temperature affects packaging behavior, frost accumulation affects airflow and capacity, excessive dehydration reduces yield, and sanitation downtime limits available production hours. That operational environment explains why recent freezer developments from suppliers such as JBT Marel, FPS Food Process Solutions, and GEA, increasingly focus on continuous-run capability, hygienic accessibility, airflow control and operational monitoring rather than freezing speed alone.

FROST CONTROL HAS BECOME A THROUGHPUT ISSUE

Frozen potato operations generate substantial frost loads inside freezing systems. Moisture entering the freezer from blanching, drying and frying stages accumulates over time on evaporators and internal freezer surfaces, gradually affecting thermal efficiency and airflow behavior. In high-volume operations, the resulting instability can force belt-speed reductions, disrupt product separation and increase the risk of inconsistent product temperatures entering packaging. Freezer suppliers in recent times have concentrated on extending uninterrupted production time while minimizing the need for full defrost shutdowns. One of the clearest recent examples is the Frigoscandia GYRoCOMPACT 70 Spiral Freezer from **JBT Marel**, which is now available with Sequential Defrost technology. According to company, the system allows "up to two weeks of continuous running" while also delivering "a 20% capacity upgrade

without compromising the footprint when compared to its predecessor." The company states that the Sequential Defrost option allows the GC70 "to operate continuously for up to two weeks without the need for frequent defrosting, ensuring uninterrupted production." The emphasis on uninterrupted operation reflects a broader shift across industrial freezing. Multi-week production capability is increasingly treated as a primary performance requirement rather than simply a maintenance advantage. In frozen potato processing, extended shutdowns affect not only freezing but also upstream frying and downstream packaging schedules, reducing effective weekly capacity even when nominal throughput figures remain high. **FPS Food Process Solutions** has similarly focused on long-duration operation and hygienic defrost architecture in its freezing systems. "Our baffle-less SynchroSD defrost system allows multi-week production runs without the use of dirty and complicated coil baffles," the

Versatile high-capacity French fry cutter/potato dicer featuring the SureCut Unit

company explains. It also emphasizes hygienic freezer construction and CIP integration intended to reduce contamination risks while simplifying cleaning procedures. This focus on operational continuity is becoming increasingly common across freezing equipment suppliers because frost management now directly affects available production time.

PRODUCT SEPARATION AND SURFACE STABILITY ARE INCREASINGLY CRITICAL

Frozen potato products respond differently to airflow intensity, residence time and freezing uniformity depending on cut size, coating system and surface condition. Straight-cut fries, crinkle fries, wedges, formed products and coated specialties all behave differently inside the freezer. Poor airflow stability may contribute to clumping, coating instability, product breakage or inconsistent freezing behavior between product layers. Maintaining separation during Individual Quick Freezing (IQF) operations is particularly important because downstream packaging efficiency depends heavily on stable product flow. Clumped product can disrupt weighing accuracy, reduce packaging consistency and create visible quality defects at the retail stage. FPS Food Process Solutions positions its IQF tunnels and spiral systems specifically around freezing consistency across different potato cuts. According to company material, “their systems are engineered to reduce ice crystal formation, thereby preserving texture, flavor, and nutritional content upon thawing.”

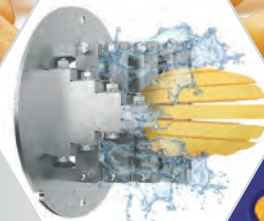
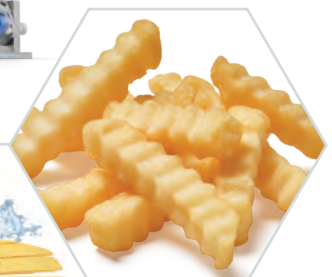
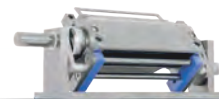
The practical importance of airflow control becomes more pronounced as processors expand premium and coated product ranges. Surface dehydration during freezing directly affects yield, while unstable airflow can damage coatings or alter final preparation characteristics. Frozen potato processors therefore face a narrower operating window than simple throughput figures might suggest. Increasing airflow intensity may improve freezing efficiency, but aggressive airflow can also increase moisture loss and surface damage.

GEA positions its spiral freezing systems to emphasize controlled airflow and thermal consistency for prepared food and potato-processing environments. The company built its systems around stable product treatment during high-capacity operation, reflecting the growing importance of freezing uniformity in preserving downstream handling behavior and final product consistency.

HYGIENE DESIGN DIRECTLY AFFECTS AVAILABLE PRODUCTION TIME

Cleaning and sanitation procedures frequently determine how much usable production capacity a freezer can deliver over the course of a week. Frozen potato processing environments generate starch residue, oil carryover, seasoning accumulation and particulate contamination, particularly in coated and seasoned product categories. Freezer accessibility therefore affects not only food safety compliance but also operational efficiency.

JBT states that engineers working on the latest GC70 redesign “took a deep dive into all the food safety and hygienic aspects of the freezer design,” resulting in “an



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opening of all the profiles on the machine to make it simpler and more straightforward to clean.” The same material highlights redesigned drying functions intended to reduce restart delays after sanitation procedures. According to Torbjörn Persson, director of Global Sales Support & Product Line Management for Frigoscandia Freezers at JBT, “In older models, you had to dry for a longer period: this new version is a lot quicker, which means you cut delays in restarting production.”

FPS has similarly emphasized hygienic freezer architecture in its freezing systems, including CIP-focused construction and coil designs intended to reduce harborage risks. These developments reflect broader pressure from processors attempting to shorten sanitation windows without compromising cleaning effectiveness. This issue becomes more and more important as frozen potato processors diversify product portfolios and shorten production runs. Facilities switching between coated, seasoned and specialty products face greater sanitation complexity than plants focused solely on standardized fry production. Hygienic freezer design therefore affects operational flexibility as much as compliance performance.

COMPACT CAPACITY REMAINS A MAJOR CONSTRAINT

Frozen potato processors continue pushing for higher throughput within facilities that often have limited available floor space. Existing fryers, blanchers, oil management systems, seasoning equipment, packaging lines and cold storage infrastructure restrict the amount of room available for freezer expansion. Spiral freezing systems remain attractive largely because they maximize residence time within relatively compact footprints. JBT states that the GC70 achieves higher capacity by increasing internal headroom while maintaining comparable floor-space requirements. According to Persson,



“The capacity is the big advantage of the GC70: in a relatively small space, we have managed to squeeze more capacity out of the freezer by increasing the headroom, which is of considerable benefit to customers.” This approach reflects broader processor demand for incremental capacity expansion without complete facility redesign. Modular freezer systems, higher-density spiral architectures and optimized product handling configurations allow processors to increase freezing throughput while minimizing disruption to surrounding operations. However, compact capacity also creates additional engineering pressure. Higher product density can accelerate frost accumulation, complicate airflow management and increase sanitation difficulty if freezer design is not carefully optimized. The result is that processors increasingly evaluate freezing systems according to how consistently they can sustain throughput over long production cycles rather than according to peak capacity figures alone.

MONITORING AND AUTOMATION ARE BECOMING STANDARD REQUIREMENTS

Operational monitoring has become increasingly important as processors attempt to reduce downtime and improve freezing consistency across large-scale production environments. Freezers are no longer treated as isolated pieces of equipment. They are steadily integrated into broader production-control and maintenance strategies. FPS has developed a proprietary Remote Monitoring System (RMS) designed to provide processors with

real-time freezer visibility, including alarm status and operational data. According to company material, the RMS platform is intended to provide real-time visibility into freezer performance while supporting preventative maintenance and operational optimization. This type of monitoring is becoming more relevant as processors attempt to extend production runs while minimizing unplanned stoppages.

Freezer instability can quickly affect the rest of the line, particularly in high-capacity frozen potato operations where packaging throughput depends on stable product flow and consistent product temperature. The operational emphasis has therefore shifted toward predictive maintenance, airflow stability and long-duration reliability rather than freezing performance in isolation.

ENERGY ECONOMICS CONTINUE TO INFLUENCE FREEZING STRATEGY

Energy consumption remains one of the most significant operating costs associated with industrial freezing, forcing processors to scrutinize refrigeration efficiency, airflow optimization and freezer architecture more closely than before. In high-volume frozen potato manufacturing, mechanical spiral and IQF systems continue to dominate because processors prioritize sustained throughput, lower operational cost per kilogram and stable integration with continuous processing lines. At the same time, freezing systems are being evaluated less by peak freezing speed alone and more by their ability to sustain uninterrupted production, maintain product separation, minimize dehydration losses and reduce sanitation-related downtime. Suppliers are responding accordingly, with greater focus on sequential defrost systems for longer production runs, hygienic freezer architectures that simplify cleaning access, airflow-management systems designed to stabilize IQF behavior and remote monitoring platforms intended to support predictive maintenance and operational continuity. •



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Urschel: Evolving with Processors' Needs to Support and Diversify



Scott Klockow

The food processing industry is changing quickly, and staying competitive requires constant innovation. From small businesses to global processors, companies are dealing with labor shortages, supply chain disruptions, service demands, and shifting market expectations. In response, Urschel continues to expand and diversify its offerings to help processors improve efficiency, remain competitive, and prepare for future demands.

Scott Klockow, Director of Applications and Product Development, Urschel

Urschel supports food processors and foodservice operators in multiple ways, including expanding its portfolio with KRONEN systems in select regions. These systems give customers more preparation options and the ability to source complete production lines from a single provider, supported by Urschel's global sales, service, and support network. Urschel's commitment to processors and foodservice operators is also reflected in the Little Gem Aspire™ Dicer. Developed by the Urschel Innovation and Development Center and guided by extensive customer research, the Little Gem Aspire Dicer combines a compact footprint with a low overall cost of ownership. The Little Gem Aspire is easy to use, delivers strong performance, reduces operating costs, and helps increase profitability. As The Global Leader in Food Cutting Technology, Urschel manufactures and sells high-capacity food cutting equipment, including slicers, dicers, and the parts needed to maintain Urschel performance and product quality. Urschel crafts and sells thousands of different styles of knives every year, including blades and heads for hydrocutting systems. Hydrocutting processors have struggled to find reliable suppliers

that can meet high-volume demand for heads and knives. Urschel addressed this need by increasing production to support most hydrocutting processors. Urschel has also invested in new knife technology to extend knife and blade life and preserve a precise knife edge. Urschel built its new Knife Lab to support continuous research and development focused on refining every step of the knife-making process for specific cutting applications.

URSCHEL OFFERS EVEN MORE SOLUTIONS THROUGH KRONEN SYSTEMS

To offer growing capabilities to customers, Urschel expanded its portfolio via an investment in Germany-based KRONEN GmbH. Alongside its industry-leading cutting solutions, Urschel now offers complete processing systems, including washing, drying, and peeling to more fully adapt to food processing and food service needs. With the addition of complementary KRONEN equipment, Urschel has broadened its inventory with diverse processing solutions to help customers increase overall productivity. The Urschel global network currently offers KRONEN systems throughout the U.S., Mexico, Italy, and throughout Asia. Urschel customers have long

valued the service, support, and quality found in purchasing Urschel machinery. Adding KRONEN to the Urschel portfolio presents a wider range in processing solutions beyond solely precision-cutting machinery. Now, many Urschel customers are relying on the company to support them in the building of processing lines. As a result, Urschel has evolved into their partner in processing line solutions, broadening capabilities and strengthening abilities to meet diverse production needs. More capabilities are now offered to Urschel customers with productivity innovations, including the DECONWA preparation system, which decontaminates product ahead of production. Processors can turn to the DECONWA for optimal sanitation from the moment product enters their facility, reducing reliance on manual preparation. In addition, various KRONEN preparation tables allow processors to sort, inspect, and organize product prior to the cutting stage. KRONEN peeling, trimming, and washing solutions work with Urschel equipment for optimal potato processing. The HEWA washer range uses helical washing for increased retention without a larger footprint and can be paired with K650 or K850 vertical dryers for an efficient, sanitary, end-to-end

system. Automated spin dryers and takeaway conveyors further streamline productivity. By incorporating both Urschel and KRONEN machinery into their production lines, processors can ensure a smooth transition during each production stage with easy use – from preparation to high-precision cutting to final handling – creating a complete system guided by a single Urschel point of contact for successful operations.

URSCHEL INTRODUCES A NEW CUTTING METHOD: LITTLE GEM ASPIRE DICER

The Little Gem Aspire Dicer is Urschel’s latest development in produce processing, backed by extensive research and development and patented Urschel technologies to deliver precision cutting methods. Featuring a small footprint ideal for processors working with smaller capacity applications or where limited production space may be limited, the Little Gem Aspire Dicer features a StatiCut™ assembly with specialty knives designed to easily switch from one cut size to the next. With fewer parts to maintain and inventory, the dicer decreases overall operational costs and increases profits. Engineered for a low total



cost of ownership - from initial investment to ongoing operation - the Little Gem Aspire Dicer offers ease of use, compact design, and high overall performance.

MEETING THE GROWING NEEDS OF HYDROCUTTING

Hydrocutting is a key component in how many potato-based foods are processed, allowing massive volumes of potatoes to be processed efficiently and quickly. Pressurized water shoots the potatoes through a knife block consisting of sharp blades, efficiently cutting them into the recognizable shapes of French fries, wedges, and other favorable snacks.

The style of knife, usually crinkle or flat, and head configuration control the type of cut.

With hydrocutting knives in high demand, processors rely on Urschel for sharp precision blades. Backed by extensive market research, Urschel has been a strong supporter in hydrocutting operations through the manufacture of a wide range of popular knife blocks in both 3" (76.2 mm) and 4" (101.6 mm) diameter configurations. The new Urschel Knife Lab allows knowledgeable, in-house production teams to closely evaluate the manufacturing process, ensuring a cohesive



balance between knife sharpness and toughness. Each blade is designed to maintain incredible acuteness at the edge in rugged production environments. Hydrocutting processors can quickly exchange Urschel knife blocks or water knife heads to accommodate different cut styles or to replace dull blades, deterring downtime and ensuring consistent sharp cuts for a quality end-product. Using Urschel-supplied blades, customers can maximize knife life and increase cut quality. Processors can consult Urschel for a comprehensive analysis on their current knife build implemented in their hydrocutting system. Urschel will analyze the set up to determine a consistent knife configuration for their operation based on production goals. Depend on Urschel knives and knife blocks as invaluable tools to deliver accurate, efficient hydrocutting efforts.

SUPPORTING GLOBAL PROCESSORS

Urschel further supports processors globally by manufacturing precision, high-capacity potato cutting machinery. While hydrocutting works well for some products and processors, other processors prefer the versatility and flexibility Urschel cutting machinery delivers.

The Urschel Model CC Slicer remains the industry-leader for the processing of potato chips/crisps. The revolutionary operating principle remains the market standard. Leading processors rely on the CC to deliver a targeted precision thickness. This provides even fry times, less oil, and lower costs overall. The CC Series, when paired with the SL-14 Slicing Head or SH-14 Shred Head, additionally maximizes precision potato slicing and shredding.

Another Urschel line for potato processing, the DiversaCut Series, offers numerous options including crinkle, deep crinkle, and potato dices and strips for French fries and other potato products. For applications requiring flaking or particle size reduction, the Urschel Comitrol Series offers solutions



seldomly matched in the potato processing sector.

As the global leader, Urschel supports potato production at every stage with durable cutting equipment, in-house manufacturing of critical parts and knives, and a worldwide support network. These rugged, long-lasting solutions help reduce changeovers and maintain consistent, efficient production. Backed by over a century of expertise, Urschel supports potato processors at every stage of production and remains a valued, trusted partner in food and potato production.

Potato processors rely on the strength of the Urschel global

network. Urschel direct offices work as a unified team to meet regional processing needs and stay closely connected to the areas they serve. This local presence helps the company understand production challenges and deliver the right solutions. With global reach and local insight, Urschel stays connected, responsive, and ready to support customers. Customers are welcome to test cut their products on Urschel or KRONEN machinery free of charge to determine the optimal cutting solution for their application. Visit Urschel.com for more information on how Urschel can help support your potato production. •





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A New Standard Of Proof: Food Safety In Potato Processing Operations

Food safety in potato processing has always depended on control. Control of raw materials arriving from the field. Control of temperatures during frying. Control of seasoning application, sanitation procedures, packaging integrity, and foreign material risks. What has changed is the amount of information available to support those controls.

By Tudor Vintiloiu



Modern processors generate vast quantities of operational data throughout production. Sensors monitor temperatures, inspection systems detect contaminants, software records process parameters, and automated equipment continuously reports performance metrics. What was once captured through manual checks and paper records is now being collected, stored, and analyzed electronically. This shift is being driven by more than technological progress. Regulators, retailers, and food manufacturers are demanding greater transparency and

faster access to information. As a result, digitalization is becoming a central element of food safety management across the potato industry. Data is no longer simply a record of what happened. It has become an active tool for preventing problems, improving traceability, and demonstrating compliance.

REGULATORY MOMENTUM TOWARD CONNECTED SAFETY

The U.S. Food and Drug Administration has placed digitalization at the center of its New Era of Smarter Food Safety initiative.

The agency's vision focuses on creating a more traceable and transparent food system through technology, data sharing, and modern monitoring tools. One of the blueprint's core pillars is tech-enabled traceability, intended to support faster identification and removal of potentially unsafe food products from the market.

The FDA's Food Traceability Final Rule under the Food Safety Modernization Act reinforces this direction. Companies covered by the rule must maintain detailed traceability records and provide requested information to regulators within 24 hours. The



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requirement reflects a broader regulatory expectation that critical food-safety information should be readily accessible, searchable, and linked throughout the supply chain. For potato processors, the implications extend well beyond regulatory compliance. A digital traceability system can connect incoming raw materials, processing conditions, inspection results, packaging records, storage data, and shipment information into a single chain of evidence. During a food-safety investigation or recall, that connection can dramatically reduce response times while limiting the scope of affected products.

THE DIGITAL FOUNDATION: METTLER-TOLEDO ON DATA AND TRACEABILITY

According to Ian Scott-Mance, Technology Manager at Mettler-Toledo Product Inspection, “digital food safety can no longer be put on the back burner.” He points to initiatives such as the FDA’s New Era of Smarter Food Safety and the Global Food Safety Initiative’s Race to the Top as clear signals that digital track-and-trace capabilities are becoming more important throughout the food industry. Scott-Mance argues that any successful digital food-safety strategy begins with data collection. “Food manufacturers must begin focusing on data collection, which is the essential starting point for any project that seeks to improve food safety through greater traceability,” he writes. Many food manufacturers continue to operate with fragmented systems. Some information is stored electronically, while other records remain on paper forms, spreadsheets, USB devices, or stand-alone equipment. This creates gaps that can complicate audits, investigations, and process improvement efforts. For potato processors, relevant data may originate from dozens of sources across a facility. Optical sorters, metal detectors, X-ray systems, checkweighers, fryer controls, packaging machines, warehouse systems, and sanitation records all contribute information that can strengthen food-safety programs when properly connected. Scott-Mance recommends that



manufacturers first evaluate existing data streams before defining long-term objectives. Whether the goal is compliance, production optimization, or broader Industry 4.0 initiatives, success depends on a coordinated approach that connects production, engineering, maintenance, quality assurance, and logistics around a common strategy.

AUTOMATION, INSPECTION AND HYGIENIC DESIGN

While data provides visibility, automation helps convert that visibility into action. Steve Burgess, General Manager – Europe & Africa at tna solutions, argues that food safety should not be viewed as a collection of final checks. “Safety isn’t a matter of final checks or regulatory box-ticking. It is a continuous, science-led process,” he writes. This perspective aligns closely with the realities of potato processing. High-capacity production lines rely on precise control of temperatures, dwell times, seasoning application rates, moisture levels, and packaging performance. Small deviations can affect product quality, food safety, or both. Foreign material prevention remains one of the most visible examples. Food recalls involving metal, plastic, or rubber contamination continue to occur across the food industry. Such incidents often originate from equipment wear, damaged components, or human error. Modern inspection technologies provide multiple layers of protection. Optical sorting systems remove defects and unwanted material before processing. Metal detectors and X-ray systems inspect finished products before packaging. Automated reject mechanisms remove suspect products without disrupting production flow. The value of these systems extends beyond detection. Inspection

equipment generates large volumes of performance data that can reveal emerging issues before they become serious problems. An increase in rejection rates may indicate equipment deterioration, process instability, or maintenance requirements that warrant investigation.

DIGITAL CONTROL OF CRITICAL FOOD SAFETY PARAMETERS

One of the strongest arguments for connected food-safety systems is their ability to support continuous process verification. Frying operations illustrate this particularly well. Temperature stability influences product quality, consistency, and chemical hazard management. Modern fryer systems incorporate monitoring and control technologies capable of maintaining target conditions throughout production runs while generating records that support verification efforts. Seasoning systems offer another example. Automated gravimetric technologies can help maintain accurate application rates and support formulation consistency. The resulting data creates a documented record of process performance while helping operators identify deviations quickly. Sanitation programs are also becoming more data-driven. Electronic cleaning records, digital verification tools, and integrated reporting systems allow processors to demonstrate that procedures were completed according to specification. Historical information can be reviewed during audits, customer visits, or internal investigations without relying on paper archives. Fresh-cut and chilled potato operations may benefit particularly from this approach. Environmental monitoring programs, temperature controls, and sanitation verification activities generate large quantities of information. Automated collection and reporting systems help

transform that information into actionable insights.

EXTENDING TRACEABILITY BEYOND THE FACTORY

Food safety does not begin at the processing line, nor does it end at the packaging machine. Potato processors depend on complex supply chains that include growers, storage facilities, transportation providers, ingredient suppliers, packaging suppliers, warehouses, and distributors. Effective traceability requires visibility across each stage. As regulatory expectations continue to evolve, this level of visibility is becoming an important operational capability rather than a competitive advantage.

MANAGING THE HUMAN FACTOR

Technology alone cannot deliver food safety. Scott-Mance emphasizes that

digitalization requires employee engagement and acceptance. New systems must be supported by appropriate training and integrated into daily operations. Operators, supervisors, maintenance personnel, and quality teams all play a role in ensuring that information is collected accurately and used effectively. The most effective systems simplify decision-making through clear dashboards, alerts, and reporting tools. Technology improves visibility, but employees remain responsible for interpreting information, investigating anomalies, and implementing corrective actions.

TOWARD A CULTURE OF CONTINUOUS VERIFICATION

The potato industry is moving away from a model built primarily on periodic checks and retrospective reviews. In its place, processors are building systems capable of continuous monitoring, ongoing

verification, and faster response. Within these environments, sensors, inspection devices, process controls, and software platforms work together to create a comprehensive picture of food-safety performance. Information flows throughout the facility, supporting preventive action rather than reactive correction. The message from regulators, auditors, and technology providers is consistent. Effective food safety requires visibility, traceability, and access to reliable production data. Companies that can capture information effectively and transform it into operational insight will be better positioned to meet compliance requirements, reduce risk, and improve performance. For potato processors, digital food safety is no longer a future objective. It is evolving into a core operational requirement, and data is emerging as one of the industry's most valuable food-safety resources. •



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Beyond Sunflower Oil: A Technical Guide For Artisan Chip Producers



Frying oil selection determines oxidation rate, finished product shelf life, flavor stability, fryer cleaning frequency, filtration load, acrylamide formation, and oil absorption behavior in potato chip production.

By Tudor Vintiloiu

For smaller processors operating batch systems, these effects become more pronounced because oil turnover is slower and thermal cycling is more aggressive than in large continuous frying operations. In continuous industrial systems, oil is replenished steadily and degradation products are diluted more effectively. Smaller kettle and batch processors often operate under entirely different conditions: repeated heating and cooling cycles, lower production volumes, longer idle periods, and less advanced filtration systems. Under these conditions, oil chemistry changes rapidly. Polymerized compounds accumulate faster, viscosity rises earlier, and oxidative breakdown becomes a direct product quality issue rather than a long-term maintenance concern.

WHY CONVENTIONAL SUNFLOWER OIL LOST FAVOR

Standard sunflower oil was historically attractive because of its neutral sensory profile and relatively low cost. For processors in Europe, regional availability also simplified procurement. The problem is its fatty acid profile. Conventional sunflower oil contains high levels of linoleic acid, a polyunsaturated fatty acid highly susceptible to oxidation during repeated frying.

Under commercial frying conditions, oxidation generates aldehydes, ketones, total polar compounds (TPC), and polymerized triglycerides. These compounds affect both fryer performance and finished product quality. In potato chips, the impact appears quickly through stale flavor development, darker fry color, reduced shelf stability, and higher rancidity risk during storage.

For smaller processors, degradation accelerates because intermittent operation repeatedly exposes hot oil to oxygen without the stabilizing effect of continuous product throughput. During idle periods, oxygen exposure continues while moisture load drops, increasing oxidative stress. This became especially problematic as processors moved toward premium kettle-style products with lower seasoning coverage and more exposed potato flavor characteristics. Under those conditions, degraded oil notes become easier for consumers to detect.

HIGH-OLEIC SUNFLOWER OIL AS THE CURRENT REFERENCE STANDARD

For premium potato chip manufacturers, high-oleic sunflower oil has become one of the dominant alternatives because it improves oxidative stability without fundamentally changing flavor profile or consumer perception.

The difference lies in fatty acid composition. High-oleic sunflower oil contains substantially higher mono-unsaturated fatty acid content and significantly reduced linoleic acid levels. This improves resistance to thermal oxidation while maintaining a neutral taste profile suited to potato chips. Cargill's Clear Valley high-oleic sunflower oil range and ADM's high-oleic frying oils are both positioned specifically for frying applications requiring improved stability and longer fry life. Bunge also markets high-oleic frying systems for snack production under its Nutra-Clear portfolio. In practice, processors using high-oleic sunflower oil typically report lower foam formation, slower viscosity increase, cleaner fryer walls, and more stable flavor over extended production campaigns. The reduction in oxidative byproducts also supports shelf-life consistency, particularly for lightly seasoned kettle chips where oil flavor remains highly exposed. For smaller producers, one of the most important operational advantages is reduced oil discard frequency. Fry life extension directly affects production economics because oil replacement costs in small batch systems are proportionally higher than in large industrial operations.

RICE BRAN OIL AND THERMAL STABILITY

Rice bran oil has gained traction among smaller premium snack manufacturers because of its thermal stability and relatively strong antioxidant composition. Naturally occurring tocopherols and gamma-oryzanol compounds improve resistance to oxidative breakdown under repeated frying conditions.

Ricela and King Rice Oil Group are among the suppliers actively positioning rice bran oil for high-temperature food processing applications. In North America and Europe, several specialty ingredient distributors now offer stabilized rice bran frying oils targeted at premium snack manufacturers.

Operationally, rice bran oil performs particularly well in intermittent frying environments where thermal cycling creates unstable oxidative conditions. The oil also tends to produce relatively clean sensory characteristics with limited flavor carryover between production runs.

Rice bran oil also demonstrates favorable drainage behavior after frying. Lower residual surface oil on chips can improve texture perception and reduce greasy mouthfeel in kettle-style products.

The limitations are primarily commercial rather than technical. Rice bran oil remains more expensive than high-oleic sunflower oil, regional supply can be inconsistent, and large-volume availability remains limited outside Asia. For small processors operating close to cost thresholds, full conversion to rice bran oil may be difficult to justify operationally.

PALM OLEIN AND THE SUSTAINABILITY CONSTRAINT

From a purely technical perspective, palm olein remains one of the strongest frying oils available for potato chip processing. Its oxidative stability under repeated thermal stress is well documented, and its resistance to polymerization provides long fry life with relatively stable viscosity characteristics. IOI Loders Croklaan and Wilmar both supply palm-derived frying oils engineered specifically for commercial snack frying applications. These systems are widely used in industrial snack production because of their stability under continuous thermal load. Palm olein also tends to generate lower levels of oxidative degradation products compared to highly polyunsaturated oils during repeated frying cycles. For processors struggling with excessive foaming, rapid darkening, or unstable fryer performance, palm-based systems can significantly improve operational stability.

THE CHALLENGE IS COMMERCIAL POSITIONING

Premium snack brands increasingly face pressure around sustainability disclosure, deforestation concerns, and consumer resistance to palm-derived ingredients. Even when processors use RSPO-certified segregated palm oil systems, perception challenges remain.

REGULATORY PRESSURE AND OIL MANAGEMENT

Oil selection increasingly intersects with compliance management. In the European Union, Commission Regulation (EU) 2017/2158 requires food businesses to implement acrylamide mitigation measures,

making frying consistency and oil condition important process variables. While potato composition and frying parameters remain the primary drivers of acrylamide formation, degraded oil can contribute to unstable frying performance and color development. Many European authorities also monitor total polar compounds (TPC) as an indicator of oil degradation. Excessive TPC levels can signal deteriorating oil quality and increase operational risk. For smaller processors, maintaining oil quality through effective filtration, controlled turnover rates, and regular monitoring is often as important as the choice of frying oil itself. •

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APAC And ANZ Potatoes: Growth Continues, But Conditions Tighten

Potato availability across Asia-Pacific and Australia–New Zealand remains broadly stable in mid-2026, but the conditions under which value is created are changing. The dominant pressures affecting the sector are no longer centered on aggregate supply or headline production growth. Instead, commercial performance is increasingly shaped by processing suitability, phytosanitary compliance, disease management, logistics exposure and access to higher-value destinations. Across both fresh and processing segments, operators are finding that not all available tonnes carry equal commercial value.

By Tudor Vintiloiu

Recent production data illustrates the scale of the regional market. According to FAOSTAT reporting released in early 2026, global potato production reached approximately 390.4 million tonnes in 2024. Asia accounted for 52.6% of total output, reinforcing the region's position as the center of gravity for global potato production. China remained by far the world's largest producer, with output approaching 94 million tonnes. These figures matter not simply because of volume but because they underline where future processing capacity, quality standards and procurement practices are increasingly being established. At the same time, several developments during the first half of 2026 have highlighted a broader shift underway across the region. China's continued movement toward processing, renewed negotiations over Japanese fresh potato access, Taiwan's revised approach to processing imports and Australia's response to potato mop-

top virus have all pointed in the same direction: the market is becoming more selective in how potatoes move from field to final application.

PROCESSING DEMAND CONTINUES TO RESHAPE REGIONAL ECONOMICS

The strongest structural change affecting the potato sector in APAC remains the continued expansion of industrial processing. While fresh consumption remains dominant across many markets, a growing proportion of production is being directed into frozen products, foodservice applications and industrial ingredient streams. China provides the clearest example of this transition. Industry analysis published during 2026 indicated that approximately 15% of Chinese potato production is now entering processing applications. In absolute terms, that remains below mature processing economies in Europe and North America, but the trajectory is more important than the current level. China's

potato economy is gradually shifting from one built primarily around volume production toward one increasingly structured around conversion efficiency and industrial utilization. That distinction has operational consequences throughout the supply chain. Processing systems reward different characteristics than fresh markets. Processors place greater emphasis on dry matter stability, defect control, storage performance, sugar management and harvest consistency because those variables directly influence finished-product yield and operating cost. A hectare producing more tonnes does not necessarily create more value if a greater share falls outside processing specifications. Research published by Rabobank has shown that global potato processing capacity has expanded steadily over the last decade, with investment increasingly occurring closer to consumption markets. The expansion of frozen products and quick-service channels across Asia has accelerated

that trend. Rather than relying entirely on imported finished products, markets are investing in domestic conversion capacity. For exporters into APAC, this changes competitive positioning. Supply availability alone becomes a weaker differentiator once processing infrastructure exists locally. Exporters increasingly compete against regional manufacturing economics rather than simple shortages of product. For growers, meanwhile, production decisions become more closely linked to contract requirements and quality specifications than to open-market opportunities. The result is that processing growth is not reducing competitive pressure. In many cases, it is increasing it.

MARKET ACCESS REMAINS A COMMERCIAL ADVANTAGE IN FRESH POTATOES
Despite continued processing expansion, fresh potatoes remain

strategically important across the region, particularly in markets where import requirements are highly structured and price premiums justify compliance costs. Japan remains the clearest example. During 2026, the U.S. potato industry renewed its push to secure broader access for fresh potatoes into Japan, supported by USDA engagement and political pressure from lawmakers. While the discussion focuses publicly on market opening, the underlying issue extends beyond bilateral trade volumes. Japanese import conditions remain among the most closely watched access frameworks in the region because they combine phytosanitary requirements with commercial expectations around consistency and traceability. Entry into these markets serves not only as a route to sales but increasingly as proof of operational capability. That creates a wider effect across APAC. Exporters supplying premium fresh channels are being pushed toward more formal

quality systems, stronger field controls and tighter movement documentation. Compliance becomes part of the product itself. The commercial trade-off is straightforward. Higher compliance standards increase cost and operational complexity, but they also create barriers that protect suppliers capable of meeting them. This dynamic is becoming increasingly relevant for producers in Australia and New Zealand, where export competitiveness is often linked more closely to reliability and quality performance than to scale.

TAIWAN'S REGULATORY CHANGES REFLECT A MORE TARGETED APPROACH TO PROCESSING TRADE
If Japan demonstrates the strategic importance of fresh-market access, Taiwan illustrates how processing trade rules are becoming more specialized. Taiwan revised inspection requirements for imported U.S.



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processing potatoes during 2026 and adopted a more differentiated framework based on intended product use. Under revised conditions, certain quality issues no longer automatically result in rejection of entire consignments if affected material can be identified, removed and managed within controlled processing systems. The change appears administrative, but its implications extend well beyond inspection procedures. Historically, border controls often concentrated quality risk at the point of entry. Taiwan's approach shifts part of that responsibility downstream, requiring processors themselves to manage segregation and compliance. Operationally, this favors plants with stronger intake controls, inspection capability and traceability systems. Access to raw material may become more flexible, but the burden of proving control increases inside the factory. This reflects a wider trend becoming visible across regional food supply chains. Regulatory systems are becoming more destination-specific and more operationally integrated. Processing channels are increasingly treated differently from fresh channels, with compliance expectations tailored to actual product use rather than universal standards. That shift creates opportunities for processors with mature quality systems while increasing pressure on those operating with limited flexibility.

AUSTRALIA'S BIOSECURITY RESPONSE SHOWS HOW QUICKLY PLANT HEALTH BECOMES COMMERCIAL RISK

The most immediate issue affecting ANZ potato operators during 2026 has not been demand growth or pricing pressure. It has been disease management. The detection of potato mop-top virus in Tasmania triggered movement controls, revised import conditions and a broader reassessment of how regional potato systems respond to plant health threats. Industry attention quickly expanded beyond containment itself and toward understanding the longer-term implications for supply continuity. PMTV does not create food safety concerns, but its commercial consequences can be substantial. Depending on severity and market

destination, infection can reduce yield performance and create internal tuber defects that affect processing suitability and marketability. For processors, these effects appear directly on operating metrics. Internal defects reduce usable raw material, increase sorting losses and lower finished-product recovery. Throughput efficiency becomes harder to maintain and specification compliance becomes more difficult to achieve. For fresh suppliers, the consequences appear elsewhere. Movement controls, destination restrictions and additional verification requirements can disrupt established trade flows even before production impacts become fully visible.

Australia's interest in examining New Zealand's experience managing potato disease reflects a broader recognition that biosecurity capability increasingly influences commercial resilience. Disease response is becoming part of supply-chain management rather than remaining solely an agronomic issue. That changes how operators evaluate risk.

GLOBAL PRICE SIGNALS CONTINUE TO INFLUENCE REGIONAL DECISIONS

Although APAC and ANZ remain relatively protected from some of the direct volatility seen in Europe, pricing dynamics are becoming increasingly interconnected. Recent market reporting highlighted unusual pricing behavior linked to European oversupply conditions occurring at the same time as geopolitical uncertainty influenced futures sentiment. Those conditions do not automatically translate into regional price movements, but they do influence procurement decisions. Importers and processors increasingly benchmark local economics against international alternatives even when procurement remains domestic. As processing trade becomes more global, price comparisons happen faster and more frequently. Buyers

preserve flexibility, delay commitments and shorten purchasing windows where possible. Inventory strategies also become more conservative as operators attempt to limit exposure. Australia and New Zealand remain advantaged by established domestic systems and geographic distance from major production regions, but these advantages do not eliminate pressure from imported finished products or changing procurement expectations. Operational performance remains the stronger defense.

COMMERCIAL QUALIFICATION IS BECOMING MORE VALUABLE THAN PRODUCTION VOLUME

The first half of 2026 has not produced evidence of broad potato scarcity across APAC and ANZ. Instead, it has reinforced a different reality: commercially qualified supply is becoming more valuable than total supply. China continues directing more production into industrial channels. Japan remains a strategically important access market shaped by compliance requirements. Taiwan is moving toward more specialized processing oversight. Australia's response to PMTV demonstrates how quickly plant health concerns can become operational constraints. These developments do not point toward contraction. They point toward a market where value increasingly accumulates around potatoes that meet increasingly specific technical, regulatory and commercial requirements. For growers, that raises the importance of specification discipline and market alignment. For processors, it reinforces a familiar objective: convert a larger share of every contracted tonne into compliant output while maintaining operational efficiency. The competitive divide is becoming less about who can produce more and increasingly about who can keep more of what they produce commercially usable. •

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The Snack Adventurers

The increasingly adventurous nature of many consumers presents numerous opportunities for manufacturers of potato crisps and chips. These categories continue to represent one of the most popular forms of snack worldwide. The market is largely made up of chips (or crisps as they are called in parts of the world such as the UK), which are manufactured by thinly slicing potatoes and then cooking them until crunchy, either by frying or baking.

By Jonathan Thomas





Global sales continue to hold up well, despite pressure from the health lobby and strong competition from other snack foods such as biscuits, chocolates, nuts and various emerging products (e.g. snacks based around foodstuffs like vegetables, legumes and cereals/grains). Although estimates vary, global sales of potato crisps and chips were valued by MR Future at more than USD39bn in 2025. Global market value is forecast to reach USD55.4bn by 2035, with annual growth averaging almost 4%. Much of this growth is being driven by rising demand for packaged and convenient snacks, especially in less developed parts of the world where westernized diets are becoming more commonplace. Other growth drivers at present include greater experimentation by manufacturers with flavors and textures as consumers are more inclined to seek out premium and/or gourmet products. Market growth has also been aided by the enduring popularity of snack foods. According to the sixth edition of the State of Snacking Report from Mondelez International (which canvassed the opinions of almost 3,800 adults in 12 countries), 91% of respondents snacked at least once during a typical day. This figure decreased to 63% for those who snacked at least twice and 31% for those who ate at least three snack foods. There is also a growing tendency for people to replace formal meals with snack foods, especially in the younger age groups. Over 70% of millennials and those belonging to Generation Z said they preferred to eat several small meals during the day instead of a few large ones, compared with 50% of boomers and Generation X consumers.

FLAVOURS & TEXTURES

Flavor remains an important selling point for potato chips and crisps throughout the world. One of the main insights from the latest Mondelez research mentioned previously was the fact that snack foods have come to represent something of a sensory experience for many consumers. A significant 95% of consumers take time to savor the flavor, taste and texture of snacks when eating them. Furthermore, 94% felt confident about being able to find a snack offering a unique taste and flavor, which suggests that manufacturers are managing to meet this evolving consumer demand quite successfully.

The importance of flavor as a product attribute is highlighted by the fact that 83% of respondents said this was something they were unwilling to sacrifice when seeking out indulgent types of snack food. Furthermore, the increased demand for bold and innovative flavors dovetails with the fact that more people now consider themselves a 'snack adventurer', i.e. someone eager to experiment with different varieties of snack foods offering a novel taste experience. According to the Mondelez research, 67% of respondents fell into this category in 2024, up from 59% the previous year. As might be expected, this trend is especially prevalent amongst younger consumers, with 77% of millennials and those in Generation Z describing themselves as a snack adventurer. In many instances, regular use of social media platforms is a big influence on this type of behavior.

As levels of innovation have risen, there now exists a huge and diverse range of flavors within the global market for potato crisps and chips, based on various meats, cheeses and sauces, as well as inspired by

numerous ethnic cuisines. That said, the traditional favorites continue to dominate in many parts of the world. In the UK market, Cheese & Onion is the most popular flavor, ahead of Ready Salted, Salt & Vinegar, Prawn Cocktail, Roast Chicken and Smoky Bacon. The German market, meanwhile, continues to be dominated by varieties based on paprika, which are sometimes promoted as an ideal accompaniment to beer drinking. Elsewhere in the world, the large US market is somewhat different, in that large sections of the population still gravitate towards plain-flavored potato chips as a first choice, rather than actively seeking out novel or innovative flavors. However, this situation is rapidly changing as tastes evolve. Some regional differences exist as far as flavor preferences are concerned – for example, Barbecue dominates in many southern states (especially Texas), whereas Sour Cream & Onion enjoys a strong following in places such as California, Louisiana and Kentucky. Salt & Vinegar is popular on parts of the East Coast (e.g. New York, New Jersey and South Carolina), whereas Cheese is a preferred variety in states such as Pennsylvania, Wyoming and Connecticut. Across much of the western world, the market is experiencing greater experimentation with hotter, bolder flavors which provide more novel and interesting taste sensations. These are especially popular with younger consumers, who are generally more inclined to seek out bolder flavors. One recent development in European markets such as the UK has been the emergence of what have sometimes been dubbed 'fusion flavors', whereby different taste profiles are combined to produce a new sensation. Notable examples have included 'fricy' (i.e. combining fruit and spicy flavors) and



'swicy' (i.e. combining sweet and spicy flavors). Many of these have their origins in cuisines from parts of the world such as Latin America and South-East Asia, exposure to which has increased due to the growth of the street foods market. In the UK market, market leader Walkers extended its range at the beginning of 2026 with new Sticky Teriyaki and Masala Chicken crisps, drawing inspiration from Japanese and Indian cooking respectively. The company's range also encompasses the Extra Flamin' Hot sub-brand, which is used for Walkers Max, Doritos and Wotsits. In 2025, this was awarded Product of the Year for the Crisps & Bagged Snacks category, following a survey of 8,000 consumers by Kantar. Extra Flamin' Hot was described as adding "a new level of heat for those who want more from their snack." Other similar launches in the UK market have included Cajun Barbecue flavor crisps from Fairfield's Farm in May 2026, which was

described as having a "rich, smoky profile", and the return of Hula Hoops Flavorings courtesy of KP Snacks, available in Spicy and Big 'n' Beefy flavors. This trend has also been apparent within the German market. The Funny-Frisch range has recently been extended with new ridged crisps under the Intense sub-brand, which were introduced in Sweet & Spicy Curry, Juicy Paprika and Perky Pepper flavors. During the spring of 2026, PepsiCo also launched new flavors for its chips and crisps to capitalize on the upcoming football World Cup, under brands such as Lay's and Walkers. In most instances, these flavors are based on dishes and/or ingredients associated with the countries taking part in the tournament. Examples included Bangers & Mash (England), Chorizo & Onion (Portugal), Queso (Spain), French Onion Soup (France), Bacon Poutine (Canada), Garlic Shrimp (Mexico), Kielbasa (Poland), Pollo a la Brasa (Peru), Steak & Chimichurri (Argentina), Brazilian-

Style Garlic Sauce (Brazil), Pickled Lemon (Saudi Arabia) and Nashville Hot Chicken (US). This latest example indicates that major sporting tournaments and competitions remain a potentially profitable source of innovation for manufacturers of snack foods. Texture also represents a frequent source of innovation within the market for potato crisps and chips. Thicker, ridge-cut crisps command a sizeable following amongst consumers, with the fact that many are positioned towards the premium end of the market also aiding their popularity amongst people seeking out more indulgent snacks. For similar reasons, the popularity of crisps and chips marketed as hand cooked is also rising, as many offer a thicker and crunchier texture as well as a diversity of innovative and upmarket flavors. In addition, both ridged and hand cooked crisps are especially well suited to eating with a dip (e.g. salsa, guacamole, etc.). The UK's leading brand within this sector is McCoys, which is owned by

KP Snacks and is now worth around GBP190m per year at the retail level. McCoys is also well-known for its range of flavors, having been extended in the summer of 2025 with two new limited edition varieties inspired by the NFL, namely Buffalo Chicken and Secret Burger Sauce. This formed part of a wider promotion, with the top prize being a trip to Super Bowl LX in California. PepsiCo also competes in the UK market for ridged crisps via its Walkers Max brand, which is now worth almost GBP69m at the retail level. This range also encompasses bold flavors, examples of which include Punchy Paprika, Strong Hot Chicken Wings and Strong Jalapeno & Cheese. Other brands present in the UK market include Tyrrells Furrows (which forms part of the GBP70m Tyrrells range) and Burts Ridges, which was extended in the spring of 2025 with a new Cheddar & Caramelized Onion Chutney flavor, made using locally sourced cheese. The desire for different textures has also contributed to the growth of the market for batch-fried products, or kettle crisps/chips as they are often called. These are prepared using a process known as batch cooking, which results in harder and crunchier products. The sector's best-known brand is Kettle Chips, which competes in markets such as the UK and the US.

HEALTH TRENDS

Even though many people remain interested in exploring premium crisps and chips with novel flavors and/or textures, health is still a key driver of NPD in many western markets. According to the Mondelez research, ingredients are a key consideration for many consumers, especially those belonging to the younger age groups. The study found that 38% of respondents pay attention to ingredients they believe are beneficial to health when eating snack foods, a figure that rises to 41% of millennials. Furthermore, 78% preferred manufacturers to prioritize the use of quality ingredients in their snack foods, rather than focusing upon calorie levels. The Mondelez research also found that 74% of respondents claimed to prefer snacking on foods with high

nutritional qualities, rising to 80% of millennials. Another significant finding was that 45% of consumers claimed to snack to meet nutritional requirements or to take care of their bodies. At 52%, this figure was higher for millennials and Generation Z consumers, but lower (36%) for boomers and those in Generation X. Pressure from both consumers and the health lobby remains as strong as ever, with the result that manufacturers of potato crisps and chips have been reformulating their products to improve their nutritional profile. Typical examples have included the removal of artificial additives and ingredients to satisfy clean-label demands, as well as lowering levels of salt and saturated fats. In the case of the UK, this has been partly driven by the introduction of the legislation regarding foods high in fat, sugar or salt (HFSS) and the new restrictions on advertising and promoting these products. Manufacturers of potato crisps and chips have also been turning towards healthier oils used during the production process – examples include extra virgin olive oil and avocado oil, both of which have recognized heart health benefits. Additionally, companies have also been experimenting with alternatives to frying such as oven baking, which has been shown to reduce fat levels. Meanwhile, the appetite for organic crisps and chips appears to be growing – according to Technavio, the global market is poised to increase by an annual average of almost 6% in the years leading up to 2028. As is the case with other snack foods, interest is also growing in portion-controlled products. The Mondelez research found that 69% of respondents sought out portion-controlled snacks for mostly health reasons – this figure was up from 67% the previous year, but down from 72% in 2021. The preference for portion-controlled snacks was highest amongst the younger generations, with 74% opting for these compared with 62% for boomers and Generation X consumers. Furthermore, 38% of respondents claimed it was important to enjoy snack foods in moderation. •



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Inspection Intelligence At Interpack 2026: Conversations On Detection, Digitalization, And AI-Enhanced Quality Control

At interpack 2026 in Düsseldorf, inspection technology suppliers were increasingly positioning their systems as contributors not only to food safety but also to productivity, yield optimization, quality assurance, and operational stability. For potato processors operating under growing pressure to improve throughput while reducing giveaway and maintaining compliance, those conversations carried particular relevance.

By Tudor Vintiloiu

During the exhibition, Potato Processing International caught up with two specialists from Mettler-Toledo to discuss how inspection requirements are evolving and where the company sees the next stage of development taking shape. **Stuart Preston, Business Development Manager at Mettler-Toledo International**, focused on developments in metal detection and the challenge of improving sensitivity without creating unnecessary rejects. Later, **Adam Green, Customer Solutions Manager at METTLER-TOLEDO SAFELINE X-RAY**, discussed developments in X-ray inspection and explained how AI-enabled inspection tools are being introduced into quality control applications. Across both conversations, several themes emerged repeatedly: managing product variability, reducing false rejects, improving yield, simplifying compliance, and creating inspection systems that support production performance rather than interrupt it.

DESIGNING INSPECTION AROUND REAL PRODUCT BEHAVIOR

Metal detection performance is often discussed in terms of sensitivity, but Preston argued that processors increasingly expect systems to deal with more complex realities than laboratory conditions.



According to him, one of the key development priorities behind Mettler-Toledo's latest systems has been improving detection consistency across products that behave differently as conditions change during production. "One of the things we've done is really listen to what customers wanted. Customers have always been interested in improving detection, so we brought out the M56. Compared with our previous

model, the Profile Advantage, it offers better detection on wet products, dry products and frozen products. It's more of an all-rounder. If the application is specifically dry products, then we have the M55, which includes eDrive Plus to provide a stronger signal and stronger field for better detection on dry products." For potato processors, frozen products create particularly challenging inspection

environments because product characteristics are not necessarily stable throughout production. Preston explained that products entering inspection at deep-frozen temperatures may behave differently as they move through the line. "On the M56, we use our 3S Plus algorithm. When products are at minus 18 degrees they behave more like dry products. But with products like potato chips or fries, when they stop or begin to thaw, they start behaving more like wet products because conductivity changes. The M56 uses multi-simultaneous frequency, meaning it runs two frequencies at the same time." He used a comparison intended to illustrate the principle behind managing product effect. "It's similar to noise-cancelling headphones. In a quiet room, any headphones work fine. But when background noise increases, the system has to separate useful information from unwanted interference. In our case, we cancel out the product effect to get a better signal." That shift - from simply increasing detection power toward managing changing product conditions - appeared repeatedly throughout the discussion.

THROUGHPUT IS IMPORTANT, BUT REJECTION STRATEGY MATTERS MORE

Line speed remains an obvious concern for processors, particularly in high-volume environments. However, Preston suggested that speed itself is often not the limiting factor. Instead, reject precision and reject management increasingly become operational priorities. "For frozen products, speed is generally less of an issue than in confectionery. Detection itself usually isn't the problem unless you're running above around 110 or 120 metres per minute, which is rare. The bigger issue is rejection. You don't want to reject more product than necessary." That conversation moved quickly into rework practices and the economic implications of reject decisions. "Some customers may reject several products together depending on the

reject setup, but increasingly customers are looking at rework, where rejected products can be brought back to the front of the line. Rejection is important, and we have many different rejection options. We're also looking at conveyor systems that can reject product and then rework it as well." For potato processors handling frozen fries, chips, flakes, or other value-added products, unnecessary rejection represents both direct material loss and downstream efficiency loss. Preston was cautious about reducing false reject performance to a single metric. "There's no single answer. If a product is calibrated at minus 18 degrees, you may get no false rejects. But as it begins to thaw, conductivity changes and false rejects can increase. That's why you need to build variance into the system. Using multi-simultaneous frequency and the 3S Plus algorithm, we remove much of that product effect and improve false reject rates. Correctly set up, false rejection rates should be close to zero." The discussion suggested that inspection increasingly depends on understanding process variability rather than relying solely on equipment capability.

INSPECTION SYSTEMS BECOME DATA SYSTEMS

Digitalization formed another major topic. Preston described changing expectations not only from operations teams but increasingly from IT and compliance departments. "One of the big things now is digitalization and compliance. A lot of IT departments are moving away from USB reporting. So instead of using USB, users can log in, access history, download reports and send them directly to storage directories, ProdX - our data capture system - or directly through OPC UA or OPC into MES or ERP systems." User access and traceability requirements are evolving alongside reporting. "We've included features such as RFID because many companies are moving away from simply typing passwords in. With RFID cards, access can be controlled according to authorization level - operator, supervisor, engineer, or administrator." Maintenance

workflows are evolving as well. "Downtime is so important that we redesigned alarm management. The machine can generate a QR code that sends information directly to our service department. That effectively opens a service ticket immediately so support already knows what the problem is before responding. If an engineer is required, they arrive already knowing what parts are needed and what alarm occurred." The approach reflects a broader industry move toward reducing troubleshooting time and improving maintenance predictability.

LOOKING BEYOND CONTAMINATION DETECTION

The second conversation shifted from metal detection toward X-ray inspection and AI-enabled applications. Green described AI not as a replacement for inspection systems but as an additional layer intended to improve decision quality. "AI is very much about enhancing inspection capability. Because of EU AI laws, we have to take security implications very seriously. What it allows us to do is enhance levels of inspection, reduce false reject rates, and increase overall equipment effectiveness by reducing disruption." He stressed that the technology is currently being applied selectively. "It supplements existing inspection tools. It captures images and works mainly around completeness checks rather than contamination itself. If you've got five pieces in a pack, it can verify completeness - even if those pieces are scattered and not always in exactly the same position." Green also dismissed the idea that AI necessarily changes hardware economics. "The way we've designed it is as a software feature. It becomes additive to our existing contamination inspection portfolio. We don't believe it changes manufacturing cost. It's there to supplement existing tools and deliver more benefit to customers."

PRECISION REJECTION AND YIELD PROTECTION

Green also introduced the X53 bulk-flow X-ray system, which was presented as one of the company's

launches at interpack. The system is designed around bulk applications and combines premium X-ray capability with dual-energy inspection. "It has the ability to deliver five tons per hour of throughput." During the demonstration, Green emphasized not only detection but the handling of detected material. "The product is leveled out across the belt, moves through the detection zone, and then the major innovation is really in the rejection system." According to Green, two reject approaches are available. "One is an air blast reject, which is very accurate and very sensitive. The other is a flat reject, which is effective but creates a little more product loss because it's less precise." The reject philosophy again returned to yield preservation. "The air blast reject uses very specific lanes, so when contamination is detected, it removes a very small cluster of material rather than a larger group. That improves material yield and reduces losses, which in turn drives up overall equipment effectiveness." Green also highlighted design decisions intended to support production practicality. "It also includes hygienic design features. The belt can be removed by a single operator, so again it's very customer-focused and efficient. We're always focused on enhancing uptime, quality and cycle time."

AI'S INITIAL ROLE: PRODUCT QUALITY

One of the more interesting discussions moved beyond contamination entirely and into product quality control. Green described examples that focused on verifying product composition rather than simply identifying foreign bodies. "Brand protection has two sides: product safety and product quality. Because of current EU limitations, our AI development is initially more focused on quality." He described a demonstration scenario built around meal component verification. "One common complaint is not enough protein. A checkweigher may miss that because if one piece is



missing but there's extra material elsewhere, the weight could still be correct. What AI allows us to do is count the actual number of pieces." According to Green, that capability changes the outcome from simple rejection toward process correction. "If the product falls below that threshold, there's complaint risk. If it exceeds it, there may be giveaway. That creates value through better quality assurance, reduced complaints and potential rework." The concept was extended further. "AI can inspect multiple things at once. Traditional systems had limitations with overlapping products or presentation variation. AI improves shape recognition, allows more accurate differentiation and can inspect multiple parameters simultaneously. That means products can be reworked instead

of destroyed, improving productivity and monetary return." For processors evaluating new inspection investments, Green suggested implementation decisions would remain application-specific. "It doesn't automatically mean buying a new machine. AI can work with existing equipment, but there may need to be development work based on the specific application. It's not always a straight plug-in." As the conversation concluded, both interviews pointed toward the same direction: inspection systems are increasingly expected to contribute to operational performance, yield preservation, process visibility, and product consistency - moving further away from their traditional role as isolated end-of-line control points. •



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PMTV In Tasmania: A Disease Management Case Study One Year On

Potato mop-top virus (PMTV) had never been confirmed in Australia before July 2025. Within weeks of the first detection in Tasmania, movement restrictions had been introduced, seed programmes were under review, interstate trade conditions had changed and authorities were evaluating whether eradication remained possible. By September, Australia formally shifted from eradication to management.

By Tudor Vintiloiu



For the potato sector, the Tasmanian event was not important because of the biological novelty of PMTV itself. Internationally, the disease is well known and has long been recognized as difficult to eliminate once established. The significance of the case lies elsewhere: Tasmania became a real-world test of how a modern potato supply chain responds when disease pressure intersects with seed systems, interstate trade, processing continuity and market access. The result was a compressed lesson in surveillance, traceability and decision-making under uncertainty.

DETECTION EXPANDED FASTER THAN CONTAINMENT ASSUMPTIONS

According to Biosecurity Tasmania, PMTV was first confirmed in July 2025 after diseased potatoes from north-west Tasmania were tested and returned positive results. Authorities immediately activated an incident response, established movement controls and began tracing activity designed to determine whether infected material had moved beyond the original location. Restrictions applied to potatoes, associated materials and equipment while

testing and surveillance expanded. Initially, the response followed the normal logic of emergency plant pest management: identify infected premises, trace movements and determine whether eradication remained achievable. That assumption became increasingly difficult to sustain as additional detections emerged. Through August, Biosecurity Tasmania confirmed more affected sites in northern and north-western Tasmania, including detections associated with seed potato production. By September, official reporting referred to nine known affected sites linked to the response. The detail that most changed the industry's understanding of the event was not the site count itself but the traceback findings. Biosecurity Tasmania reported that early tracing suggested PMTV may already have been present in Tasmania for at least two years before formal confirmation. That did not mean authorities had failed to act; it meant the biological and commercial characteristics of the disease had allowed it to remain undetected long enough that historical movement became as important as current containment. At that point, the response challenge changed. Disease management was no longer centered on identifying one infected field. It became an exercise in reconstructing historical pathways involving seed, soil, machinery and crop movement while preserving the ability of the industry to continue operating.

THE ERADICATION DECISION MARKED THE REAL TURNING POINT

On 19 September 2025, Australia's National Management Group announced that eradication of PMTV was not technically feasible. The official reasoning cited difficulty identifying all infected areas, the ability of the pathogen to remain undetected in soil, the widespread presence of the powdery scab organism that vectors PMTV, and the possibility of movement through seed potatoes, tubers and soil. That decision should not be interpreted as a failure of the response. In practice, emergency

eradication programmes depend on confidence that infected material can be identified and removed faster than it spreads. Once tracing suggests historical distribution across more than one production cycle, eradication becomes progressively less realistic regardless of response intensity. The Tasmanian case demonstrates an uncomfortable reality for potato disease management: the period during which eradication is viable may end before the first official diagnosis is made. Once that happens, the objective changes from removal to controlled operation. Tasmania's transition into long-term management reflected this logic. Rather than extending emergency measures indefinitely, authorities moved toward maintaining commercial continuity while reducing future redistribution risk. That decision transferred more responsibility onto industry systems themselves, particularly around seed governance, movement controls and surveillance.

SEED SYSTEMS BECAME THE MOST SENSITIVE PART OF THE RESPONSE

Seed potatoes quickly became the center of the response because seed movement represents one of the most efficient mechanisms through which risk can be redistributed across production regions. Biosecurity Tasmania prioritized testing of certified seed lines ahead of planting decisions. Government communications later stated that extensive testing had been undertaken to support confidence in planting programmes. The economic implications became visible almost immediately. ABC reported in September 2025 that approximately 1,700 tonnes of seed potatoes would be destroyed as part of the management effort. Regardless of final adjusted volumes, the significance was clear: substantial quantities of commercial planting material were removed from circulation at a critical point in the production cycle. The interstate dimension reinforced the importance of seed governance. According to AUSVEG, one Tasmanian

seed line received in Victoria before restrictions took effect later tested positive for PMTV. The seed was not planted and was destroyed under biosecurity orders. AUSVEG subsequently stated that mainland states remained free of PMTV. From a management perspective, this was one of the strongest outcomes of the response. Positive seed was identified before entering production. At the same time, the event exposed how dependent modern potato systems have become on rapid diagnostics, line-level traceability and clear movement rules. Seed certification is often discussed as a quality programme. Tasmania demonstrated that under disease pressure it functions as business continuity infrastructure.

INTERSTATE RESTRICTIONS PROTECTED STATUS BUT CREATED FRICTION

Once eradication prospects weakened, mainland jurisdictions moved to protect their own production systems. Victoria introduced new import conditions from 1 September 2025 affecting Tasmanian seed potatoes, potato plants, ware and processing potatoes, soil and agricultural equipment. Processed potato products remained outside those restrictions. Movement of ware and processing potatoes remained possible under specified conditions including origin requirements, cleaning expectations and inspection controls. Other jurisdictions implemented their own conditions and restrictions. These decisions were commercially disruptive but technically predictable. Once a region loses confidence in disease freedom, trading partners and neighboring jurisdictions become more conservative. The challenge for industry was not the existence of restrictions but the speed with which movement frameworks had to evolve. Potato supply chains are highly interconnected. Seed, ware and processing volumes move according to production requirements and commercial agreements rather than administrative boundaries. As restrictions expanded, industry



increasingly focused on achieving consistency across jurisdictions. AUSVEG responded by coordinating discussions between government and industry and supporting more aligned approaches to testing, surveillance and movement conditions. One recurring theme was stronger national alignment around seed certification and movement governance. The lesson from Tasmania is not that restrictions were excessive. It is that movement frameworks become significantly easier to implement when principles have been agreed before an incident occurs.

COMPENSATION HIGHLIGHTED A DIFFERENT CATEGORY OF RISK

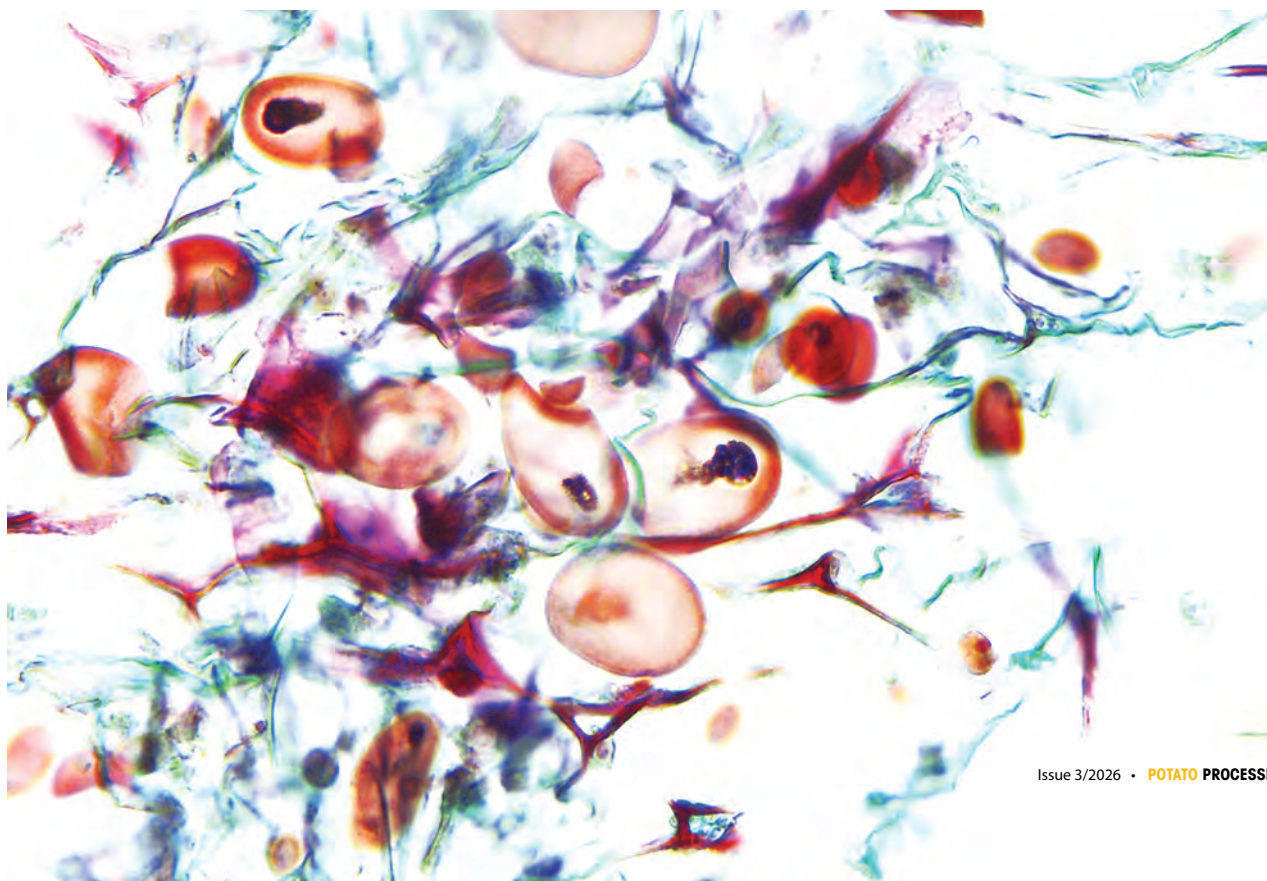
The compensation process exposed another issue that disease management frameworks do not always address well. In March 2026, AUSVEG announced compensation arrangements for levy-paying mainland growers who had purchased Tasmanian seed later affected by PMTV-related restrictions. Eligible categories focused on direct costs including seed, destruction and specified storage expenses. The arrangement was significant because it demonstrated that compensation mechanisms could operate even without a formal national Response Plan. At the same time, the

structure highlighted a limitation common to agricultural disease responses: biological losses and commercial losses are not identical. Destroyed seed is measurable. Delayed planting windows, sourcing alternatives, contract changes and disrupted production schedules are more difficult to quantify but can influence business outcomes just as strongly. Tasmania suggests that future preparedness frameworks may benefit from clarifying compensation logic before incidents occur rather than developing arrangements after movement restrictions are already affecting operations.

THE MAIN LESSON WAS NOT ABOUT THE VIRUS

The strongest conclusion from the Tasmanian PMTV event is not that Australia encountered a difficult pathogen. International experience had already established that PMTV presents management challenges once established. The more important lesson is that disease response capability increasingly

determines commercial resilience. The Tasmanian case showed the importance of rapid diagnostics, historical traceability, seed governance, coordinated movement rules and clear communication between jurisdictions. It also showed that disease events no longer remain confined to agronomy. They quickly become questions of logistics, qualification, planting flexibility and market access. For processors, the issue becomes maintaining predictable raw material supply. For growers, it becomes protecting production options and preserving movement rights. For regulators, it becomes reducing risk without unnecessarily interrupting commercial function. Tasmania's experience demonstrated that once disease pressure intersects with modern supply chains, the objective is not simply controlling the pathogen. The objective becomes preserving the ability of the industry to continue operating while managing the consequences. ●



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Expert View

Automation - Ensuring a Reliable and Flexible Production Flow
Optical Sorting - Increasing Yields, Reducing Waste

Spotlight

Smart Production/IIoT/Industry 4.0

Markets

North America

Products

Specialty Potato Products: Catering to Gourmet and Niche Markets

Ingredients

Better for you/Clean Label

Storage Special

Automated Climate Control
Sensors and Data Gathering

Trade shows: Interpack, 07-13 May 2026

3 MAY/JUNE

Ad closing 20.05/Publishing 03.06



SNACKEX SPECIAL EDITION

Key Exhibitors Road Map and Event Agenda

Processes

Efficient Freezing Technology
Starch and By-products Processing

Expert View

Complete Lines for Processing, Cutting and Hydrocutting
Batch vs. Continuous Frying

Spotlight

Food Safety

Markets

APAC/ANZAC

Products

Chips and Crisps: Meeting Consumer Cravings with New Flavors & Formats

Ingredients

Frying Oils

Storage Special

Power Saving and Sustainability
Disease Management

Trade shows: Snackex, 17-18 June 2026

4 JULY/AUGUST

Ad closing 12.08/Publishing 26.08



POTATO EUROPE SPECIAL EDITION

Key Exhibitors Road Map and Event Agenda

Processes

Conveying Systems and Belts
Seasoning & Coating

Expert View

Drying Technology Advancements
Remote Maintenance and Customer Service

Spotlight

Supply Chain Management & Logistics

Markets

South America

Products

Potato Flakes: The Unsung Hero of Convenience Foods

Ingredients

Seasonings for Chips and Fries

Storage Special

Storage Challenges and Cost-saving Solutions
Handling Potatoes to & from Storage

Trade shows: PotatoEurope, 09-10 September 2026

5 SEPTEMBER/OCTOBER

Ad closing 16.10/Publishing 23.10



INTERPOM SPECIAL EDITION

Key Exhibitors Road Map and Event Agenda

Processes

Blanching, Frying
PEF Systems

Expert View

IQF Freezing for French Fries
Pulsed Electric Field (PEF) Processing

Spotlight

The Road to Sustainability

Markets

Western Europe

Products

Frozen French Fries: The Everlasting Favorite in Foodservice & Retail

Ingredients

Batters/Coatings

Storage Special

Storage Design and Construction
Potato Monitoring & Quality Assurance

Trade shows: Interpom, 29 November - 01 December 2026

6 NOVEMBER/DECEMBER

Ad closing 11.11/Publishing 25.11

Processes

Oil Filtration Systems & De-fattening
Turnkey Projects
Waste Management/Upscaling

Expert View

Sustainability in Production
Conveying And Product Transport

Spotlight

Increasing Production Capacity
Future-proofing Processing Operation

Markets

Global Market Predictions for 2027

Products

Extruded Potato Snacks: Shaping the Future of Healthy Snacking

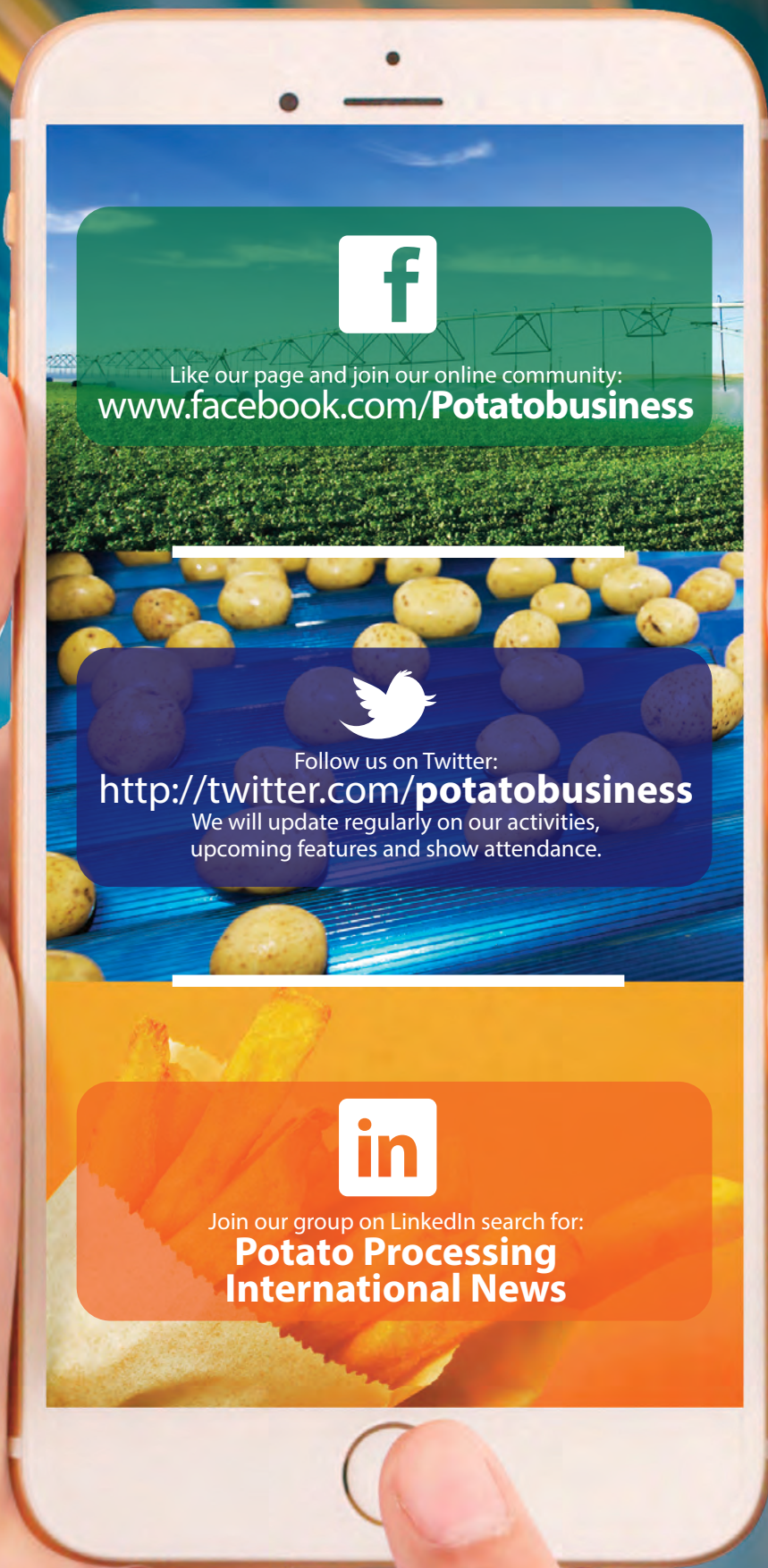
Ingredients

Stabilizers/Functional additives

Storage Special

Store Preparation and Hygiene
Bulk vs. Boxed Storage

Trade shows: Preview of 2027 Event Calendar



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