

food MARKETING & TECHNOLOGY

इंडिया

EXPLORING Bakery TRENDS and INNOVATIONS



FOOD SAFETY

12

Quality and Food Safety Concerns in Bakery Industry

INGREDIENT

16

Fortification of Bakery Products with Vitamins and Minerals

INDUSTRY SPEAK

34

Interview: K P Noorudheen - Founder & Managing Director and Fathima Fasmina - Executive Director at Chefouse

Our cones make
everything better



HYDERABAD | BANGALORE | AHMEDABAD

BIG DRUM
INDIA Pvt. Ltd.

Sales & Corporate Office

Plot No. 10, IDA Uppal, Ramanthapur Main Road,
Hyderabad 500 039, Telangana, India.

Tel.: +91 40 2720 5293/ 94

info@bigdrumindia.com

www.bigdrumindia.com

Contact us today, for your free sample

monte

Ice Cream Bulk / Party Pack / Paper Carton Filling Machine - Model IC 1500 PS

- Fills 1500 bulk / carton per hour
- Can fill from 700 ml, 1 litre, 1.5 litres, 2 litres, up to 5 litres



We feel appreciated when national and global brand leaders select us to develop sophisticated filling machines for their food products.

Successfully developed for 



PWS ENGINEERS PRIVATE LIMITED




Celebrating 113th Year
1913-2026



D&B for D-U-N-S
No : 91-844-4055
Dt. May 26, 2012

 Panchal Estate, Nr. Madhubhan Resort,
Anand - Sojitra Road, Anand 388 001 (Gujarat), India.

 02692 - 261424 / 261716
261849 / 261948

 pws@pwsengineers.com

 www.pwsengineers.com



The January Edition of *Food Marketing & Technology* is the Baker's Technology Special Edition, spotlighting the evolving science, innovation, and operational excellence shaping India's bakery sector. As one of the fastest-growing segments within the food processing industry, bakery continues to witness a dynamic blend of tradition and technology. This special edition brings together insights on ingredients, processing solutions, automation, food safety, packaging, and emerging consumer trends that are redefining how baked products are developed, scaled, and delivered. We hope this issue serves as a valuable knowledge resource for bakers, manufacturers, technologists, and solution providers navigating the future of bakery in India.

India's bakery industry is among the largest segments of the country's food processing sector, driven by increasing urbanisation, rising disposable incomes, and changing consumption patterns. Once dominated by bread and biscuits, the industry has diversified significantly, encompassing cakes, pastries, cookies, rusk, artisanal breads, and premium baked offerings.

Technology adoption is becoming central to bakery operations. Automation, energy-efficient ovens, precision mixing, fermentation control, and digital quality monitoring are increasingly being used to improve consistency, scalability, and food safety while reducing operational costs.

The influence of global baking trends is also evident across the Indian market. Concepts such as sourdough, croissants, frozen bakery products, and ready-to-bake solutions are finding growing acceptance, particularly in urban and institutional segments such as QSRs, cafés, hotels, and cloud kitchens.

Packaging and shelf-life extension have emerged as critical focus areas, especially with the growth of modern retail and e-commerce. Innovations in packaging materials, modified atmosphere packaging, and clean-label preservatives are helping brands expand reach without compromising quality.

Overall, the Indian bakery industry stands at a transformative juncture—where tradition meets technology, and scale meets specialization—creating vast opportunities for innovation, collaboration, and sustainable growth across the value chain.

Innovative Packaging of Bakery Products

Sometimes a technical innovation comes along and everyone stops and thinks "Wow". A completely new system has now been developed that redefines the traditional cooling process for bakery products. These products can now be packed immediately after baking without a long cooling phase. The process also increases freshness and extends shelf life. For its innovative solution, the company Multivac was awarded the German Packaging Award.

The system is designed to integrate the cooling process into a fully automated packaging line that takes up less space and minimizes staff requirements. "Conventional cooling processes for bakery products are usually carried out via cooling coils at ambient temperature or in a separate cooling tunnel. Both approaches take up a lot of space in production facilities and involve high investment costs," explains Thomas Fickler, product manager for thermoforming packaging machines.

Thanks to the reduced baking time, the ovens can produce more bakery products without compromising quality. The vacuum packaging immediately after baking ensures greater freshness and an extended shelf life for the baked goods – details that optimize the entire production process. The risk of product contamination during the cooling process is also minimized.

The baked goods can be taken from the oven and placed straight into the packaging machine's open packaging cavities. This can also be done automatically using loading robots. Through vacuumizing in the packaging machine's compartments, the baked goods are cooled from 95°C to approximately 30°C within a few seconds.

The vacuum application technology with the cooling process can also be used outside the baking industry, although the system is particularly suitable for industrial bakeries, especially for part-baked products such as baguettes, bread rolls and pretzel sticks where baking is finished off in store or at home. The focus is other applications in the food industry, where products need to be cooled before packing.

This and other innovations will be featured at the world's largest packaging show, Interpack in Dusseldorf, Germany in May this year.

Linda Brady Hawke

Benno Keller
keller@harnisch.com

Ian D. Healey
healey@harnisch.com



Hygienic flow meter with IO-Link Completes the food digitalisation portfolio

Eliminate blind spots in your digital process!

Equipped with IO-Link, the newly released **SM Foodmag magnetic-inductive flow sensor** from ifm takes the flow measurement of liquid and creamy foods to a new level. It is the first of its kind to enable digital data transmission from the process, removing the last blind spot from the F&B production process.

Key benefits and features

- **Efficient:** Provides flow rate, total volume, temperature and conductivity.
- **Hygienic:** Rated with IP67 and IP69K.
- **Accurate:** Error-free connection to data infrastructure.
- **Robust:** Has undergone rigorous pressure, shock, temperature and condensation testing.
- **Easy set-up:** App-based menu and guided installation.
- **Expert support:** Our team of experienced F&B product engineers will ensure you get the maximum benefit from this digital solution.

Need help with digitalisation?

Let us assist. We draw on a wealth of global expertise to provide you with the best local support.

ifm electronic India Private Limited

Plot No. P-39/1 MIDC Gokul Shirgaon Kolhapur 416234

+91 231 2372770 | info.india@ifm.com | www.ifm.com/in



Contents

January 2026

8 News



Food Safety

12 Quality and Food Safety Concerns in Bakery Industry

16 Fortification of Bakery Products with Vitamins and Minerals

18 Cranberries: Small Fruit with Superpowers

23 Macambo: The Cocoa Bean that Tastes like a Nut

Ingredient



Processing

26 Sugar Replacers in Bakery Products and Their Processing Effects

28 2025 Sees Growth for Australian Technology Manufacturer Flavourtech

Packaging

31 Intelligent Packaging Solutions for the Bakery Industry

Industry Speak

34 Interview: K P Noorudheen - Founder & Managing Director and Fathima Fasmina - Executive Director at Chefouse



Industry Insight

38 Shifting Sip Preferences: From Colour Appeal to Functional Wellness in the Beverage Market

42 Outlook on Spices for 2026

Event

44 A Triumph Beyond Words! India's Mithai & Namkeen Industry Took Center Stage at WMNC 2025, Delhi

46 Supplier's List

49 Upcoming Events

SEW MOBILE MATERIAL-HANDLING


Inspired by Nature, Engineered for Efficiency

At SEW-EURODRIVE, we're inspired by the remarkable engineering in nature and strive to bring the same smart design and efficiency to our products.

Just as expert navigation is in leafcutter ants' DNA, our Mobile Material-Handling solutions synchronise your material flow seamlessly across dynamic factory systems, following optimised paths.

Our Industry 4.0 solutions – Automated Guided Vehicles (AGVs) and Electrified Monorail System (EMS) – are fully customisable and built to German standards. And with expert support across India, we ensure smooth material-handling.

Efficiency: It's in our D.N.A.



Leafcutter ants are nature's expert transporters. These tiny powerhouses carry leaf fragments many times their weight. They navigate obstacles across tough terrains without set routes yet ensure smooth cargo movement.



SEW-EURODRIVE MOBILE MATERIAL-HANDLING SOLUTIONS:

Automated Guided Vehicles (AGVs) | Rail Guided Vehicles (RGVs)
Electrified Monorail System (EMS) | Power Management

+91 96866 24322 | marketing@seweurodriveindia.com
www.seweurodriveindia.com



Marico Limited's Robust Performance for the Third Quarter of FY26

Consumer products firm Marico Limited has posted a robust performance for the third quarter of FY26, with its consolidated revenue growth on a year-on-year basis standing in the high twenties percent, reflecting resilient demand across key markets and improved consumption trends.

According to the company's quarterly business update, subdued inflationary pressures and recent tax rationalisations including lower GST rates have bolstered affordability and supported overall sales, particularly in India's rural and semi-urban markets where discretionary spending has begun to recover.

Marico's underlying volume growth in the India business remained in the high single digits, showing a slight improvement on a sequential basis as urban demand stabilised alongside steady rural consumption. The company's flagship hair care brand Parachute continued to display resilience, with volume normalisation after packaging adjustments helping maintain consumer traction despite elevated input costs. Meanwhile, value-added hair oils delivered strong performance with growth in the twenties, underscoring positive reception in this high-margin segment.

Government of India has released a comprehensive year-end review of the Animal Husbandry and Dairy Department for 2025



The Government of India has released a comprehensive year-end review of the Animal Husbandry and Dairy Department for 2025, showcasing the sector's robust growth and strategic measures to enhance productivity, breed improvement and rural livelihoods. The review, tabled by the Ministry of Fisheries, Animal Husbandry & Dairying, underlines how livestock and dairy remain pivotal contributors to India's agricultural economy.

According to the data, the livestock sector has maintained a strong compound annual growth rate (CAGR) of 12.77% since 2014-15, with its share in the agriculture and allied Gross Value Added (GVA) rising steadily. Notably, livestock contributed over 5.4% of total GVA in 2023-24, reflecting sustained momentum across segments such as milk, meat and allied animal products.

India's dominance in global milk production was another highlight of the review. With an impressive trajectory, the nation now accounts for about 25% of world milk output, rising from 146.31 million tonnes in 2014-15 to 247.87 million tonnes in 2024-25 — marking a strong 11-year growth spurt.

The year also witnessed significant initiatives to uplift indigenous breeds and strengthen genetics. A Regional Centre of Excellence (CoE) for Indigenous Breeds was inaugurated in Motihari, Bihar, with an investment of Rs 33.80 crore, reinforcing breed conservation and scientific improvement efforts.

To further enhance dairy farm economics, more than 45.60 lakh fresh Kisan Credit Cards (KCCs) were sanctioned to dairy farmers affiliated with milk cooperatives and producer companies, expanding access to credit for working capital and farm inputs.

Additional milestones included broader outreach through Mobile Veterinary Units (MVUs) providing free animal health services and the expansion of veterinary colleges to strengthen grassroots veterinary infrastructure nationwide.

The 2025 review underscores the government's emphasis on sustainable growth, scientific breeding and credit support systems, aimed at reinforcing India's position as a global leader in livestock and dairy while uplifting rural economies.

Nestle Has Initiated Recall of Some Batches of Its Infant Nutrition Product Including SMA, BEBA and NAN formulas

Nestle has initiated recall of some batches of its infant nutrition product including SMA, BEBA and NAN formulas following detection of a quality issue in Europe.

As per reports, the recall began on a smaller scale in December and spread at many locations across Europe.

The company has issued a statement on Jan 5 that Nestle is voluntarily recalling specific batches of its SMA infant formula and follow-on formula.

"This is due to potential presence of cereulide in the batches concerned," reads the statement of Nestle UK.

The statement added, "There have been no confirmed reports of any illness associated with consumption of the products concerned. Nevertheless, out of an abundance of caution, Nestlé has decided to perform this voluntary product recall in line with our strict product quality and safety protocols."

Further, as per an advisory issued by Nestle, cereulide is a substance of bacterial origin that causes foodborne illness and is created by certain strains of the microorganism, *Bacillus cereus*. The presence of cereulide in oils is very uncommon, and Nestlé is working with the oil supplier, who is conducting a full root-cause analysis.

SUPERIOR EXTRUSION SYSTEMS FOR TEXTURED PLANT-BASED PROTEINS

With Wenger, you make plant-based products that your customers love to eat.

Whether you're a start-up firm that is commercializing a new product, or an established processor looking to expand your portfolio, our world-class team helps you develop textured proteins and the processes to produce them at scale. No one has more expertise with dry and wet extruded texturization than Wenger.

Let's work together.
Contact us at info@wenger.com.



 **WENGER®**

Wenger.com

CSIR-Central Food Technological Research Institute (CSIR-CFTRI), Mysuru, is now Increasingly Focusing on Strengthening Skilled Workforce for Food Security and Safety

CSIR-Central Food Technological Research Institute (CSIR-CFTRI), Mysuru, is now increasingly focusing on strengthening skilled workforce for food security and safety. At the recently concluded valedictory function of the 44th batch of the International School of Milling Technology (ISMT) objective was to create a pool of professionals in the sector.

Dr. Shylaja Donempudi, Distinguished Scientist and Head of the Business Development Group, CSIR Headquarters, New Delhi, attended the ceremony as the Chief Guest and in her valedictory address highlighted the essential role of skilled milling professionals in maintaining food quality and



ensuring nutritional security throughout the nation.

This was part of the Platinum Jubilee series where Dr. Shylaja Donempudi deliberated on the theme 'Science to Supremacy: Reimagining Food Innovation for Global Markets.'

Dr. Suresh D. Sakhare, Senior Principal Scientist & Head, FMBCT (Flour

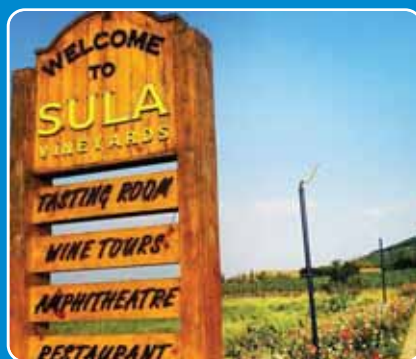
Milling, Baking, and Confectionery Technology), CSIR-CFTRI said that ISMT established in 1981 as an Indo-Swiss collaborative initiative, has evolved into a premier training center in South Asia for professional millers. The institute houses a fully automated 22-ton-per-day pilot roller flour mill, providing industry-oriented practical training in wheat cleaning, milling operations, flour fortification, and quality evaluation.

To date, nearly 900 professionals, including 120 international trainees from Africa, the Gulf region, and Southeast Asia, have been trained at ISMT. A major share of flour mills in India and several countries abroad are currently operated by ISMT-trained millers, demonstrating the institute's global impact.

Sula Vineyards, India's Most Awarded Wine Producer, has Launched the Source Chardonnay Reserve

Marking the beginning of the new year with a refined addition to its premium portfolio, Sula Vineyards, India's most awarded wine producer, has launched The Source Chardonnay Reserve. The latest offering under The Source label reflects Sula's continued focus on terroir-driven winemaking and elevated wine experiences.

Crafted from select high-quality vineyards and carefully oak-fermented, The Source Chardonnay Reserve is a dry white wine that brings together depth, elegance, and freshness. With a medium-bodied profile and 13% ABV, the wine opens with inviting honeyed



aromas and unfolds into gentle vanilla notes on the palate. The oak fermentation lends smoothness and layered complexity, while the natural acidity ensures balance and vibrancy, making it both expressive and approachable.

Designed for discerning wine lovers and special occasions, The Source Chardonnay Reserve pairs well with a range of gourmet dishes. It complements creamy pastas, grilled seafood, roast chicken, and artisanal cheeses, making it a versatile choice for refined dining experiences. The launch further strengthens The Source portfolio, which has steadily gained popularity among enthusiasts for its uncompromising quality and distinct vineyard expressions. Following the success of six notable wines, including the widely appreciated Pinot Noir, the addition of the Chardonnay Reserve marks another thoughtful expansion of the range.



Extraordinary performance.

Just like our wide range of customizable geared motors.



Series M -
Helical Inline
Geared Motor



Series C -
Right Angled Heli-worm
Geared Motor



Series F -
Parallel Shaft Mounted
Geared Motor



Series K -
Right Angle Helical
Bevel Geared Motor



PN Series -
Planetary Series
Gearbox

GEARED MOTORS | GEAR BOXES | CUSTOMIZED GEARS | DRIVE SOLUTIONS

- Robust design • Modular construction • User-friendly interface • Quick installation
- Economical operation • Easy maintenance



Scan for our
LinkedIn page

Phone: +91-2692-231070, 231120, +91-97277-19344 | **Website:** www.powerbuild.in
CIN: U32201GJ1972PTC002065 | **E-mail:** infopbl@powerbuild.in



Quality and Food Safety Concerns in Bakery Industry

■ By Anurag Mishra*

Indian bakery market is currently between USD 12–14 billion annually. Recent industry estimates place the market around USD 13–14 billion in 2024. Forecasts indicate a compound annual growth rate (CAGR) in the 9–10% range into the next decade, which would take the market beyond USD 27–31 billion by around 2033–2035 if projections hold. Aren't promising numbers?

But at the same time, recent quality and food safety issues in the Indian bakery industry centre around foreign matters, microbiological contamination, allergen mismanagement, labelling and hygiene violations, and substandard ingredients, with several incidents leading to illness, product seizures, or regulatory action. These cases are affecting both small neighbourhood bakeries and large branded players, drawing stronger scrutiny from state food safety departments and FSSAI. Recent issues from states like Punjab, Tamil Nadu, and Karnataka have linked birthday cakes and other bakery items to suspected food poisoning, including cases involving children, prompting shop closures and police cases. Investigations in these incidents typically highlight poor handling of cream cakes, temperature abuse, inadequate hygiene, and the sale of stale or contaminated products as likely contributors. It is not only limited to local bakery shops but also big brands products like cake, cookies etc also have not performed up to the mark from quality and Food Safety POV.

These days Quality and food safety in the bakery industry are



under increasing scrutiny due to evolving consumer expectations, complex supply chains, and stringent regulatory requirements and social media. Bakeries must therefore address a wide spectrum of challenges ranging from raw material variability and microbiological hazards to allergen control, foreign body contamination, labelling accuracy, and shelf-life management.

Overview of bakery quality and safety

The bakery sector covers a diverse range of products: breads, biscuits, cakes, pastries, doughnuts, cookies, snack bars, and cream- or custard-filled items, each with distinct risk profiles. Water activity in bakery products typically ranges from about 0.30 in very dry, crisp items to around 0.95 in fresh, moist products. Fresh

pan bread usually has water activity around 0.90–0.95, which supports softness but also allows mold growth if not controlled by hygiene, preservatives, and packaging. Cakes and batter-type products often fall in the approximate range of 0.80–0.90, balancing moist eating quality with moderate microbiological risk.

Many products are ready-to-eat and consumed without further heating, so any lapse in control during mixing, fermentation, baking, cooling, filling, or distribution can directly translate into consumer exposure and potential foodborne illness. At the same time, competitive markets push bakeries toward higher throughput, automation, and product innovation, which can strain existing quality systems if not carefully managed.

Raw material variability and hazards

Bakery-quality flour, sugar, fats, yeast, eggs, milk, nuts, seeds, chocolate, fruits, and inclusions (e.g.,

choco-chips, fillings) are central to product quality but are also common carriers of microbiological, chemical, and physical hazards. Many Studies have shown that flour, dairy components, cocoa, nuts, and dried fruits can introduce pathogens including Salmonella, Bacillus cereus, Staphylococcus aureus, and Escherichia coli into bakery processes before baking. From a quality standpoint, seasonal variation in wheat, differences in flour extraction rates, and inconsistent functionality of fats and emulsifiers contribute to variation in dough rheology, loaf volume, crumb structure, and eating quality.

Suppliers may also differ in their adherence to GMP (good manufacturing practices), leading to variability in microbiological load, allergen cross-contact, and foreign matter risk. Weak supplier quality assurance and monitoring systems can therefore translate into inconsistent finished product quality and recurrent non-conformities at

incoming inspection. For bakeries, robust vendor qualification, clear specifications (microbiological, chemical, physical, and functional), and periodic audits are critical first barriers for both quality and safety.

Microbiological risks in bakery products

Although baking provides a significant lethality step, not all bakery products are safe by default because recontamination and post-bake handling can reintroduce pathogens. Research on ready-to-eat bakery items, including cream-filled cakes and pastries, has reported contamination with pathogens such as Salmonella spp., Staphylococcus aureus, Bacillus cereus, and coliforms, often attributed to poor handling, inadequate hygiene, or temperature abuse. Creams, custards, milk-based fillings, and whipped toppings are particularly susceptible due to high water activity, rich nutrient composition, and often limited subsequent heat treatment.



Spoilage organisms, including molds and yeasts, also pose significant quality challenges, leading to visible spoilage, off-odors, textural deterioration, and shortened shelf life. For sliced bread and high-moisture bakery products, mold growth is a key limiting factor, influenced by flour quality, water activity, packaging integrity, and hygienic design of cooling and slicing areas. Where environmental control and sanitation are weak, issues like rope spoilage caused by *Bacillus* species can emerge, resulting in unacceptable texture and flavor while also presenting potential safety concerns.

Allergen management and labelling

Bakery environments typically handle multiple allergenic ingredients such as wheat (gluten), eggs, milk, soy, nuts, peanuts, sesame making cross-contact a central challenge. Shared equipment, multi-product lines, and open handling of toppings and inclusions increase the risk that allergen residues transfer to products that are not intended to contain them, potentially leading to severe reactions in sensitive consumers. From a quality system perspective, inadequate cleaning validation, poor segregation, and unclear changeover procedures often sit at the root of allergen-related incidents.

Labelling errors are a major driver of bakery and snack product recalls, frequently due to undeclared allergens, incorrect ingredient lists, or misapplied labels during packaging operations. With frequent recipe changes, promotional packaging, and line speed pressures, the risk of mislabelling increases unless there are strong verification controls, line clearance practices, and electronic checks. Effective allergen management in bakeries therefore demands rigorous risk



assessment, validated cleaning, dedicated utensils and storage where feasible, and robust artwork, label control, and pre-release review processes.

Foreign body contamination and equipment issues

Bakeries face substantial risk from physical contaminants introduced via raw materials or generated within the plant by equipment wear and poor maintenance. Common foreign materials include metal fragments from bearings, screws, or blades; hard plastic pieces; stones or pits from fruits and nuts; shell fragments; and packaging materials. As many bakery lines run for extended periods to maximize throughput, fatigue and wear on conveyors, mixers, depositors, and slicing equipment increase the likelihood of fragments entering the product stream if preventive maintenance is not robust.

Detection and rejection systems such as metal detectors, X-ray units, and vision inspection are now standard

in modern bakeries but are only effective when properly specified, validated, and routinely challenged. Inadequate sensitivity settings, blind spots in product presentation, and lack of documented verification can give a false sense of security, causing foreign body incidents that damage brand reputation and trigger recalls. Additionally, even non-hazardous foreign materials such as burnt particles, old dough residues, or lubricant droplets can cause serious quality complaints and erode consumer trust.



About the authors:

* Anurag Mishra

Quality and Food Safety Professional,
can be reached out at
anurag.ft@gmail.com

Turn Food Ideas into Scalable Products



Our expertise includes

- R&D and Product development
- Shelf-life & process optimisation
- Cost & ingredient optimisation
- Pilot trials & commercial scaling
- Manufacturing & plant setup support

Build food products that are ready for the real market



+91 72766 02933
+91 89991 99418



info@foodmonkconsultant.com



foodmonkconsultant.com

Be Informed. Stay Relevant.

Get **FMT Magazine** –
the ultimate guide
to the food and
beverage sector.

**SUBSCRIBE
TODAY!**



www.fmtmagazine.in | info@fmtmagazine.in | +91-9310352414

Fortification of Bakery Products with Vitamins and Minerals

■ By Dr. Ruchi Verma*

Bakery products such as bread, biscuits, and cakes are widely consumed across all age groups. Due to their regular consumption, they are ideal vehicles for nutrient fortification. Fortification of bakery products involves the addition of essential vitamins and minerals to improve their nutritional value and help reduce micronutrient deficiencies in the population.

1. Need for Fortification in Bakery Products

Many people suffer from deficiencies of vitamins and minerals such as iron, calcium, folic acid, and vitamin D. Bakery products prepared from refined flour often lack these nutrients due to losses during milling and processing. Fortification helps restore lost nutrients and improves the nutritional quality of commonly consumed bakery foods.



2. Common Vitamins Used in Bakery Fortification

Vitamins commonly added to bakery products include B-complex vitamins such as thiamine, riboflavin, niacin, and folic acid. Vitamin D is added to enhance calcium absorption, while vitamin A is used in some products to improve nutritional value. These vitamins are selected based on their stability during baking and their nutritional importance.

3. Minerals Used in Bakery Fortification

Minerals such as iron, calcium, zinc, and iodine are widely used in bakery

fortification. Iron fortification helps prevent anemia, while calcium supports bone health. Zinc improves immune function. These minerals are added in suitable forms to ensure bioavailability without affecting taste or texture.

4. Methods of Fortification

Fortification is commonly achieved by adding vitamin and mineral premixes to flour during mixing. Uniform distribution is essential to ensure consistent nutrient levels. Encapsulation techniques are sometimes used to protect sensitive vitamins from heat and oxidation during baking.

5. Effect of Fortification on Processing and Quality

Fortification may influence dough rheology, color, and flavor. Iron salts can cause color changes, while excess minerals may affect yeast activity. Proper selection and controlled levels help maintain product quality without negatively impacting texture or taste.

6. Stability of Vitamins and Minerals During Baking

High baking temperatures can cause vitamin losses, especially heat-sensitive vitamins like vitamin C and folic acid. Minerals are generally more stable. Over-fortification is often practiced to compensate for



nutrient loss during processing and storage.

7. Regulatory Aspects

Fortification levels are regulated by food authorities such as FSSAI to ensure safety and effectiveness. Manufacturers must follow prescribed limits and labeling requirements to inform consumers about added nutrients.

8. Conclusion

Fortification of bakery products with vitamins and minerals is an effective strategy to improve public health. With proper formulation, processing control, and regulatory compliance, nutritionally enhanced bakery products can be produced without compromising quality or consumer acceptance.

About the author:

* Dr. Ruchi Verma
Assistant Professor, Department of Food Processing and Technology
Gautam Buddha University, Greater Noida-201312
Corresponding mail Id:
ruchiverma0715@gmail.com

Reliable Ingredient Solutions for Sweets & Namkeens

We Deals in: Food colour (Natural, Synthetic) , Food Flavours (Powder, Liquid, Granules, Caps), Seasoning & Spices , Dyes & Lakes, Preservatives Range, Premix , Improvers, Glucose & Syrups, Sugarfree & Sweeteners, Cocoa & Coconut Ranges, Food Ingredients & Chemicals



ASSOCIATES PARTNERS



JINDAL COCOA



SHRI RAM ASSOCIATES

H.O : Sri Ram House, Beside Ashoka City, Ranipur Bypass, Patna- 9 | Mob : +91 9508206981, 8825384401 | Website: www.srthub.in

Patna Branch : Sindhi Dalan, Khajekalan, Patna City -8, Contact: 06123174555
Email : srthubglobal@gmail.com

Kolkata Branch: Vaishno Chamber, Basement Floor, 6 Brabourne Road, Kolkata -1, Contact: 03345178649
Email : srthub.kol@gmail.com

Cranberries: Small Fruit with Superpowers

■ By Ian Healey*

Ocean Spray Ingredients is part of Ocean Spray Cranberries Inc, a grower-owned cooperative comprising around 700 family farmers across the United States, Canada and Chile. In 1930, Ocean Spray was founded by three bold farmers in Massachusetts—bonded by a single innovative product.

The founders Marcus Urann, John Makepeace, and Elizabeth Lee worked together to create the Jellied Cranberry Sauce before growers from Wisconsin, Washington, and Oregon quickly joined forces. Within a decade, Ocean Spray became the first producer of cranberry juice drinks with products sold on store shelves across the United States. Since then, the company has grown into a vibrant global agricultural cooperative built on the strength of the family farming way of life for nearly 100 years, and for generations

to come. Today, cranberries show up in more than a thousand deliciously nourishing products in over 100 countries worldwide. United by passion and purpose, Ocean Spray is committed to trailblazing the power of the mighty cranberry through its offbeat taste and uncanny nutrition to feed better, happier lives for all.

Cran-tastic

Cranberries have made Ocean Spray one of the most successful brands in the US marketplace. The company also ranks as one of the top 50 US food and beverage companies.

The cranberry is recognized for its appealing bright red appearance, tangy taste and versatility, as well as its association with a growing number of health benefits. In Europe, sales of Ocean Spray branded products and ingredients continue to show exceptional success with



consumers and manufacturers alike, as the cranberry proves its value in a number of ways. In fact, cranberry ingredients can now be found in hundreds of products in over 50 countries around the globe.

A superfood for beverage and food

Ocean Spray Ingredients is a cranberry ingredients solution provider and a product development resource for companies and organizations of all sizes. The



group works as a strategic partner with customers, clients and food technologists to create customized recipes and increase market share through the application of technology.

The phenomenal success and growth of the cranberry can be attributed to Ocean Spray's dedication to helping manufacturers develop creative and highly appealing new product lines. Over sixty years of research and experimentation have culminated in unparalleled knowledge and experience in new product development – from recipe formulation to market and ingredient analysis.

Ocean Spray's patented technologies have been used to create an extensive

portfolio of fruit ingredients, which are available all year round for the beverage, bakery, confectionery, dairy, cereal, snack and nutraceutical industries:

- Cranberry concentrates
- Sweetened dried cranberries
- Frozen cranberries
- Fruit purées
- Cranberry seeds BerryFusions®
- dried fruits

**One ingredient.
Endless possibilities.**

From energizing smoothies to soothing teas, cranberry concentrate brings bold flavor and nutrients to every sip. Whether blended into juices, stirred into cocktails and mocktails or added to functional

shots, it's a smart ingredient that adapts to today's most popular beverage formats and can be part of a daily wellness routine. The strong red color and bold, tart taste bring something special to every beverage.

In juices and beverages, cranberry concentrates and fruit powders are widely used. The versatility of the ingredient gives rise to a broad range of application opportunities. On my recent trip to the Discovery and Tasting Center, Receiving Station and Bogs in Massachusetts, I was privileged to try some of them. Discussions with Research and Culinary experts underline the detailed care taken with every new idea and product. Beverages are always a positive option to demonstrate health and flavor innovations.

CUP FILLING AND SEALING MACHINE



NIHIRA FOOD ENGINEERING LLP
Plot No. 185, Sector No. 07, PCNTDA, Bhosari,
Pune - 411026, Maharashtra, India.
T: + 91 20 66350099 M: + 91 97675 14222
E: santosh@nihira.in, santoshkarale@yahoo.com
W: www.nihira.in

The paramount objective of the cup filling machine is to adeptly handle a wide array of filling options, including single/multi-layered liquids and intricate combinations of two liquids or products with particulates, all while meeting the high production demands with utmost efficiency, precision, and adherence to strict quality standards.



A resource for health & wellness

Early scientific findings on the cranberry related to the prevention of urinary tract infection and inspired a host of further research into gut, oral and heart health. The cranberry is considered a superfruit, and provides nutrients and bioactives including vitamin C, fiber, minerals and polyphenols. Research suggests there are multiple, powerful elements found within cranberries that are linked to a variety of health benefits. Besides helping consumers meet their recommended daily fruit intake, cranberries and certain cranberry beverages may also help support urinary tract, gut, oral, and heart health.

Cranberries are very high in antioxidants per gram, more than any other common fruit, and the unique tannins, A-type proanthocyanidins, have been found to work in many ways to prevent bacteria such as E. coli adhering to body cells and causing infection. The cranberry's huge nutraceutical potential is still largely untapped and future research projects in this exciting field are continually underway.



Photo: Ian Healey enjoys the moment

Other research has cast light on how cranberry proanthocyanidins (PACs) actively disable certain bacteria such as E. coli, preventing them from adhering to cells in the body where they could potentially cause infection. With many bacteria becoming increasingly resistant to commonly prescribed antibiotics, the anti-adhesion properties of the cranberry are emerging as a potentially significant step towards finding a viable means to reduce our dependence on antibiotics by reducing the risk of initial infections.



Sustainable farming

My recent visit to the cranberry bog to experience the harvest was an eye opener. As a cooperative, Ocean Spray is farmer-owned. Neighbors help each other and the work is done efficiently. Sustainability is of utmost importance as the land and the people are central to everything the company stands for.

Ocean Spray's Cooperative Sustainability Strategy offers a holistic, common-sense approach grounded in four pillars: Planet, Product, People, and Prosperity.

CEO Tom Hayes: "Each of these pillars reflect the efforts we will make, and the values that guide us. We will continue to understand and track our greenhouse gas emissions and identify areas of opportunity. We will work to improve our packaging and products portfolio globally. We will maintain a safe and inclusive workplace for our team members. We will develop the next generation of farmer-leaders within our Cooperative. To be sustainable is to be prepared for any

challenges and ensure the longevity of Ocean Spray for the roughly 700 family farmers-owners who are the past, present, and future of this Cooperative. Sustainable practices are an important component of our organizational health over the long-term. It is what our owners, consumers, partners, and team members expect of us."

Wet harvesting is more common in cranberry agriculture production. The process involves flooding the cranberry beds and using innovative machinery to gently knock the berries off the vine. The cranberry's air pockets create buoyancy allowing it to float to the surface of the water and booms are used to round up the floating berries. The berries are then lifted by a conveyor or pumped into a truck to take them to the receiving station for further cleaning and processing.

Water management is vital to all farmer-owners. Together with regenerative cranberry agricultural practices, strategic

water management assists them in increasing the resilience of their farms to mitigate climate related risks. Contrary to popular belief, cranberries do not grow in water. However, freshwater quantity and quality are crucial to cranberry cultivation. Cranberry beds are flooded to facilitate harvest and protect the beds with insulating ice during the winter. As freshwater is a finite resource, farmer-owners solve water resource issues by recycling and reusing water from farm to farm and farmer to farmer. Additionally, cranberry farms have the capacity to store water in the event of a flood. As a result, farmers can help build community resilience by allowing excess rainwater into their bogs during high precipitation events. Water quality is equally critical to cranberry agriculture and the health of the surrounding environment and communities.

Versatile way beyond its size

Ocean Spray leads the world in researching, developing and



supplying new and innovative cranberry based ingredients. The R&D and culinary specialists provide technical and marketing solutions as well as category and consumer trend information to help manufacturers develop new and successful exciting food, beverage and nutraceutical products.

It was a privilege to join this tour with other editor colleagues. Thanks to the excellent care and organization. From my own experience, if you need any convincing about the goodness of cranberries, take a bog tour with the Ocean Spray Ingredients team. This will give you a joy and a healthy feeling, getting you ready to take on anything!

For further information:
www.oceanspray.com/ingredients



Food Monk Innovations: Driving Science-Led Innovation in India's Food Processing Sector

As India's food processing industry evolves toward higher value addition, quality assurance, and regulatory compliance, Food Monk Innovations has emerged as a key enabler for brands navigating this increasingly complex landscape. Founded in 2019 and headquartered in Pune, Maharashtra, the firm supports food entrepreneurs, startups, and established manufacturers across India with end-to-end, science-driven consulting solutions.

Food Monk Innovations is distinguished by its strong technical foundation and hands-on approach. Led by food technocrats and industry professionals, the firm specializes in food research and development, product formulation, shelf-life optimization, and turnkey project execution. Its expertise spans a wide spectrum of food categories, including fruits and vegetable processing, spices and condiments, dairy and milk products, beverages, bakery items, chocolates and confectionery, millet-based products, and ready-to-eat and ready-to-cook foods.

In an environment where product differentiation and safety are critical, Food Monk Innovations goes beyond conventional advisory models. The company adopts a holistic approach that integrates innovation with commercial and regulatory viability. Each engagement begins with a deep evaluation of the client's concept, target market, and scalability potential. Based on this assessment, the team delivers structured support covering raw material selection, formulation development, pilot trials, packaging solutions, shelf-life studies, food safety systems, and statutory compliance.



“

Our goal is to bridge the gap between food ideas and successful market-ready products. By combining scientific rigor with practical industry understanding, we help brands scale with confidence and compliance.

”

BHAGYASHRI MHATRE
FOUNDER, FOOD MONK
INNOVATIONS

A key strength of Food Monk Innovations lies in its in-house laboratory and pilot facilities in Pune. These facilities enable rigorous testing, faster prototyping, and

smoother transitions from concept to commercial production. By minimizing trial-and-error at the manufacturing stage, the firm helps clients reduce time-to-market while maintaining product consistency and quality.

Food Monk Innovations' mission reflects its long-term commitment to India's food ecosystem: to empower more than 1,000 food startups by 2032. As consumer expectations rise and regulatory frameworks become more stringent, the firm continues to play an active role in strengthening the packaged food sector through science-backed innovation.



For further information:
www.foodmonkconsultant.com

Macambo: The Cocoa Bean that Tastes like a Nut

*When shelled and roasted, Macambo resembles a nut. It is not only its appearance that tricks us, but also its flavor profile. Macambo tastes nutty, whether as a salty snack or combined with chocolate. However, the supposed nut is actually the seed of *Theobroma bicolor*, a tree from the cocoa tree family. This relative of cocoa is still relatively unknown by European consumers. But it has strong arguments that could convince the market: its taste, its versatility and its nutritional profile. The Import Promotion Desk (IPD), a project of the German Federal Ministry for Economic Cooperation and Development, has sourced the company*

“Ecodecisión” from Ecuador, which is marketing Macambo under the brand name “Canopy Bridge”. At ISM 2026, the world’s leading trade fair for confectionery and snacks, the IPD will present this special “nut” to European buyers.

Macambo – the sister of cocoa *Theobroma bicolor* is a close relative of the cocoa tree. It grows in the Amazon region and is known in Ecuador as Macambo. The light-colored beans are embedded in the pulp of its fruit, just like in a cocoa fruit. This is why Macambo is also known as “white cocoa”. The beans are removed from the pulp by hand. That is where the similarities with cocoa end. The

beans are simply shelled and lightly roasted before consumption. They can then be eaten raw and are suited as a sweet or savory snack.

Nutty flavor

The bean, which is around three centimeters in size, is prized for its nutty flavor: it is mild but full-bodied and slightly sweet with nutty aromas of cashews, Marcona almonds and



pistachios. “When you try Macambo for the first time, the flavor wins you over”, says Marta Echavarría, managing director of “Ecodecisión”. “And at the same time, you notice that the bean is very filling. That’s because of its high protein content, which I think is Macambo’s biggest advantage.”

Macambo is very versatile. It can be used in desserts, all kinds of baked goods, chocolate, bars, etc. In Ecuador, there are pralines made from ground Macambo beans and a Macambo spread. At the same time, it is a popular savory snack when salted. For example, finely chopped macambo nuts can be sprinkled over salads or soups like croutons. In general, Macambo goes well with savory dishes.



High protein content

Macambo is rich in vegetable proteins. According to Marta Echavarría, the content is higher than in other nuts. It also contains monounsaturated fatty acids and fibre. In addition, Macambo beans contain theobromine, which is also found in cocoa beans, coffee and tea.

It has a stimulating effect, but it is much weaker than caffeine.

High-quality processing

The small farmers with whom “Ecodecisión” works harvest the cocoa pods, remove the beans, peel them by hand and deliver them to the processing plant on the same

day. The beans must be absolutely fresh and must not ferment. This is a major difference from cocoa production. The fresh Macambo bean is then processed whole. It is only lightly roasted so that its flavor and texture can develop. Another method involves drying the beans at low temperatures over a longer period of time. This serves as a basis



for companies that want to do the roasting themselves.

Collaboration with small farmers

The Ecuadorian company works with around 450 indigenous farmers from the Amazon region – 90 per cent of whom are women – who cultivate Macambo trees. The trees also grow wild. Until now, however, there has been no market for the beans. Through their collaboration with “Ecodecisión”, the women now have a partner who buys their beans and processes them, giving the women an opportunity to earn an income. According to Marta Echavarría, working almost exclusively with women also ensures that the income benefits the family and is invested in food and education.

“Ecodecisión’s” corporate goal is to protect biodiversity in the Amazon region and develop financing options to achieve that goal. “Basically, our goal is nature conservation”, explains Marta Echavarría. “Macambo is a means to an end. The crucial question for us is how many farms benefit from Macambo production and how many hectares we can

protect from deforestation. Our focus is on working with small farmers to build a network of agroforestry systems and thus preserve the rainforest.”

For further information:
www.foodmonkconsultant.com

IPD at ISM 2026 – Hall 10.1, Stand F-069

Those who are interested in dark cocoa rather than white cocoa will also find cocoa and chocolate producers from Colombia and Madagascar at the IPD stand. In addition to chocolate products, they will also be presenting raw cocoa products such as cocoa beans, nibs, mass and juice at ISM. Another highlight at the IPD stand will be dried exotic fruits: a company from Colombia specialises in purple passion fruit and will be bringing it to ISM in various processed forms. A colorful basket of dried fruits will be arriving in Cologne from Madagascar, including pineapple, mango, papaya, jackfruit, physalis and lychees.



MAYONNAISE MAKING PLANT

“Innovation That Blends Taste and Technology.”

NIHIRA

NIHIRA FOOD ENGINEERING LLP
Plot No. 185, Sector No. 07, PCNTDA, Bhosari,
Pune 411026 Maharashtra, India.
T: + 91 20 66350099 M: + 91 97675 14222
E: santosh@nihira.in, santoshkarale@yahoo.com
W: www.nihira.in

Sugar Replacers in Bakery Products and Their Processing Effects

■ By Dr. Ruchi Verma*

Sugar is an essential ingredient in bakery products as it provides sweetness, improves texture, contributes to browning, and enhances shelf life. However, increasing health concerns such as diabetes and obesity have led to a demand for low-sugar and sugar-free bakery products. To meet this demand, sugar replacers are used in bakery formulations. These replacers help reduce calorie content but also influence processing behaviour and product quality.

1. Role of Sugar in Bakery Processing

In bakery products, sugar performs multiple functions. It enhances flavour and sweetness, aids in moisture retention, and improves crumb softness. Sugar also contributes to browning through Maillard reaction and caramelization during baking. In yeast-leavened products, sugar acts as a fermentable substrate, supporting carbon dioxide production and volume development. Due to these multiple roles, replacing sugar is technically challenging.

2. Types of Sugar Replacers Used in Bakery Products

Sugar replacers are broadly classified into artificial sweeteners, sugar alcohols, and natural sweeteners. Artificial sweeteners such as aspartame and sucralose provide high sweetness but no bulk. Sugar alcohols like sorbitol and xylitol offer bulk and moisture retention with reduced calories. Natural sweeteners such as stevia and honey are preferred for clean-label products but may affect flavor and texture.

3. Effect on Dough Properties

Sugar replacers significantly affect dough rheology and handling. Artificial sweeteners lack bulk, resulting in weaker dough structure. Sugar alcohols improve dough softness due to their humectant properties. Natural sweeteners may increase stickiness and alter water absorption, requiring formulation adjustments during mixing.



Types of Sugar

4. Effect on Fermentation

In yeast-based bakery products, sugar supports yeast activity. Artificial sweeteners are non-fermentable and reduce gas production, leading to lower volume. Partial sugar replacement is often used to maintain fermentation efficiency while reducing total sugar content.

5. Effect on Baking and Browning

Sugar contributes to color development during baking. Artificial sweeteners and polyols show limited browning, producing pale products. Natural sweeteners like honey support better browning due to their reducing sugar content.



Types of Sugar



Types of Sugar

8. Conclusion

Sugar replacers are valuable ingredients in developing healthier bakery products. However, they significantly affect processing parameters and product quality. Careful selection and combination of sugar replacers, along with process optimization, are essential for producing acceptable low-sugar bakery products.

6. Effect on Texture and Shelf Life

Sugar delays starch gelatinization and improves tenderness. Its replacement may result in harder products. Sugar alcohols help retain moisture and slow staling, improving shelf life. Artificial sweeteners alone may cause faster drying and reduced freshness.

7. Challenges in Using Sugar Replacers

Major challenges include difficulty in replicating sugar's multifunctional role, changes in taste and texture, higher ingredient costs, and possible aftertaste. Regulatory limits also restrict the use of some artificial sweeteners.

About the author:

* Dr. Ruchi Verma
Assistant Professor, Department of Food Processing and Technology
Gautam Buddha University, Greater Noida-201312
Corresponding mail Id:
ruchiverma0715@gmail.com



Organic and Non GMO ESSEMM[®] SOYA LECITHIN

ESSEMM[®]
ISO 22000-2018 Certified

Featuring among the top player in India with more than 25 YEARS of experience and rapidly expanding globally, Shiv Maheshwari Oil & Chem Pvt Ltd is the leading exporter and manufacturer of high quality NON GMO Lecithin branded as ESSEMM[®].

Our Product List:

- ESSEMM Soya Lecithin Food Grade
- ESSEMM Soya Lecithin Hydrolyzed
- ESSEMM Soya Lecithin Feed Grade
- ESSEMM Acetylated Soya Lecithin
- ESSEMM Hydroxylated Soya Lecithin



Certifications:



Inspiring Trust, Assuring Safe & Nutritious Food
Ministry of Health and Family Welfare, Government of India



Shiv Maheshwari Oil & Chem Pvt Ltd

Survey No 152/A5/1 & 152E, Automotive Park, IDA Kallakal,
Manoharabad Mandal, Medak Dist., Telangana - 502336 INDIA

✉ shivmaheshwari2003@gmail.com 🌐 www.shivmaheshwari.com ☎ +91 9848041945, 9542850009

2025 Sees Growth for Australian Technology Manufacturer Flavourtech



Member for Murray Helen Dalton MP and Flavourtech CEO Leon Skaliotis formally opening the company's new headquarters

Australian processing technology manufacturer, Flavourtech, has wrapped up the year with the expansion of its Australian headquarters and new European base in the Netherlands.

Flavourtech celebrated the opening of its new head office and expanded manufacturing facilities in Griffith, Australia on 9 December 2025. A ribbon-cutting ceremony was attended by local dignitaries including Member for Murray Helen Dalton MP, Griffith Mayor Councillor Doug Curran, and Chair of the Export Council of Australia Dianne Tipping, as well as representatives from Business NSW, Investment NSW, RDA Riverina and AusIndustry.

The new facilities feature modern workspaces, meeting rooms, electrical manufacturing, CNC machining and currently house over 50 of the company's Australia-based staff with room to add to this number in the future. "The building has been fully renovated to accommodate both recent and future growth, and we look forward to welcoming customers and suppliers to our fantastic new space", said **Flavourtech CEO Leon Skaliotis**. "Overseas demand for our unique technologies is continuing to grow, and this additional space allows us to manufacture and ship more of our systems to customers all around the world", he continued.

Meanwhile, on the other side of the globe, Flavourtech's new European home, the Plus Ultra III building at Wageningen University & Research (WUR), was officially opened on 12 November 2025. Located in the Netherlands, WUR is part of the private-publicly funded ten-year Foodvalley 2030 programme that reinforces collaboration between private and public partners. Developed by Kadans Science Partners, Plus Ultra III is the first laboratory building in the Netherlands built almost entirely with Cross Laminated Timber (CLT), making the building CO₂-negative. The façade is clad with specially developed tiles made of 100% recycled PVC, and the building has been

designed with circularity in mind: all components are demountable, and solar energy, thermal energy storage, and nature-inclusive elements have been incorporated.

Plus Ultra III was officially opened by Peter Ploegsma (WUR), Michel Leemhuis (Kadans), and Wageningen's Mayor, Floor Vermeulen. Guests were given, under the theme of Circularity on the Wageningen Campus, a unique insight into both the building and the work of organisations on and around the campus. Its flexible laboratories and pilot plants, combined with offices and shared facilities, make the building an ideal base for both start-ups and scale-ups, as well as R&D departments of established companies in the innovative food sector.

Flavourtech, along with Fuji Oil, Yakult, and Samyang Foods, are among the first users of the pioneering building with Flavourtech's CEO, Leon Skaliotis, commenting that "Flavourtech and

our European customers are very excited to have our offices and pilot plant at Wageningen University". The Australian company is looking forward to future collaboration with customers, academic staff and the resident international business community in developing and enhancing the food and beverage tastes and flavours of the future. Their European team is busy settling into the new mezzanine offices as well as coordinating the fit-out of a purpose-built pilot plant downstairs, which will be ready for customer trials in 2026.

Flavourtech designs and manufactures unique food and beverage processing technologies that are exported to over 60 countries around the world including:

- The Spinning Cone Column (SCC) for natural aroma recovery and dealcoholisation
- The Centritherm® evaporator for the concentration of heat-sensitive products

- The Rotating Disc Column (RDC) for extraction during the production of soluble coffee
- The Integrated Extraction System (IES) for the production of RTD and soluble tea/coffee
- The Resin Adsorbing Column (RAC) for the production of zero alcohol beverages
- Aquaporin Forward Osmosis Systems for the concentration of natural aromas

For more information on their innovative technologies, visit www.flavourtech.com



Flavourtech's new European home: Plus Ultra III at Wageningen University in the Netherlands



Driving Efficiency & Sustainability Through Advanced Power Transmission Systems

In today's industrial landscape, efficiency and sustainability are no longer optional; they're essential. Power Build, with its decades of engineering excellence, is at the forefront of this transformation. Through its advanced range of power transmission products, the company is actively helping industries minimize energy consumption, extend machine lifespans, and transition toward greener manufacturing practices.

Power Build's entire gearbox and geared motor portfolio is engineered with energy optimization at its core. Whether it's the **Series M Helical Inline Geared Motors**, known for their compact design and high efficiency, or the **Series K Helical Bevel Geared Motors**, offering torque up to 50,000 Nm with minimal energy loss, each product is built to maximize output while reducing unnecessary power draw. These solutions are precision-designed to minimize friction, vibration, and wear three major contributors to energy inefficiency and mechanical failure.

One of the most effective ways Radicon supports sustainability is through its gear systems' **high mechanical efficiency**, which directly contributes to lower electricity consumption in continuous operations. For example, the **Series C Heli-Worm and Series F Parallel Shaft Geared Motors**



PBL Image



Loose Gear



PBWR Series



Series A



Series PN



Series_C



Series_F



Series_J



Series_K



Series_M

are designed to deliver optimal performance even under varying load conditions, reducing the stress on motors and associated systems. This not only conserves energy but also lowers the carbon footprint of plants over time.

Moreover, Power Build's **planetary (Series PL)** and **worm gear (PBWR)** series contribute significantly to space-saving, heat reduction, and maintenance-free operations all of which are key to sustainable plant design. Many of these gearboxes are pre-filled with high-grade lubricants and designed for long maintenance cycles, ensuring reduced downtime and lower waste generation over the life of the equipment.

To complement its mechanical excellence, Radicon also offers the **PBL VFD Series (Variable Frequency Drives)** a modern, electronic solution that brings intelligent speed and torque control to the table. These drives allow motors to operate at optimal speeds, cutting down on excess energy use during startup, operation, and load

variations. The result is a finely tuned drive system that aligns with green manufacturing goals.

Lastly, through extended equipment life cycles, Radicon products inherently reduce the need for frequent replacements and resource consumption. Gear units like the **Series J Shaft Mounted Reducers** and **Roloid Gear Pumps** are crafted with durability and long-term efficiency in mind, further reinforcing the company's commitment to sustainable industry practices.

Power Build isn't just powering machines, it's enabling a future where industrial growth and environmental responsibility go hand in hand.

<https://www.powerbuild.in>
Call: +919727719344





Intelligent Packaging Solutions for the Bakery Industry

Recent years have seen some breathtaking advancements in the bakery industry, particularly in the area of process and packaging machines, and technical and structural changes are under way in the sector. Consumers are demanding more sustainable packaging, a shortage of skilled labour is making automation imperative, and energy and material efficiency are increasingly becoming competitive factors. Therefore, these days, packaging solutions for bread, croissants, yeast rolls, cakes and the like are required to be ecological, economical and technologically flexible in equal measure.

Sustainability is a crucial factor and many manufacturers are already focussing on recyclable, compostable or bio-based materials, such as paper-based solutions, PLA films or monomaterials. For example, at the trade fair, interpack exhibitor Weber Verpackung will be showing its Baker Bag for self-service counters. The paper packaging can be equipped with viewing windows made of thin transparent recycled film or transparent paper (glassine). With a glassine window, the bag can be easily disposed of in the waste paper bin for recycling. Product protection is the top priority, however, to

ensure that bread or cakes do not spoil prematurely. For this reason, innovative packaging systems need to primarily combine hygiene and shelf life with sustainability. Barrier functions that reduce the exchange of water vapour and oxygen, and thus keep the contents fresh, are particularly in demand for vending machine bags for the automatic packaging of bread and baked goods. Currently, these barriers can only be achieved when paper packaging is used by means of plastic coatings, film laminations or coatings with a polymer-containing layer. All the same, plastic content is significantly lower than with a foil bag.

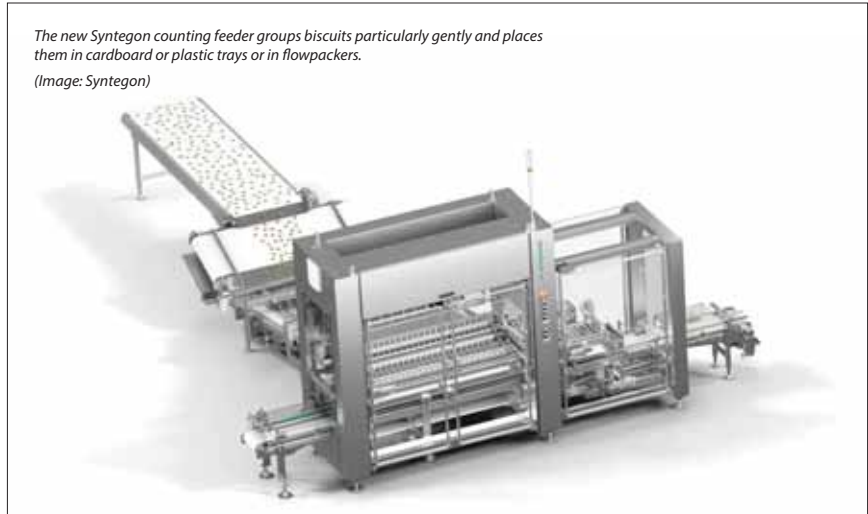
For fresh baked goods, Weber offers Baker Bags made of paper with a viewing window made of film, recycled film or glassine. (Image: Weber Verpackungen)



A parallel advancement to material development is the automation of packaging processes. Robotics and artificial intelligence are increasingly finding their way into production and enable precise, gentle handling of delicate baked goods. Modern systems work with camera-supported detection systems that analyse the shape, position and quality of the products in real time. This means that only flawless goods are packaged, waste is reduced and process reliability is increased. At the same time, changeover times are significantly reduced – a decisive factor in view of smaller batch sizes and frequently changing product variants. This is where interpack 2026 will present the latest technological developments and innovations to a broad trade audience at first hand.

Intelligent systems for large companies and SMEs

Digitalisation enables networks of machines, sensors and control systems in baked goods production to create intelligent overall systems. Process data such as temperature, sealing quality or material consumption are continuously recorded and automatically analysed. Platforms



*The new Syntegon counting feeder groups biscuits particularly gently and places them in cardboard or plastic trays or in flowpackers.
(Image: Syntegon)*

such as VisionAI use AI-based image analysis to immediately recognise deviations and adjust parameters in real time. Predictive maintenance is also becoming increasingly important: by analysing machine data, failures can be prevented and downtimes minimised. Such smart factory concepts are no longer the preserve of large companies, but are increasingly of interest to medium-sized baked goods manufacturers.

Robotics, sensor-based control systems and AI show their strengths when it comes to sensitive or irregularly shaped products in particular. Gerhard Schubert GmbH, for example, has developed the Cobot

tog.519, a solution that combines AI-supported image recognition and flexible robot kinematics. The Cobot picks up a wide variety of baked goods – even unsorted – at up to 90 cycles per minute. New product moulds can be integrated quickly using tools from the 3D printer, which reduces changeover times and investment costs.

Versatile packaging solutions for small batches are very popular in the biscuit and baked goods industry. As many users also have limited floor space, systems with a compact layout are becoming increasingly important. This is where Schubert's technology comes in, with manoeuvrable, space-saving robots. The French biscuit manufacturer Nutrition & Santé has already integrated such solutions into its production. The initial spark for the cooperation with Schubert was interpack 2023. There, the packaging machine manufacturer presented a completely new, efficient feeding system for pre-cut parts of boxes. After the trade fair, Nutrition & Santé opted for a system with a flowpacker, cartoner and two single-lane A3 erectors, which packs a total of 13 different types of biscuits (including rectangular and round biscuits, chocolate-nut varieties and filled bars). The centrepiece of the

*The Cobot for pick-and-place applications, tog.519, combines AI and robotics into a flexible full solution.
(Image: Gerhard Schubert GmbH)*



system is the versatile TLM cartoner, which can flexibly handle seven bag formats and carton sizes.

Machine manufacturer Syntegon recently introduced a new counting system for the efficient packaging of biscuits. The FGCT counting feeder promises gentle handling, greater efficiency and less product waste. The system groups biscuits in the desired quantity particularly gently and places them upright in trays or directly into the infeed of a flowpacker.

With its Alpha Wrapper systems, Fuji Packaging also offers practical solutions for sensitive baked goods with resealing options and opening aids. Space-saving, chainless film guides enable flexible handling, and the Fuji sealing technology ensures the processing of modern, sustainable and recyclable packaging materials. The Hamburg-based company, which has been selling flowpackers from Japanese manufacturer Fuji Machinery in Europe for over 40 years, also has various solutions for MAP packaging in its portfolio, such as the Pre-Vac system, in which the products are evacuated and then flushed with inert gas.

Process heat-sealable papers at high speed

The industry's innovative strength is also evident in high-performance



The IER 030 topper places 400 bags per minute into the secondary packaging. | (Image: Sacmi)



With the Cooling@Packing system, baked goods can be packaged immediately after baking.

packaging. JTM Foods, a leading US manufacturer of snack pies, is using JT Advance horizontal flow-wrapping machines with contactless feeding from the Italian manufacturer Sacmi Packaging & Chocolate in its new production facility. The fully electronic, servo-controlled systems can be configured for flat pouches, side-gusseted pouches, pouches with offset sealing, pouches with tear strip and on-edge packaging with longitudinal and transverse sealing. They can achieve up to 200 cycles per minute

and use heat-sealable paper films. Individually 3D-printed forming shoulders prevent material breakage and enable high packaging speeds at a consistent level of quality. The system is complemented by compact secondary packaging solutions such as the IER 030 topper and the F-EL carton erector, which are designed for high output in a limited space.

Multivac is breaking new ground in process integration with the Cooling@Packing system, a vacuum application that transfers the cooling process directly to the thermoforming packaging machine. Thanks to vacuum cooling, baked goods can be packaged immediately after baking, since the temperature drops from 95 to around 30 degrees within a few seconds. This saves energy, reduces the space required for cooling systems and minimises the risk of product contamination.



With the Fuji Alpha Wrapper, sensitive bakery products can be packaged efficiently and in a material-saving manner. (Image: Fuji Packaging)

For further information:
www.interpack.de



Chefouse- Redefining India's Regional, Ingredient-Led Sweets and Snacks

INTERVIEW



In conversation with K P Noorudheen - Founder & Managing Director and Fathima Fasmina - Executive Director, they delve into the company's trajectory, trends in the sector, their specific role in it, and their future plans.

Q 1 HOW HAS THE TRAJECTORY OF YOUR COMPANY BEEN SO FAR IN THIS SECTOR AND WHAT ARE THE LESSONS THAT YOU HAVE CULTIVATED?

A: Chefouse is being built with a long-term vision of creating a national brand for India's regional snacks, and our journey so far has focused on developing multiple village-based food factories to tap into authenticity—of ingredients, food culture, and traditional know-how. We are currently in the early growth stage, with our products available in retail stores across Kerala and also sold online to customers all over India.

This phase has offered valuable learnings. One key lesson is that the market is always open to

new products when they are authentic and well executed. Another important learning is the need to build systems aligned to your own business model, rather than simply adopting generic industry practices. Starting these systems early has helped us continuously refine our processes and move closer to building a scalable yet authentic food brand.

Q 2 WORKING IN THIS NICHE SECTOR, HOW DO YOU THINK THE HEALTHY SWEETS CATEGORY IS BOOMING? HOW MUCH WILL IT GROW IN THE NEXT FIVE YEARS?

A: Today, almost everyone understands the importance of eating healthy, but the definition of *what is healthy* varies from person to person and continues to evolve. The popular definition of healthy

eating—based purely on cutting out foods—is neither practical nor sustainable in the long run.

We see the future moving towards diversity of crops, where foods are made from varied grains and ingredients so the body receives balanced nutrition, with no nutrient excess and no nutrient deficiency. As this understanding deepens, the idea of completely avoiding sweets as a healthy habit is gradually declining. Instead, sweets are evolving into more thoughtful, ingredient-driven formats.

Looking ahead, this evolution will shape the next phase of growth in the category. We expect the healthy sweets segment to grow steadily at 15–20% CAGR over the next five years, driven by innovation in ingredients and formulations, rather than elimination-based positioning.

Q³. WHAT ARE SOME OF THE BIGGEST CHALLENGES YOU'VE FACED IN SCALING YOUR BAKERY PRODUCTS (E.G., COOKIES) WITHOUT COMPROMISING TASTE OR QUALITY?

A: Since Chefouse does not follow conventional bakery product formats, we face unique challenges while scaling. Our use of ingredients such as jaggery and millets, instead of refined flour and refined sugar, means working with supply chains that are still evolving and less standardised.



Variations in these ingredients affect baking behaviour, taste, and texture, making consistency at scale more demanding. Overcoming this requires tighter sourcing control, clearly defined specifications, and continuous quality validation. While challenging, this approach is essential to preserve the integrity of our products and our commitment to non-conventional formulations.



Q 4. HOW DO YOU ENSURE QUALITY AND CONSISTENCY ACROSS BATCHES, ESPECIALLY WITH HIGH-DEMAND ITEMS LIKE COOKIES?

A: At Chefouse, we strongly believe that quality ingredients lead to quality products. Our quality assurance begins with raw material sourcing based on strict specifications defined by our R&D, ensuring consistency and reliable performance from the very first step.

This foundation is reinforced through expert supervision, a highly committed team, and a world-class production facility designed around hygiene and process discipline. By following a systematic, end-to-end approach across sourcing, production, and packing, we are able to maintain consistent quality and taste across batches, even for high-demand products like cookies.

Q 5. WHAT ARE THE TRENDS THAT YOU FORESEE IN THIS SECTOR AND WHAT ARE YOUR PLANS FOR THE FUTURE?

A: A key shift we see in the sector is a move away from **elimination-driven positioning**—such as completely removing sugar or maida—towards an **inclusion-led approach**. Large and credible players are increasingly focusing on **adding better ingredients**, improving ingredient diversity, and creating more balanced formulations rather than promoting extreme exclusions.



This reflects a growing consumer understanding that long-term healthy eating comes from **variety and inclusion**, not restriction. Alongside this, hygiene is becoming non-negotiable. Consumers will no longer compromise on how food is produced, and a sector historically challenged by hygiene standards is now undergoing a necessary transformation.

At Chefouse, our plans are aligned with these trends. We are building **truly diverse snack options** while setting **new benchmarks in hygienic, transparent manufacturing**. Our focus to lead this shift by demonstrating that inclusion of good ingredients, backed by world-class hygiene, is the future of the bakery and snacks sector.



SUBSCRIBE

₹ 999/-

For 1 Year Digital

₹ 2,299/-

For 1 Year
Print

₹ 3000/-

For 1 Year
Print and Digital



Shifting Sip Preferences: From Colour Appeal to Functional Wellness in the Beverage Market

■ By Dr. C. Pandiyan, Ph.D and R.Kavitha Ph.D

1. Introduction

The global beverage sector is undergoing a remarkable transition as consumer preferences move away from traditional coloured beverages—typically high in sugars and artificial additives—toward functional beverages that deliver measurable health benefits. Historically, brightly coloured drinks have dominated due to their visual appeal, sweetness, and sensory gratification. Their vibrant hues, engaging packaging, and bold flavors create strong sensory cues that significantly shape consumer choices and perceived taste (Spence, 2015). However, heightened awareness of lifestyle-related health concerns such as obesity, diabetes, cardiovascular diseases, and metabolic disorders have driven a paradigm shift toward healthier options.



Rise of Functional Beverages

Functional beverages, defined as drinks containing bioactive compounds that provide benefits beyond basic nutrition, have become key players in this evolving market. They include probiotic drinks, plant-based formulations, fortified juices, herbal infusions, and products enriched with vitamins, minerals, antioxidants, and adaptogens. Their value lies not only in health promotion but also in offering convenient, on-the-go wellness solutions (Grand View Research, 2025). The global functional beverage market, valued at USD 149.75 billion in 2024, is projected to reach USD 248.5 billion by 2030 (Giri et al., 2023). This rapid growth is fueled by increasing consumer demand

for flavorful, health-focused, and convenient drinks.

Yet, consumer expectations shaped by coloured drinks pose challenges for functional beverages. Bright colours are often associated with sweetness, indulgence, and superior taste, making the subtler hues of many functional drinks a potential barrier to acceptance. Thus, both health benefits and sensory experience remain critical for adoption.

Generational trends further reinforce this shift. Millennials and Gen Z consumers, in particular, favour clean-label, plant-based, and functionally enhanced products while also prioritizing sustainability and ethical sourcing (Firebelly



Marketing, 2025). These overlapping drivers of health awareness, sensory preference, and ethical consumption create both opportunities and challenges for beverage manufacturers aiming to reshape consumption behaviours in a colour-driven marketplace. This review explores these dynamics, focusing on how functional beverages can capture consumer attention, the role of colour and sensory cues in shaping perceptions, and strategies to strengthen acceptance and competitiveness.

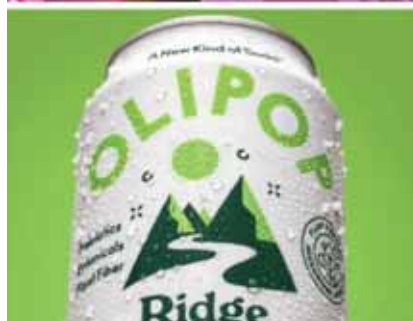
2. Market Dynamics and Consumer Preferences

2.1 Growth of Functional Beverages vs. Traditional Sugary Coloured Drinks

Growth of Functional Beverages:

The functional beverage sector is expanding rapidly, supported by growing consumer demand for health-oriented products. Valued at USD 149.75 billion in 2024, it is forecasted to reach USD 248.51 billion by 2030, with a CAGR of 8.9% (Firebelly Marketing, 2025). The key drivers include:

- **Health Consciousness:** Consumers increasingly seek beverages with benefits such as improved digestion, immunity, and cognitive performance.
- **Product Innovation:** Advances in formulations enriched with probiotics, adaptogens, vitamins, and minerals fuel consumer interest.
- **Generational Influence:** Millennials and Gen Z show stronger preference for wellness-oriented beverages aligned with their values (Dimitrova and Ilieva, 2023).
- **Strategic Acquisitions:** Multinational corporations are diversifying



their portfolios through functional beverage acquisitions—for example, PepsiCo's purchase of prebiotic soda brand Poppi for nearly USD 2 billion reflects a growing industry emphasis on health-driven products.

Decline of Sugary Coloured Drinks:

By contrast, traditional sugary coloured beverages are in decline, owing to several factors:

- **Health Risks:** Excessive sugar consumption is strongly linked to obesity, diabetes, and cardiovascular disease. Organizations such as

the American Heart Association advocate for reduced intake (Muth et al., 2019).

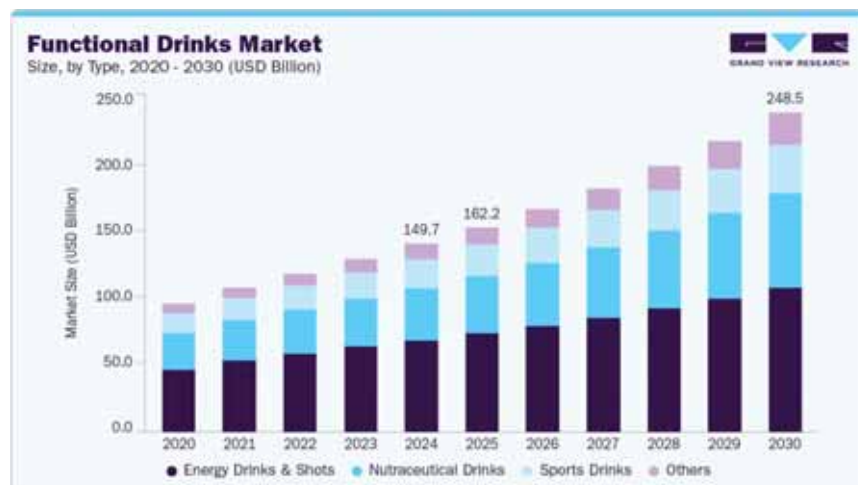
- **Regulatory Policies:** Sugary drink taxes have curbed purchases in many regions. For example, taxes implemented across five U.S. cities led to a 33% decline in sugary beverage sales (Donnelly et al., 2021).

- **Consumer Awareness:** Public education campaigns and broader knowledge of the adverse health impacts of sugary drinks are encouraging consumers to seek healthier alternatives.

3. Sensory Perception and Colour Influence

3.1 Colour's Impact on Perception

Colour is a powerful sensory cue that influences expectations and perceived flavour. Consumers frequently associate specific colours with particular tastes, which shapes their purchasing choices (Spence, 2015; Mohamed et al., 2025). For example, darker colours are often linked to stronger flavours and greater nutrient content, which can affect the acceptance of functional beverages that lack the vibrant appearance of conventional coloured drinks (Kardas et al., 2024).



3.2 Challenges for Functional Beverages

Functional beverages often derive from natural or plant-based ingredients, resulting in muted or non-traditional hues. This contrast with vividly coloured drinks can hinder acceptance. Moreover, the benefits of functional ingredients are not always visually or immediately evident, creating an educational gap for consumers. Overcoming these hurdles requires targeted marketing, innovative use of natural colourants, and product design strategies that balance sensory appeal with health positioning.

4. Strategies for Encouraging Functional Beverage Consumption

4.1 Product Innovation: Developing functional beverages that visually resemble conventional coloured drinks through natural colourants and appealing packaging can increase acceptance.

4.2 Educational Marketing: Brands should emphasize transparent communication of health benefits, using digital platforms, influencer marketing, and interactive campaigns to inform and engage consumers.



4.3 Sensory Experience Enhancement:

Optimizing flavour profiles and packaging aesthetics, while leveraging multisensory experiences, can enhance consumer perception and encourage trial.

Conclusion

The global beverage market is in the midst of a profound transformation as consumer preferences shift from traditional sugary, coloured drinks to health-oriented functional beverages. This change is driven by increasing awareness of diet-related health risks, regulatory pressures, and the rising influence of younger, health-conscious

generations. Functional beverages, with their diverse range of bioactive compounds and health-promoting attributes, represent a growing segment that aligns with modern lifestyle demands for convenience, wellness, and sustainability.

About the authors:

Dr. C. Pandiyan, Ph.D and R.Kavitha Ph.D
 Veterinary College and Research Institute (Tamil Nadu Veterinary and Animal Sciences University)
 Namakkal - 637 002,
 Tamilnadu State, India
 E mail ch.pandiyan@gmail.com

References

1. Grand View Research. (2025). *Functional Drinks Market Size & Share | Industry Report 2030*. Retrieved from <https://www.grandviewresearch.com/industry-analysis/functional-drinks-market>
2. Firebelly Marketing. (2025). *Gen Z Beverage Marketing: Health Trends and Social Shifts Are Transforming Tastes*. Retrieved from <https://firebellymarketing.com/blog/gen-z-beverage-marketing-health-trends-and-social-shifts-are-transforming-tastes/>
3. BMC Flavour. (2015). *On the psychological impact of food colour*. Retrieved from <https://flavourjournal.biomedcentral.com/articles/10.1186/s13411-015-0031-3>
4. Sensient Food Colors. (2019). *Evaluating Color's Impact in Food and Beverages*. Retrieved from <https://na.sensientfoodcolors.com/industry-trends/evaluating-colors-impact-in-food-and-beverages/>
5. Spence, C. (2015). *On the psychological impact of food colour*. *Flavour*, 4(1), 21.
6. Muth, N.D., Dietz, W.H., Magge, S.N., Johnson, R.K., American Academy of Pediatrics, Section on Obesity, Committee on Nutrition, American Heart Association, Bolling, C.F., Armstrong, S.C. & Haemer, M.A. (2019). *Public policies to reduce sugary drink consumption in children and adolescents*. *Pediatrics*, 143(4), e20190282.
7. Donnelly, G.E., Guge, P.M., Howell, R.T. & John, L.K. (2021). *A salient sugar tax decreases sugary-drink buying*. *Psychological Science*, 32(11), 1830–1841.
8. Mohamed Sodom, N.Z., Quoquab, F. & Mohammad, J. (2025). *"Nourish to flourish": boosting functional food and socially conscious purchase of Gen-Y and Gen-Z consumers*. *British Food Journal*, 127(7), 2623–2642.
9. Dimitrova, T. & Ilieva, I. (2023). *Consumption behaviour towards branded functional beverages among Gen Z in post-COVID-19 times: Exploring antecedents and mediators*. *Behavioral Sciences*, 13(8), 670.

SUBSCRIBE

STAY AHEAD OF THE COMPETITION



AVAILABLE ON
www.fmtmagazine.in or www.fmtmagazine.in

For Enquiry email at info@fmtmagazine.in



Outlook on Spices for 2026

■ By Ms. Akshita Budhiraja*

Spices represent a significant share of both the Indian domestic and international markets. Traditional Indian spices and blends are essential to Indian cuisine, and the growing popularity of global cuisines is reshaping the spice market.

The last decade has seen not just a conspicuous rise in spice production in India but also in the exports. India reinforced its position as the world's largest spice producer, and a growth in packaged and improved product levels especially in terms of quality and origins.

Now, with 2026 fast approaching in a few days, noticeable changes in outlook are evident in terms of spices. These will be game-

changers in terms of domestic and international demands and outlook.

Number Game

In 2025, the Indian spice market is estimated to have reached approximately 9.58 billion US dollars domestically, with exports totalling 4.72 trillion US Dollars. By 2026, India will maintain its position as a leader in global production and export. The projected market growth is at around 26.95 billion US dollars with a growth rate of around 8.1% between 2026 and 2033. The Spice Board has set the target to around 10 billion dollars by 2030. The additional support is from a good supply chain, a promising climate supporting the spice production and manufacturing, and government initiatives pushing the growth.

Insights and Analysis

The demand of traditional and authentic whole spices is still high in turmeric, cumin, chilli powder, coriander, black pepper, mustard seeds, cardamon, cinnamon, cloves, bay leaf, tamarind, nutmeg, mace, star anise, and fenugreek.

The same goes for spice blends and seasonings like garam masala, kitchen king, pav bhaji masala, curry powder, non-vegetarian blends, biryani mix, chaat masala, and regional specialities like chole masala, panch phoran and sambar and rasam masala. A growing interest in vegetarianism will see a push for vegetarian-only blends and seasonings.

Customer preferences for organic and healthy spices will continue in 2026. Health-conscious customers want spices with their natural benefits and qualities intact and growth without artificial methods. It will push for better production and spice brands, further investing in quality-control for the same.

The value-added products aspects will also see a prominent growth. More customers are interested in ready-to-make convenience items. It means the year seeing brands heavily investing in these related spice sectors without compromising on quality and the organic angle.

The interest in blends, seasonings, and value-added products is also due to better shelf-life, smaller families, urbanisation, easy and quick preparations, and interest in diverse cuisines.

While India still has a huge domestic consumption, the global demand and interest for the traditional, organic, and healthy spices, blends, and seasonings will continue. It is also true for health-related spices and blends like ginger, tulsi, and ashwagandha.

Challenges ahead

Of course, 2026 will see challenges in spice trade growth within India and exporting. The changing and fluctuating weather, especially with regard to the monsoons, is negatively impacting the cultivation and quality, resulting in an increase in costs, supply chain, profits, and margins.

While India's global position as a leading supplier of spices, blends, and seasonings is still strong, rising competition from countries like



Indonesia and Vietnam, with their investment in high-level production, can be a threat. India is also not huge globally in terms of the global seasoning market.

India in 2026 will still retain its control on spice production, internal usage, and export. The question is if our country will deal with the challenges threatening its position.



About the author:

* Ms. Akshita Budhiraja,
Co-Founder, Orika Spices





A Triumph Beyond Words! India's Mithai & Namkeen Industry Took Center Stage at WMNC 2025, Delhi

The Indian mithai and namkeen industry created history at the World Mithai Namkeen Convention & EXPO (WMNC 2025), held from 19th to 21st December 2025 at the prestigious Yashobhoomi Convention & Exhibition Centre, Dwarka, Delhi. The three-day mega convention concluded on a triumphant note, emerging as one of the largest, most impactful, and most influential global platforms ever witnessed by the sector.

WMNC 2025 marked a defining milestone for an industry that has now proudly crossed the ₹1.5 lakh crore mark, underscoring an era of unprecedented growth and transformation. Beyond numbers, the event stood as a grand celebration of India's rich culinary heritage, traditional craftsmanship, and evolving innovation—earning

admiration from stakeholders and visitors across the globe.

The expo witnessed an overwhelming response, with 500+ exhibitors, 60,000+ visitors, and participation from over 35 countries, firmly establishing WMNC as a truly international event. The presence of esteemed **Guests of Honour** further elevated the stature of the convention, including:

- **Her Excellency Karen F. Richards**, Senior Agricultural Attaché for India, U.S. Department of Agriculture
- **Mr. Sudhakar Desai**, President, IVPA & CEO, Emami Agrotech Ltd.
- **Chef Harsh Kedia**
- **Mr. Giresh Vasudev Kulkarni**, Managing Director, TempleConnect

Addressing the gathering, **Mr. Firoz H. Naqvi**, Director General, Federation of Sweets & Namkeen Manufacturers (FSNM), highlighted the industry's remarkable festive-season performance. He attributed sustained growth during Diwali and beyond to improved hygiene standards, premiumisation, and strong collaboration between government bodies and industry stakeholders. Emphasising the emotional and cultural value of Indian sweets, he noted that mithai is not merely a product, but a symbol of tradition, celebration, and trust—gaining increasing acceptance in both domestic and international markets.

Mr. Virendra Jain, President, FSNM, expressed immense satisfaction over the overwhelming success of WMNC 2025. He stated that the

convention successfully united manufacturers, artisans, innovators, chefs, and global industry leaders on one common platform. According to him, WMNC 2025 reflected the strength, creativity, and future-ready mindset of India's mithai and namkeen sector, while fostering collaboration, knowledge-sharing, and international engagement that will propel the industry into its next growth phase.

Echoing these sentiments, **Mr. Vinay Nagpal**, General Secretary, FSNM, highlighted that with the industry growing at an annual rate of **12–15%**, WMNC 2025 proved to be the ideal platform for innovation and strategic dialogue. The convention hosted in-depth discussions on advanced packaging, regulatory compliance, artificial intelligence in manufacturing, the booming gifting culture, and featured exciting competitions in sweet-making and gift-wrapper design that saw enthusiastic participation.

A major highlight of WMNC 2025 was its **international showcase**, where global companies presented the latest technologies, ingredients, and market trends. Several overseas participants, including many with Indian roots, described the expo as a powerful platform to reconnect with India's vibrant market and artisanal excellence. The event further reinforced India's growing influence on the global food map, with exports of raw materials, spices, edible oils, and gram flour playing a crucial role in strengthening the international footprint of the sweets and snacks industry.

Celebrating Women Leadership

One of the most powerful and inspiring aspects of WMNC 2025 was its strong focus on **empowered women** leaders who are redefining the traditionally male-dominated mithai and namkeen

industry. The convention celebrated women entrepreneurs who are not only carrying forward family legacies but also carving their own identities through vision, resilience, and innovation.

To honour their transformative contributions, WMNC instituted a special **"Champion of Change" Award**, recognising women professionals who are breaking barriers and setting new benchmarks. Each awardee received a standing ovation during a dedicated felicitation ceremony.

In another prestigious moment, the **"Mithai–Namkeen Ratan" Awards** were conferred upon five distinguished women for their exceptional leadership and lasting impact.

Knowledge, Innovation & Thought Leadership

WMNC 2025 stood out for its robust **knowledge programme**, featuring **six high-impact seminars**, panel discussions, hands-on workshops, and engaging competitions that captivated audiences throughout the event. The seminar series was further energised by a **Gift Hamper Competition**, curated by Ms. Shalini Beriwal, and a **Mithai Competition**, organised by Fabbri 1905–KAP Group, showcasing creativity in presentation and excellence in taste.

Key sessions included:

- **"Taste, Tax & Tech: The Changing Landscape of the Food Industry"**, chaired by Sanjay Singhania, SVP – Commercial, Haldiram Snacks Food Pvt. Ltd.
- **"Evolving from Family Businesses to Institutional Brands"**, led by Siddharth Bafna and Paras Shah of Lodha Capital Markets
- **From Tradition to Innovation: Women at the Forefront of the**

Sweets and Snacks Revolution.

- **Gifting Beyond Boundaries.**
- **Spice Up Your Business.**
- **The Palm Oil Debate.**
- **Exploring the Potential of Indian Sweets in the Big Fat Indian Wedding Industry.**
- **Strategies for Managing Multiple Sweets Outlets & Centralised Production.**

Complementing these were interactive workshops on ghee, fusion mithai, and healthy dessert innovations, conducted by leading industry experts and chefs.

Celebrating Excellence

Among the most electrifying moments of WMNC 2025 were the **Gift Hamper Competition and Mithai Competition**.

A Grand Tribute to India's Sweet Legacy

WMNC 2025 emerged not merely as an exhibition, but as a grand celebration of success, innovation, and heritage. Made possible by the tireless efforts of the organising committee, FSNM, partners, sponsors, exhibitors, and visitors, the convention stood as a proud tribute to India's mithai and namkeen legacy and a powerful statement of the nation's culinary excellence on the world stage.





TCPL Packaging Limited

Empire Mills Complex, 414, Senapati Bapat Marg, Lower Parel, Mumbai-400013

Contact Person: **Mr. Vinit Nair** (For cartons & rigid packaging)

Contact Details: +91-98213 99459

vinit.nair@tcpl.in

Contact Person: **Mr. Abhijit Kubal** (For flexible packaging)

Contact Details: +91-86577 67001

abhijit.kubal@tcpl.in

TCPL manufactures folding cartons, printed blanks and outers, litho-lamination, plastic cartons, blister packs and shelf-ready



Andritz Technologies Private Limited

Survey No.389, 400/2A, 400/2C, Padur Road, Kuthambakkam Village, Poonamallee Taluk, Thiruvallur, Tamil Nadu, India, 600124

Contact Person: **Monisha**

Contact Details: +91-73581 07316

monisha.Backiyaraj.external@andritz.com

Process technologies, equipment, plants and automation



Gogia Chemical Industries Pvt Ltd

C-8/3, Block C, UPSIDC Site C, Industrial Area, Greater Noida, Uttar Pradesh-201306

Contact Person: **Deepika Sharma**

Contact Details: +91-98716 91024

deepika@gogia.com



Big Drum India Pvt Ltd

Plot No.10, IDA, Uppal, Ramanthapur Main Road, Hyderabad 500 039, Telangana, India

Contact Person: **Ms. Swathi G**

Contact Details: +91-9000011745,

Swathi@bigdrum.com

Manufacturers of Wafer Biscuit cones or Rolled Sugar cones



Blue Craft Agro

2nd Floor, 9, Abhishree Corporate Park, Nr. Swagat Bungalows BRTS Bus Stand, Ambali – Bopal Road, Ambali, Ahmedabad – 380 058

Contact Person: **Christina D'Souza**

Contact Details: +91-9996972752

christina.dsouza@bluecraftagro.com

Manufactures speciality starches, native starch and starch derivatives from maize



Buhler

13-D,12-D,13-C, and 13-B, KIADB Industrial Area, Attibele, Bengaluru – 562 107, India

Contact Person: **Sandeep**

Contact Details: +91-80 6777 0000 Ext.: 181

sandeep.kc@buhlergroup.com

Bühler offers equipment for the industrial production of biscuits, cakes, crackers, lye products and more.



CentricSoftware

Centric Software Hong Kong Ltd
Unit B, 15/F, OfficePlus @Mong Kok, No. 998, Canton Rd, Mong Kok, Kowloon, Hong Kong SAR, Chin

Contact Person: **Matilda Chan** - Senior Field Marketing Manager, South Asia

Contact Details: 852-98715587

matilda.chan@centricsoftware.com

Develop innovative solutions to plan, design, develop, source, buy, make, price, allocate, sell and replenish products for the food & beverage Industry.



Bunting Magnetics Europe Ltd

Northbridge Road Berkhamsted, Hertfordshire UK HP4 1EH

Contact Person: **Prem Naithani** -Senior General Manager Sales - India

Contact Details: +91 999 992 1043
redditch@buntingmagnetics.com

**Experts in Magnetic Separation and Metal
Detection Equipment**



Flavourtech Pty Ltd

Flavourtech 32 Lenehan Road,
Griffith NSW 2680, Australia

Contact Person: **Shiv Govind Pandey**
Territory Manager - India
Contact Details: +91-9560022943
shiv@flavourtech.com

**Flavourtech is a global technology manufacturer,
headquartered in Australia, specialising in aroma
recovery, extraction and evaporation solutions
for the food, beverage and pharmaceutical
industries**



Heat & Control

Mahindra World City, Plot No 2
8th Avenue, 1st Cross Road,
Chengalpattu Taluk, Kancheepuram District,
Tamil Nadu, Chennai 603004, India

Contact Person: **Babu V/ Tracy**
Contact Details: +61 428 776 386
tanderson@heatandcontrol.com.au

**Snacks Processing with Flexibility
and Quality**



Art Next Pvt Ltd (Nexibles)

Unit A6C, Lodha Industrial & Logistics Park - II,
Usatane Village, Navi Mumbai, Taloja Bypass
Road, Palava, Maharashtra - 421306 India

Contact Person: **Mr. Prasad Narkhede**
Marketing and Sales
Contact Details: M +8275233546

**Our extensive expertise in plastics and flexible
packaging solutions enables us to introduce
new ideas and superior execution to satisfy the
demands of our clients**



HRS

HRS Process Systems Ltd
3rd Floor, Kalpataru Infinia, F.P. No. 21, Old
Mumbai- Pune Highway, Wakdewadi,
Shivajinagar, Pune 411 005

Contact Person: **Sourabh Mishra**
Contact Details: +91-9960822253
sourabhmishra@hrsasia.co.in

Food Processing System

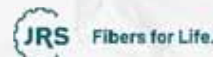


ifm electronic India Private Limited

Plot No. P-39/1, M.I.D.C., Gokul Shirgaon,
Kolhapur - 416234 Maharashtra, India
Marketing Department

Contact Person: **Shreyansh Gunde**
Contact Details: 0231-268-5920
shreyansh.gunde@ifm

**Sells sensors, controllers, software and systems
for industrial automation and digitalization.**



JRS India

Rettenmaier India Pvt Ltd.
816, Lodha Supremus-II, Road No. 22,
Wagle Estate, Thane (W) - Mumbai 400 604
Maharashtra, India

Contact Person: **Meeta Raheja**
Contact Details: +91-7738158615
meeta.Raheja@jrsindia.com

Nutrition for Human



R&D Engineers

A-41, Kukatpally Phase II,
Road No.4 via. I. E, Gandhi Nagar,
Hyderabad - 500 037, T.S, India.

Contact Person: **Rajesh Pamnani**
Contact Details: +91-40-23079121 / 23079878.
Mobile: +91-99590 00380
info@rndwafers.com



Chemie Colloids

138, Shivalaya Complex, Una - 362560.
Gujarat.- 362560

Contact Person: **Mr. Ishan Gandhi**
Contact Details: +91-83476 39761
ishangandhi@chemiecolloids.com

We Manufacture Different Grades (Chemie Gel® Series) of CARRAGEENAN, LOCUST BEAN GUM and XANTHAN GUM for different End applications



Food Monk Innovations Pvt Ltd

Sr.No 42/B/43/1/2 Behind Penguin Restaurant,
Next to MasterPro facility pvt ltd., Lupin Pharma
road, Nande, Tal.Mulshi, Dist Pune

Contact Person: **Bhagyashri Mhatre**, Founder
Contact Details: +91-8999199418
bhagyashri@foodmonkconsultant.com
Website - www.foodmonkconsultant.com

We are a professionally managed consultancy firm working specifically in the food processing sector staffed by a team of experienced food technocrats.



NIHIRA

Nihira Food Engineering LLP

Plot No-185,Sec-07,PCNTDA, Bhosari,
Pune-411026,India

Contact Person: **Santosh Karale**
Contact Details: +91-9767514222
santoshkarale@yahoo.com

Spout Pouch Filling and Capping Machine



PWS Engineers Private Limited

Post Box - 62, Panchal Estate, Nr Madhubhan
Resort Anand - Sojitra Road,
ANAND 388 001, (Gujarat) INDIA

Contact Person: **Mr Nishit Panchal**
Contact Details: +91-98253 19269
yogesh@pwsengineers.com

Ice Cream Cup Filling Machine

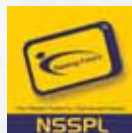


JFM Verbruggen India Private Limited

183 C, Nakkeeran St, Alwarthirunagar, Chennai -
600 087, Tamil Nadu, India

Contact Person: **Srinivasan T**
Contact Details: +91 98403 41690
srinivasan@jfm.co.in

Suppliers of Palletizing and Stacking Machines
for Bags, Boxes, Cartons and Crates



NSSPL

Block No.225/P, Chhatral-Kadi Road, Nr.
Somany Ceramic Godown, Dhanot-382729,
Ta.Kalol,Dist. Gandhinagar

Contact Person: **Dhruvika Dahia**
Contact Details: +91-98980 57640
dhruvika@nsspl.in

Turnkey Cold Storage Solutions / Potato
Processing Solutions / IQF Solutions /
Refrigeration System / Frozen Fruits and
Vegetables Processing Solutions / Seafood and
Dairy Processing Solutions



Shiv Maheshwari Oil & Chem Pvt Ltd

Survey No 152/A5/1 & 152 E, Automotive Park, IDA
Kallakal, Manoharabad Mandal, Medak-502 336

Contact Person: **Avinash Biyani**
Contact Details: +91-9848041945
shivmaheshwari2003@gmail.com




Manufacturer and exporter of high-quality NON-
GMO products, including ESSEMM soya lecithin,
and linseed oil

Put your brand in the spotlight

Feature your company here
for just ` 5,000 per month!

Contact at +91-93103 52414

Mark Your Calendars UNWRAPPING UPCOMING
EXHIBITIONS LINEUP

S.R NO.	EVENT NAME	DATES	VENUE
1.		20-22 January 2026	Tripura Vasini - Palace Ground Bengaluru
2.		20-22 January 2026	Tripura Vasini - Palace Ground Bengaluru
3.		20-22 January 2026	Tripura Vasini - Palace Ground Bengaluru
4.		20-22 January 2026	Tripura Vasini - Palace Ground Bengaluru
5.		10-14 March 2026	Bharat Mandapam, New Delhi
6.		22-24 April 2026	Bharat Mandapam, New Delhi
7.		01-03 July 2026	Codissia, Coimbatore, India
8.		26-28 August 2026	Bombay Exhibition Centre
9.		26-28 August 2026	Bombay Exhibition Centre
10.		10-12 September 2026	Chennai Trade Centre
11.		25-26 September 2026	Bharat Mandapam, New Delhi
12.		29 Sept-01 Oct 2026	Bombay Exhibition Centre
13.		29 Sept-01 Oct 2026	Bombay Exhibition Centre
14.		20-22 December 2026	Yahobhoomi, IICE, New Delhi

NOTE: Key numbers at the end of articles can be used as references for reader requests

DISCLAIMER: The views and opinions expressed in *Food Marketing & Technology, India* are solely those of the authors and do not necessarily reflect those of the editors or the publisher. Although all efforts have been made to ensure the complete accuracy of text, neither the editors nor the publisher can accept responsibility for consequences arising from errors or omissions or any opinions or advice given.



Healthy & Tasty



BLUECRAFT AGRO PVT. LTD.

CORPORATE OFFICE

10, Abhishree Corporate Park, Nr. Swagat Bungalows
BRTS Bus Stand, Ambli - Bopal Road, Ambli,
Ahmedabad - 380 058

+91-2717454547 | marketing@bluecraftagro.com

 Bluecraft Agro Private Limited

MALTODEXTRIN

FUNCTIONALITY

Texturizing | Film Forming | Binding | Increase Shelf Life

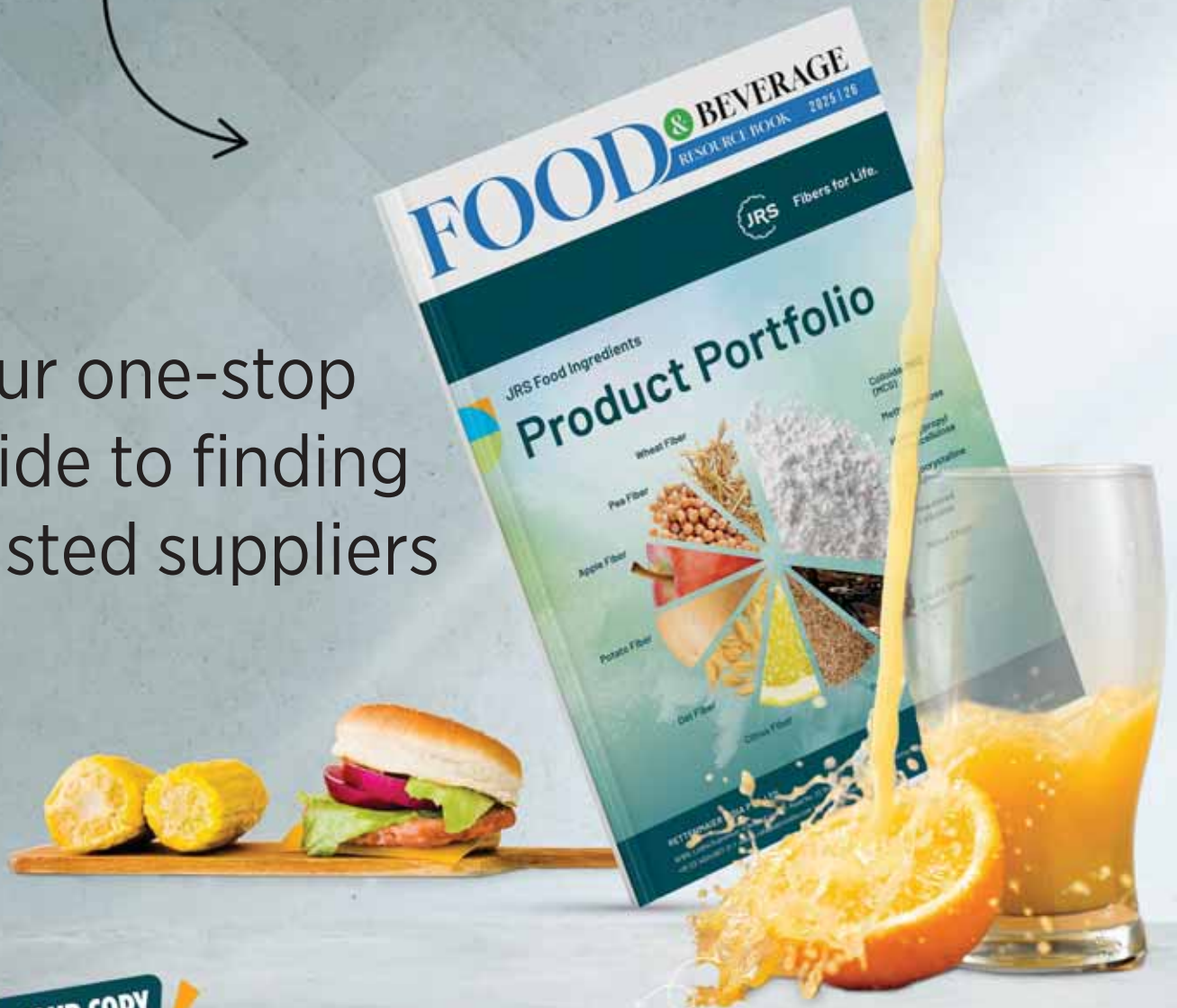


SIMPLIFY SOURCING

WITH THE FOOD & BEVERAGE RESOURCE BOOK

2025 | 26

Your one-stop
guide to finding
trusted suppliers



RNI No. UPENG/2010/38219

GET YOUR COPY
NOW!
@ ₹2,999

Available on
www.fmtmagazine.in

A Product of

food MARKETING & TECHNOLOGY
संस्था

Contact us:

+91-9310352414 | Email ID: bookresource1@gmail.com