





THE FRUIT AND VEGETABLE INDUSTRY SERIES









OECD-COLEAD Fruit and Vegetables Industry Series

Session n°10
The rise of convenience: How ready-to-eat foods are reshaping the Fruit and Vegetable sector

Thursday 19 June 2025
9:00-10:30 UTC/11:00-12:30 CET (time in Paris/Brussels)
Online (Zoom)

Live interpretation in English and French

1. Context

Convenience foods are commercially prepared products designed for ease of consumption and minimal preparation. These items typically require little to no additional ingredients or cooking, saving consumers valuable time in the kitchen. There are also ready-to-cook meals with pre-cut ingredients and easy recipes, making cooking simpler.

Ready-to-eat (RTE) foods are a large, heterogeneous category of foods that include any food (including beverages) that is consumed in its raw state, or those handled, processed, mixed, cooked or prepared into a form that is consumed without further processing. Their safety is crucial due to potential contamination risks and the need for proper handling and storage.

The rapid growth of the ready-meal industry is driven by several intersecting trends that are reshaping consumer behaviour and the food landscape.²

Increased urbanization and fast-paced lifestyles have led to busier schedules, with more people working longer hours and having less time to prepare meals. This has created a strong demand for convenient, time-saving meal solutions like ready meals.

For several years we witness **shifting households dynamics** and ready meals have become a goto option for busy professionals, dual-income households, and single-person households offering a practical solution to everyday dining needs.

² Innova Markets Insights. Consumer Trends: Global Convenience Eating. 9 April 2024. https://www.innovamarketinsights.com/trends/consumer-trends-global-convenience-eating/





¹ FAO.WHO. Codex Alimentarius. https://www.fao.org/fao-who-codexalimentarius/home





Consumers are also prioritizing **health-conscious choices**, leading to a surge in demand for ready meals. This has led to growing demand for RTE meals that meet specific dietary requirements such as vegan, gluten-free, low-calorie, or organic alternatives.³

There is also increasing interest in international flavours and fusion cuisines, with consumers eager to explore diverse culinary experiences at home.

The e-commerce boom, coupled with the rise of flexible remote work, has made online grocery platforms and food delivery services more prominent than ever dramatically increasing the accessibility of ready-to-eat (RTE) products.

As expectations rise, convenience foods are evolving beyond basic utility to deliver **premium quality**, **innovative flavour profiles**, and even **restaurant-like experiences**. The category now includes a wide array of products ranging from frozen entrees and snack items to ready-to-eat salads, pre-cut fruits, and portioned vegetables.

The industry's evolution is also driven by advances in **food preservation**, **sustainable packaging**, and **e-commerce**, which have improved accessibility and broadened the appeal of convenience foods for a wide range of consumers.

Although there is a long-term decrease in the consumption of F&V, fresh-cut products because of their convenience represent a valid alternative to counteract this negative trend. In fact, the fresh-cut sector is showing positive figures, and innovation in product quality and safety attributes, which are generally valued by consumers.⁴

2. Fruits and vegetables in convenience foods: a shift toward healthier options

The landscape of convenience foods is evolving, with vegetables and fruits playing an increasingly prominent role in quick and easy meal options. From ready-to-eat salads to freeze-dried meal kits, these nutrient-rich ingredients are transforming the way we think about prepared foods and challenging the perception that convenience foods can't be part of a balanced diet.

The improvement in ingredient quality has been a key factor in this transformation. Advances in food preservation techniques, such as freeze-drying and improved cold chain management, have allowed manufacturers to incorporate a wider variety of fruits and vegetables into convenience foods without sacrificing taste or texture.

The integration of fruits and vegetables into convenience foods spans various product categories such as: ready-to-eat meals (salad kits with fresh vegetables and dried fruits, microwavable vegetable-rich pasta dishes, and pre-made soups packed with a variety of veggies); snack foods (vegetable chips, fruit leathers, dried fruit and nut mixes, and pre-cut veggies with hummus or other healthy dips); frozen products (stir-fry vegetable mixes, smoothie kits with frozen fruit and vegetable blends); shelf-stable items (instant soups with dehydrated vegetables, fruit and nut bars, and vegetable-based pasta sauces); breakfast options (instant oatmeal with dried fruits, breakfast biscuits with fruit fillings, and pre-made smoothie bottles featuring fruits and vegetables).⁵

Personalization is another trend making waves in the RTE sector. Consumers are increasingly looking for meals that can be tailored to their specific dietary preferences and needs. This has led

⁵ Food & Hospitality Asia (FHA). The Future of Ready Meals: 10 Key Trends Shaping 2025. March 19, 2025.

Trends in Ready-to-Eat Food Products. Emerging Consumer Preferences and Innovations Shaping the Ready-to-Eat Food Market. 2023-2030. https://vocal.media/journal/trends-in-ready-to-eat-food-products

³ Ready-to-Eat Meals – Europe. The Ready-to-Eat Meals market in Europe. 2025.

⁴ Antonio Stasi, Giancarlo Colelli, Filippo Garini, Chapter 5 - Fruits and Vegetables, Editor(s): Charis M. Galanakis, Innovations in Traditional Foods, Woodhead Publishing, 2019, Pages 101-126, ISBN 9780128148877, https://doi.org/10.1016/B978-0-12-814887-7.00005-8.

https://www.sciencedirect.com/science/article/pii/B9780128148877000058





to the rise of **customizable RTE meal kits**, where consumers can choose their ingredients and portions. The ability to personalize meals adds a new level of appeal to RTE products, particularly for those with dietary restrictions or specific nutritional goals.

3. Advancements in food processing and packaging technology

Innovations in food processing and packaging have significantly transformed the ready-meal industry, enabling manufacturers to deliver products with longer shelf lives while maintaining high standards of quality, nutrition, and taste.⁶

Modern preservation techniques such as freeze-drying, high-pressure processing (HPP), vacuum-sealing, and flash freezing help retain the flavour, texture, and nutritional value of RTE foods, all while extending shelf life and ensuring food safety. These technologies make it possible for consumers to enjoy fresh, wholesome meals with minimal preparation.

At the same time, advancements in packaging⁷ have made convenience foods more sustainable and consumer-friendly. The rise of microwave-safe, biodegradable, and recyclable packaging reflects a growing commitment to both convenience and environmental responsibility. Ecoconscious consumers now strongly favour brands that use compostable trays, plant-based materials, sugarcane pulp, or bamboo fiber over traditional plastic packaging. These innovations not only reduce environmental impact but also support broader sustainability targets.

In response to increasing consumer awareness of environmental issues, many companies are transitioning to recyclable, biodegradable, or compostable materials, actively reducing their carbon footprint and packaging waste. This shift also enhances brand image, with sustainability becoming a competitive differentiator in the food market.

Moreover, packaging innovations are not limited to materials. **Technology integration**, such as **QR codes**, is reshaping how consumers interact with products.⁸ A simple scan gives access to **nutritional information**, **ingredient sourcing**, **preparation tips**, and even sustainability certifications enhancing transparency and consumer trust.

Finally, the rise of **online grocery platforms and delivery services** has increased the accessibility of RTE meals. Packaging is now being optimized for e-commerce lightweight, durable, and temperature-resistant solutions are key to preserving quality from distribution to doorstep.

Together, these technological advances are making convenience foods more sustainable, nutritious, and aligned with modern consumer expectations supporting a more resilient and responsible food system.

- Remaining challenges

Several barriers could hinder the growth of convenience foods, notably the rising cost of living. As budgets tighten, consumers may be less inclined to spend on convenience products, especially

https://www.gsluk.org/insights/news/QR-codes-forge-link-between-consumer-demand-and-product-transparency

⁶ Fadiji, Tobi, and Pankaj B. Pathare. 2023. "Technological Advancements in Food Processing and Packaging" *Processes* 11, no. 9: 2571. https://doi.org/10.3390/prl1092571

⁷ Meti, S. C., Vyshnavi, A., Patil, P., Khayum, A., Siddiqua, A., Shekar, R. R., & Kaur, R. (2024). <u>Advancements in fruit packaging technology: A review</u>. *Plant Archives*, 24(2), 139–152.

⁸ Pengfei Li, Jingjie Yang, Ana M. Jiménez-Carvelo, Sara W. Erasmus, Applications of food packaging quick response codes in information transmission toward food supply chain integrity, Trends in Food Science & Technology, Volume 146, 2024, 104384, ISSN 0924-2244, https://doi.org/10.1016/j.tifs.2024.104384.

⁽https://www.sciencedirect.com/science/article/pii/S0924224424000608)

QR codes forge link between consumer demand and product transparency. 22 March 2024.





when fresh produce and home-cooked meals are perceived as more economical and healthier options.

Health concerns also present a significant challenge. Many consumers associate convenience foods with poor nutritional value, the presence of preservatives, and high levels of undesirable ingredients such as sugar, salt, and unhealthy fats. These concerns are among the top reasons why some consumers choose not to purchase convenience products, highlighting the need for healthier formulations and greater transparency in ingredient sourcing.

RTE fruits and vegetables offer convenience and health benefits, but they also raise important food safety concerns, from microbial contamination, cross-contamination, inadequate handling, improper storage, chemical residues, extended shelf-life risks.⁹

4. The Rise of Ready-to-Eat F&V: Unlocking entrepreneurial opportunities

Once considered a niche market, ready-to-eat (RTE) fruits and vegetables are now at the forefront of a global shift toward healthier and more convenient meal solutions. This transformation presents a dynamic and expanding arena for entrepreneurs particularly in the Global South where food systems are rapidly evolving and demand for accessible, nutritious options is growing.¹⁰

Entrepreneurs can seize this momentum by developing packaged, pre-cut, and portion-controlled produce tailored to the needs of office workers, students, and busy households. From neatly sliced mangoes to colourful vegetable snack trays, the opportunities for product innovation and diversification are vast. Packaged fruit and veggie snacks can be effectively merchandised for school or home office snacks, all-day grazing or even after-dinner nibbling in an era in which plant-based eating is on-trend.¹¹

RTE fruits and vegetables are naturally aligned with wellness trends, offering high-fiber, low-calorie, and nutrient-rich alternatives to processed snacks. Entrepreneurs can tap into the health-conscious market by promoting their products as part of a balanced lifestyle, incorporating organic ingredients, and clearly displaying nutritional information on packaging. In regions facing a rise in non-communicable diseases such as sub-Saharan Africa and South Asia this trend also aligns with public health priorities, opening doors to partnerships with governments and NGOs.¹²

Value addition is a particularly compelling entry point for entrepreneurs. Through simple yet impactful processes like washing, cutting, and packaging, raw produce can be transformed into higher-margin products. Further opportunities include drying, juicing, or pickling cosmetically imperfect but nutritionally viable produce helping to reduce post-harvest losses and combat food waste. Such strategies not only generate new revenue streams but also contribute to more sustainable and inclusive food systems. Social enterprises, in particular, can amplify impact by sourcing directly from smallholder farmers and building equitable supply chains.

⁹Biomérieux. Ready to Eat Food Microbial Detection and Quality Control. 5 February 2024.

EU food safety legislation for ready-to-eat food focuses on preventing Listeria monocytogenes contamination, with stricter regulations now in place. Regulation (EU) 2024/2895, which amends Regulation (EC) No 2073/2005, introduces stricter microbiological criteria for Listeria in ready-to-eat foods that can support the growth of the bacteria. This regulation, effective from July 1, 2026, aims to ensure consumer safety while facilitating official controls. Regulation - EU - 2024/2895 - EN - EUR-Lex

¹⁰ The Food Industry Association released <u>The Power of Produce 2025</u>. https://theshelbyreport.com/2025/03/07/fmireport-social-media-e-commerce-boost-produce-

 $consumption \slashed{20} the \slashed{20} Tood \slashed{20} Industry \slashed{20} Association, and \slashed{20} Tood \$

¹¹ The Food Industry Association released *The Power of Produce 2025*

¹² Thomas Reardon, David Tschirley, Lenis Saweda O. Liverpool-Tasie, Titus Awokuse, Jessica Fanzo, Bart Minten, Rob Vos, Michael Dolislager, Christine Sauer, Rahul Dhar, Carolina Vargas, Anna Lartey, Ahmed Raza, Barry M. Popkin, The processed food revolution in African food systems and the double burden of malnutrition, Global Food Security, Volume 28, 2021, 100466, ISSN 2211-9124, https://doi.org/10.1016/j.gfs.2020.100466 (https://www.sciencedirect.com/science/article/pii/S2211912420301206)





Investments in food processing and sustainable packaging technologies such as vacuum sealing, modified atmosphere packaging (MAP), and biodegradable trays can significantly extend shelf life and enable regional or even international distribution. Entrepreneurs adopting these innovations can stand out in terms of product quality, safety, and environmental responsibility. Meanwhile, digital tools like QR codes offer added value through traceability, nutritional transparency, and recipe suggestions—enhancing consumer trust and engagement.

The growth of e-commerce, mobile applications, and food delivery services has also transformed the way RTE products reach consumers. Entrepreneurs can capitalize on these trends through online grocery platforms, health-focused mobile apps, or subscription-based models that target urban, tech-savvy customers. In rural and peri-urban contexts, innovative last-mile distribution channels such as local kiosks or community delivery networks can expand reach and impact. Social media remains a cost-effective and powerful tool for marketing and community engagement, especially among health-conscious younger demographics.

Finally, regional integration initiatives like the African Continental Free Trade Area (AfCFTA) unlock new export opportunities. Entrepreneurs in the Global South can explore cross-border trade in RTE products such as tropical fruit cups or vacuum-packed cassava fries offering culturally resonant, convenient options to regional buyers and diaspora communities. With growing global interest in ethnic and exotic ready-to-eat foods, these offerings also hold strong potential in international markets.

In summary, the RTE fruits and vegetables sector represents a fertile ground for entrepreneurship combining consumer demand, health trends, technological innovation, and trade opportunities. With the right strategies, entrepreneurs can not only build successful businesses but also contribute meaningfully to healthier diets and more resilient food systems.

5. Way forward

The Ready-to-Eat (RTE) food market is undergoing a dynamic transformation, driven by consumer demand for health, sustainability, and convenience. As manufacturers innovate and respond to these evolving preferences, the RTE sector is poised for continued growth offering a diverse array of choices that align with modern lifestyles. From healthier formulations and eco-friendly packaging to globally inspired flavors, the future of RTE products is promising and reflective of shifting consumer values.

With ongoing advancements in food technology and a heightened focus on wellness and environmental impact, RTE foods are no longer just a trend they represent a transformative movement in the food industry. As convenience continues to be a key driver, the RTE revolution is set to redefine how we eat and live in today's fast-paced world.

The ready-to-eat fruits and vegetables segment, in particular, presents a compelling opportunity for entrepreneurship especially in developing regions where agriculture plays a central economic role. With the right mix of innovation, technology, and sustainability, entrepreneurs can create scalable ventures that address consumer demand, reduce food waste, and generate inclusive economic opportunities across the value chain.

To successfully enter and scale within the RTE market, entrepreneurs need a comprehensive set of capabilities including market research, product development, sustainable sourcing, logistics, investment in packaging and labelling, quality assurance, regulatory compliance, and strong development partnerships.





6. Promoting increased knowledge about the fruit and vegetable industry

In the context of the UN 2021 International Year of Fruits and Vegetables, the COLEAD¹³ through its FFM SPS and FFM Plus programmes (funded by the EU and OACPS) and the OECD Fruit and Vegetables Scheme¹⁴ of the Trade and Agriculture Directorate launched an online series highlighting the significance of the fruit and vegetable sector and its various dimensions.

The main objectives of the series are:

- Sharing knowledge of markets and operators working in local and export fruit and vegetable markets
- Understanding the fruit and vegetable sector contribution to sustainable production and consumption
- Promoting fruit and vegetable contribution to healthy and nutritious diets
- Showcasing successes and innovations of private sector operators across the European Union and Southern countries and lessons learned.

¹⁴ OECD Fruit and Vegetables Scheme promotes international trade through the harmonisation of implementation and interpretation of marketing standards. https://www.oecd.org/agriculture/fruit-vegetables/.

¹³ As a private sector (not-for-profit) organisation, COLEAD's purpose is to support activities that aim to increase the agricultural sector's contribution to achieving the Sustainable Development Goals. https://www.colead.link/.





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Agenda

Moderator: José Brambila-Macias, Programme Manager, Trade and Agriculture Directorate, Agricultural Codes and Schemes, OECD

9:00-9:10 Welcome and introduction: Isolina Boto, Head of Networks and Alliances COLEAD; José Brambila-Macias, OECD

9:10-9:30 The Rise of RTE Fruits and Vegetables: Market Trends, Policies and Legislation

- Antoine Michotte Renier, Expert, F&V Regulations & Standards, European Commission (AGRI)
- Egle Baecke-Eimontaite, Director Advocacy & Regulatory Affairs, Freshfel Europe

9:30-10:00 Views from operators: Opportunities and challenges in the RTE sector

- Fleur De Wit, Senior Sustainability Manager, Blue Skies Holding Ltd, United Kingdom
- Bertille Marcos, CEO, Les Fruits Tillou, Benin
- Salvatore Antonio, Chairman of the Board of Directors, OP OASI, Italy

10:00-10:20 Q&A session

10:20-10:30 Conclusion and way forward: Isolina Boto, Head of Networks and Alliances, COLEAD



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