

NUTFRUIT®

THE VOICE OF THE INC FOUNDATION FOR THE NUT AND DRIED FRUIT WORLD

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**NUTS 2025:
WHERE WE ARE AND WHERE WE ARE GOING**

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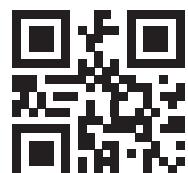
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Together Toward a Healthier, More Sustainable Future

ASHOK KRISHEN

INC CHAIRMAN



As we approach the end of the year, it's a fitting time to take stock of the nut and dried fruit industry. We are operating in a world that is increasingly complex marked by climate uncertainty, shifting geopolitical dynamics, and evolving consumer expectations. These forces are reshaping how we grow, trade, and position our products.

In October, the INC Executive Committee came together for a full-day strategic session to reflect on these challenges and set the direction of the INC for the years ahead. It was a valuable opportunity to assess the current landscape of where we are and where we need to go. I want to thank my fellow committee members for their dedication to our organization and their insightful contributions to shaping a roadmap that reflects both the realities we face and the ambitions we share. The discussions were rich, forward-looking, and grounded in a deep commitment to the long-term health of our sector.

Trade barriers and tariff uncertainty continue to shape our landscape. The nut and dried fruit industry is inherently global, with supply chains that span continents and markets that depend on open, predictable trade. Recent times have shown how quickly tariffs and regulatory shifts can disrupt flows and create imbalances. As an industry, we must remain vigilant and engaged—working to ensure that trade remains fair, transparent, and conducive to growth.

Sustainability is no longer optional, it's essential to the future of our industry—and the right thing to do for our future generations. Climate volatility has become a daily operational challenge, and given our dependence on stable growing conditions, we are particularly exposed. While our industry has shown remarkable resilience, resilience alone is not enough. Regulatory frameworks, market dynamics, and consumer expectations are evolving rapidly, and sustainability is becoming a decisive factor in purchasing decisions. But with that exposure comes a clear opportunity to lead.

This October, at the INC headquarters, we officially launched the INC Sustainability Certification, a milestone initiative that sets a benchmark for responsible practices across the value chain and rewards businesses committed to sustainability. I encourage all INC members to adopt the INC Sustainability Certification as we work together to build a more future-ready, responsible industry, while providing significant value to our membership by differentiating their offering to their customers.

Despite these challenges, the fundamentals of our industry remain strong. Global demand for healthy, natural foods continues to rise, and nuts and dried fruit are increasingly recognized for their nutritional value and versatility. Consumers are not only seeking better-for-you options—they are looking for products that align with their values: sustainability, transparency, and quality. Our industry has the potential to meet these expectations in full.

This is why it is more important than ever to ensure that the health benefits of our products are formally recognized. The scientific evidence demonstrating the positive role of nut consumption in a healthy diet is both robust and expanding. At NUTS 2025, a recent gathering of the world's leading health researchers at the INC headquarters, discussions included the pursuit of a health claim and advocating for updates to dietary guidelines related to nut consumption. Building on this momentum, the INC remains committed to ensuring that the scientifically based health benefits of nuts are acknowledged worldwide.

As we look ahead, our focus must remain on resilience, relevance, and responsibility. The INC will continue to support the sector, set the agenda, and champion growth in consumption, free market access, sustainability, health claim, innovation & other initiatives that drive the growth of our sector. Together, we can ensure that the nut and dried fruit industry not only adapts to change, but shapes a healthier, more sustainable future.

Kind regards,



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Charting the Road Ahead: The INC's New Strategic Direction

GORETTI GUASCH
INC EXECUTIVE DIRECTOR

The end of the year is always a fitting moment to reflect on our collective achievements and look ahead to the opportunities before us. While 2025 has brought its share of challenges, it has also demonstrated the resilience and innovation that define our industry. With this spirit in mind, I am pleased to share the INC's new strategic direction and goals for the years ahead.

In October, the INC Executive Committee met for its Strategic Planning Meeting. Our conversations centered on three priorities: expanding consumption and market access, strengthening the scientific recognition of the health benefits of nuts and dried fruit, and leading the industry's global sustainability agenda. Together, these focus areas form the foundation of our new strategic goals—a roadmap designed to drive sustainable growth and set the agenda for the global nut and dried fruit industry.

At the heart of this new direction lies our refreshed mission: *to drive sustainable and innovative growth in the consumption and supply of nuts and dried fruit worldwide by promoting their health benefits and natural goodness*. This mission underpins every facet of our strategy, guiding our work to ensure a responsible future for our sector.

INC's Strategic Goals

1. Increase Global Consumption and Market Access

Maintaining a healthy balance between supply and demand remains a top priority for our sector. Therefore, to drive growth and promote daily consumption of nuts and dried fruit, the INC will continue its successful multi-country dissemination plan in China, India, and Latin America. At the same time the INC will be expanding to the strategically important region of Southeast Asia with a brand-new, tailored strategy. Future outreach to the MENA region and Eastern Europe is also being considered. And, these efforts will continue to focus on engaging Gen Z, who will remain the largest consumer group through to 2030. In parallel, through the Country Outreach Program, the INC will continue to advocate for free trade by engaging with governments and international organizations to promote policies that support open markets and greater global access.



2. Obtain a Health Claim and Update Dietary Guidelines

As INC Chairman Ashok Krishen noted on the previous page, scientific validation of the health benefits of nuts and dried fruit is essential to the long-term growth of our industry. Building on the momentum of the NUTPOOL project, a key first step toward securing a health claim, the INC is pursuing new initiatives, including a clinical trial, to further strengthen scientific evidence. These efforts aim not only to substantiate the health claim but also to support updates to dietary guidelines worldwide, reinforcing the role of nuts in daily nutrition and driving greater global consumption.

3. Pioneer and Advance Sustainable Practices

Sustainability is central to the future of our industry. The INC Sustainability Institute aims to serve as the global hub for pioneering and advancing sustainable practices across the nut and dried fruit sector. Through the Institute, we are driving initiatives such as the Data Hub, which equips members with valuable insights to assess and enhance sustainability performance, along with the INC Certification programs and financial services that help bring sustainable projects to life. Together, these actions are advancing sustainable practices to position the nut and dried fruit industry as a global leader in sustainability.

Our new strategic goals reflect a clear vision for growth, responsibility, and impact. As we embark on this next chapter, I want to extend my sincere gratitude to all INC members for your continued support and dedication. Together, we will continue to shape a stronger, more sustainable future for the global nut and dried fruit industry.

SURPRISINGLY SNACKABLE PECANS



Perhaps you know pecans as the festive flavor that shines in holiday baking, but this native nut's buttery taste, versatility and nutritional properties make them surprisingly snackable all year round!

MORE THAN MEETS THE PIE

When you choose pecans as a snack, you get the health benefits you're looking for without giving up the natural sweetness you crave.

THE NUT IN NUTRITIOUS

ANTIOXIDANTS

Antioxidants are substances found in food that can protect against cell damage. Pecans have some of the highest levels of antioxidants among common tree nuts, particularly gamma tocopherol, a unique form of vitamin E.¹

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REFERENCES

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- 2 USDA: Phytonutrients: <https://www.nal.usda.gov/human-nutrition-and-food-safety/food-composition/phytonutrients>
- 3 USDA: Dietary Guidelines for Americans 2020-2025 https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf
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Serving size = 1 ounce or about 19 halves

DV = % Daily Value

Source: USDA National Nutrient Database for Standard Reference

*Scientific evidence suggests but does not prove that eating 1.5 ounces per day of most nuts, such as pecans, as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease.





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INC Chairman Ashok Krishen Honored With VINACAS Heritage Award at 14th Golden Cashew Rendezvous

The 14th VINACAS Golden Cashew Rendezvous took place in Hanoi, Viet Nam, from October 27-29, 2025. Organized by the Vietnam Cashew Association (VINACAS), the event brought together delegates from dozens of countries across the globe. The INC was represented at the event by Chairman Ashok Krishen, who delivered a special address during the opening ceremony. In his presentation, Mr. Krishen provided an overview of the INC's mission and strategic goals, as well as a statistical snapshot of the global tree nut industry, with a particular focus on cashews. The program of the event also included sessions on cashew production, business strategies, and quality, food safety, and hygiene, alongside a gala dinner celebrating the association's 35th anniversary.

In a highlight of the event, Mr. Krishen was awarded the prestigious VINACAS Heritage Award 2025, recognizing his outstanding leadership, dedication, and innovative contributions to advancing the global cashew industry and promoting sustainable development across the value chain. The award ceremony took place on October 28 in the presence of the VINACAS Board of Standing Executive Members and distinguished guests from the cashew industry. Mr. Krishen also shared a short video message offering reflections and insights for both the Vietnamese and international cashew sector. The INC congratulates Mr. Krishen on this well-deserved recognition and celebrates his invaluable contributions to the global nut and dried fruit industry. ■



Photo: VINACAS

Ferrero Completes Acquisition of WK Kellogg

WK Kellogg Co is now a wholly owned subsidiary of the Ferrero Group. The acquisition was previously announced in July and approved by WK Kellogg Co shareowners in September. With the completion of the transaction, WK Kellogg Co shareowners are entitled to receive US\$23.00 in cash for each share of WK Kellogg Co common stock they owned immediately prior to the closing. WK Kellogg Co has ceased trading and will no longer be listed on the New York Stock Exchange. WK Kellogg Co was formed in 2023 after the Kellogg Company split into two entities, with the snacks business becoming Kellanova and the North American cereal business becoming WK Kellogg Co. The acquisition supports Ferrero's plan for strategic growth in North America. Ferrero plans to invest in and grow WK Kellogg Co's iconic portfolio of brands across the United States, Canada, and the Caribbean. ■



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- Vertically integrated organisation, bringing hazelnuts from the orchard, directly to global markets
- Providing highest quality hazelnut products backed with outstanding food safety

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KP Nuts Launches On-Pack Promo Featuring Darts Champion Luke Littler

KP Nuts has launched a new UK-wide prize promotion that will allow one lucky venue to host a darts night with world champion Luke "The Nuke" Littler. With darts ranking in the top 10 most-watched sports in UK pubs, and over half of pubs boasting a dartboard, the "Nuts for Darts" campaign is combining the country's love of darts and nuts. For a chance to win, pubs simply need to purchase a promotional KP Nuts pub card pack, scan the on-pack QR code, and enter their details. Four runners-up will also win a full year's supply of KP Nuts. The promotion builds on an existing partnership between KP Nuts and Littler, who became the youngest person ever to win the PDC World Darts Championship while wearing the KP Nuts logo on his sleeve. ■

Nestlé's New Cocoa Innovation Promises Less Waste and More Yield

Nestlé has unveiled a patented technique that could transform how chocolate is made by using up to 30% more of the cocoa fruit—including pulp and husk—without affecting its signature flavor. The innovation aims to reduce waste while helping cocoa farmers increase yields and income, offering a potential response to climate change-related cocoa shortages. With global cocoa prices more than double their 2023 levels, the industry is under mounting pressure from droughts and declining harvests in key producing regions. In 2024, *Food & Wine* reported that chocolate prices had reached a 47-year high due to poor yields, prompting producers to announce price increases. Nestlé's new process could help improve sustainability by maximizing the use of the cocoa fruit—a "groundbreaking" step toward a more efficient and resilient chocolate supply chain. ■

Dubai Chocolate Trend Expands Into Innovative New Formats



Photo: Shawarma Press



Photo: Tiff's Treats

The viral Dubai chocolate trend—known for its luxurious mix of pistachio, chocolate, and kataifi—is taking on new forms. US-based Shawarma Press and Tiff's Treats are the latest brands to put their spin on this Middle Eastern-inspired indulgence. The Mediterranean fast food chain Shawarma Press has unveiled its Dubai Chocolate Pistachio Ice Cream, blending homemade pistachio ice cream with crispy kataifi and a rich chocolate drizzle. Meanwhile, cookie delivery pioneer Tiff's Treats has launched Dubai Chocolate Filled Cookies, filled with gooey pistachio cream and kataifi and topped with chopped pistachios. Both launches highlight the growing influence of pistachios in premium desserts and underscore how Middle Eastern flavor traditions are inspiring brands to create new, globally inspired sweets. ■

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SAMIN NOSRAT

CHEF, FOOD WRITER, TV HOST
USA

Samin Nosrat is a chef, teacher, and author of the bestselling book *Salt Fat Acid Heat*. She was named one of *Time* magazine's 100 Most Influential People in 2019. She is the co-host of the *Home Cooking* podcast, a former columnist at the *New York Times Magazine*, and the host of the Netflix documentary series based on *Salt Fat Acid Heat*. She learned to cook in the kitchen of Chez Panisse—ground zero of California cuisine—started by chef Alice Waters. She pursues her twin passions of food and words with equal vigor, aiming to create work that inspires and builds community. Samin's new book, *Good Things*, is a compendium of her most useful and beloved everyday recipes.

You write in *Good Things* that people have learned to expect the wrong things from recipes. Can you set us right?

Somewhere along the way, we started thinking of recipes as definitive rulebooks that we need to follow to the letter in order to produce the exact same result every time. There are endless variables in cooking—you can make the same recipe in three different kitchens and get three different results. But that doesn't mean a recipe is useless! A recipe is just a guide, a little map to help get you somewhere delicious. If something in the recipe doesn't quite fit—your tomatoes are sweeter, your oven has a super-hot corner, your grandma always used lemon juice—that's just your version of the dish. The recipe should give you confidence, not take it away!

How do you think about the difference between professional cooking and home cooking?

It took me a while to fully unplug my chef brain. Professional cooking is largely about consistency and efficiency: cooking the same dish a hundred times a night, under time pressure, with a

whole team of people depending on you. At home, the stakes are much different: your own nourishment and enjoyment. I use whatever I've got on hand, taste as I go, let my sauce simmer a little longer because it smells so good on the stove. There is no standard to chase, I'm just trying to bring joy to my dinner table.

You write that, in the kitchen, creativity doesn't necessarily mean innovation. Can you elaborate?

I think we can be creative in the kitchen without creating anything brand new. Creativity can be simple. If you find a new way to use your favorite sauce or add a few teaspoons of a spice to make the perfect breadcrumb, that's being creative. We put a lot of value on what's completely new, when shifting small choices can breed creativity too. Maybe it's swapping in whatever herbs you have on hand, folding last night's leftovers into something new, or even just noticing how much better your beans taste with a squeeze of lemon.

You describe time as "the one thing I can't restock or replace" and cooking as

"a vessel for both time and attention." How did time become a throughline of the book?

When I use a recipe to make a dish for myself or someone I love, it's a fulfilling way to spend time. The book's title comes from a Raymond Carver quote: "Eating is a small, good thing in a time like this." Even when things are going haywire, I find cooking and sharing meals a vital use of time. And I wanted to honor that in *Good Things*.

In *Salt Fat Acid Heat*, you articulated a unified theory of cooking based on the four titular elements. Where do nuts and dried fruits fit into this scheme?

Nuts and dried fruits are about flavor and texture, interacting with all four elements in interesting, fun ways. Salt brings out their depth, fat rounds out their flavors, acid can brighten them, and heat transforms them. They're versatile little powerhouses. You can sprinkle them on a salad, blend them into a sauce, or toast them for a dessert, and do what you need them to do in your dish depending on how you prepare them.

Let's say my pantry is well stocked with nuts. How would you advise me to put them to use?

Toast them. Toasted nuts are the perfect salad garnish, yogurt topping, and always nice to have on hand to sprinkle on top for a bit of crunch.

What about dried fruits?

I love adding dried fruits such as dates, prunes, or raisins to savory dishes. I'll tear dates into a shaved fennel or chicken salad, or sauté them in a little butter to add to adas polo, or Persian lentil rice. I'll soak prunes in white wine to rehydrate them, then add them to my Thanksgiving dressing for a punch of sweetness and acid. I also love adding dried fruit into braises. ■

QUICK-FIRE ROUND!

What is your personal favorite dish that incorporates nuts or dried fruits?

Alice Medrich's Dried Fruit and Nut Cake.

What nuts or dried fruits are a must-have in your home kitchen?

Dried apricots and prunes from Andy's Orchard in Morgan Hill are my be-all and end-all! Also, Medjool dates, currants and raisins, almonds, pistachios, and pecans!

If Netflix asks you to do a show about nuts and dried fruits, will you say yes?

Absolutely! Can you imagine the trips we could take?!

Chicken Braised With Dried Apricots and Harissa

For the tebil (Tunisian spice blend):

- 2 tbsp ground coriander
- 1 ¼ tsp turmeric
- ½ tsp caraway seeds, ground
- ¼ tsp freshly ground black pepper

For serving:

- Cilantro leaves
- Steamed couscous
- Labne
- A green sauce such as salsa verde or chimichurri

For the chicken:

- 8 bone-in, skin-on chicken thighs
- Kosher salt
- 2 tbsp mild harissa paste
- 3 tbsp ghee
- 1 yellow onion, thinly sliced
- 2 carrots, peeled and cut diagonally
- 8 garlic cloves, peeled and left whole
- 1 cup crushed tomatoes
- 1 cup chicken stock or water
- 2 bay leaves
- Small handful of cilantro stems
- 1 cup dried apricots, halved
- 1 tsp ground cumin

To make the tebil, in a small bowl, stir together the coriander, turmeric, caraway, and pepper.

The day before you plan to cook, season the chicken generously on both sides with kosher salt. In a medium bowl, mash together the harissa paste and about half of the tebil. Add the chicken and use your hands to evenly coat it all with the spiced harissa paste. Cover and refrigerate overnight, then bring to room temperature before cooking.

Adjust an oven rack to the center position and preheat to 375°F / 190°C.

Set a large skillet over medium-high heat and add the ghee. When the fat shimmers, add the onion, carrots, and garlic. Season lightly with salt and sprinkle in the remaining tebil, then reduce the heat to medium and cook, stirring occasionally, until the onions are tender, translucent, and just beginning to take on color, about 12 minutes.

Add the tomatoes and chicken stock and stir to deglaze, then let the mixture return to a boil.

Transfer the vegetable and tomato mixture into a baking dish and layer in the bay leaves and cilantro stems. Arrange the chicken thighs, skin-side down, atop the bed of aromatics, then nestle the dried apricots around the chicken. The braising liquid should come about halfway up the sides of the chicken. Lay a piece of parchment atop the chicken, then seal the baking dish tightly with aluminum foil.

Transfer to the oven and cook until the chicken is completely tender and shows no resistance when pierced with a sharp knife, about 1 ½ hours. Adjust the oven rack to the highest position and increase the oven temperature to 425°F / 220°C. Remove the foil and parchment from the baking dish and flip the chicken thighs over so that they sit skin-side up. Sprinkle the cumin into the braising liquid.

Return the baking dish to the oven and cook the chicken until the liquid is nicely reduced and the skins are crisp and golden brown, 18 to 20 minutes longer.

To serve, use tongs to gently arrange the chicken in a rimmed serving dish. Discard the bay leaves and cilantro stems. Taste and adjust the seasoning of the braising juices with salt as needed, then spoon the dried apricots and braising juices over the chicken. Garnish with cilantro and serve with steamed couscous, labne, and a green sauce.



Photos by Aya Brackett.

Trade

USA: Tariffs on Goods From India Rise to 50%

New tariffs introduced by the US on imports from India took effect on August 27, 2025. US President Donald Trump signed an executive order on August 6 that introduced an additional 25% duty on Indian goods entering the US, in retaliation for India's purchases of Russian oil. This new duty, combined with an earlier 25% tariff announced by the US in late July, brings the total US tariff rate on Indian goods to 50%.

INDIA: Government Cuts Taxes on Nuts and Dried Fruits to Boost Consumption

India has lowered taxes on the consumption of nuts and dried fruits from 12% to 5%, effective September 22. As reported by CNBC, the reduction is part of a broad overhaul of the country's Goods and Services Tax (GST) aimed at boosting domestic consumption amid rising US tariffs on Indian exports. Under the new GST system, the previous four-tier structure has been simplified into two rates: a standard 18% rate and a merit 5% rate. Several categories of nuts and dried fruits (CN codes 0801, 0802, 0804, 0813, 2008) now benefit from the lower 5% tax.

EU: Tariff Proposal, 0% on US Dried Fruits and Quota for Tree Nuts

On August 28, the European Commission proposed eliminating tariffs on select US dried fruits and introducing tariff rate quotas (TRQs) for US tree nuts, following an EU-US joint statement on August 21. The proposal sets 0% customs duty for dried sultanas, dried grapes excluding currants and sultanas, dried apricots, prunes, cranberries, and other dried fruits, while establishing TRQs for almonds, hazelnuts, walnuts, pistachios, macadamias, pine nuts, and pecans with a 500,000 MT in-quota volume. Quotas would run for 12-month periods starting from the date of entry into force of the regulation. The proposal requires approval from the European Parliament and Council before it can enter into force.

CHINA: Anti-Dumping Investigation Into Pecans From the US and Mexico

On September 25, China's Ministry of Commerce initiated an anti-dumping investigation into pecans imported from the United States and Mexico, as reported by Reuters. According to the ministry, preliminary evidence showed exports at below-normal prices. Mexico's economy ministry has affirmed that all its trade decisions compile with WTO maximum tariff limits. The investigation is scheduled to conclude by September 25, 2026, though a six-month extension is possible under special circumstances.

USA-CHINA: Trump Cuts China Tariffs to 10% After Xi Summit

As reported by Reuters, US President Donald Trump announced the United States will lower tariffs on Chinese goods from 20% to 10% following talks with Chinese President Xi Jinping in South Korea. According to Trump, the summit produced several key agreements, including China's commitment to begin large-scale purchases of US soybeans and other agricultural products immediately. The two leaders also reached a one-year deal on rare earths, which Trump said would be extended.

TÜRKİYE: Some Tariffs on US Imports, Including Tree Nuts, Eliminated

On September 22, Türkiye announced that it had terminated retaliatory tariffs imposed in 2018 on certain US imports. The presidential decision published in Türkiye's official gazette repealed the original order from 2018, which had imposed a 10% retaliatory tariff on tree nuts from the US.

USA: Trump Allows Tariff Exemptions for Some Nuts Under US Trade Deals

On September 5, Donald Trump signed an executive order allowing tariff exemptions for certain nuts under trade deals with the US. The order includes an annex listing products that cannot be sufficiently produced domestically to satisfy domestic demand, covering Brazil nuts, cashews, macadamias, and pine nuts. For countries with reciprocal trade deals, the Secretary of Commerce and U.S. Trade Representative can grant zero-percent tariffs on these products without additional executive orders.

MERCOSUR-EU: Trade Deal Sent to Council for Formal Adoption

As of October 2025, the European Union's trade agreement with Mercosur is advancing through the EU legislative process. On September 23, the European Commission submitted the EU-Mercosur Partnership Agreement (EMPA) to the Council for formal adoption. The proposal includes two legal instruments: the EMPA itself and an interim trade agreement (iTA). According to AP, the EU's executive arm has unveiled measures to protect European farmers from being undercut by imports from South America. Under the proposals, investigations would be triggered if import prices from Mercosur are at least 10% lower than the prices of the same or competing EU products.

INDONESIA: Negotiations Concluded on Free Trade Agreement With EU

In late September, Indonesia and the EU finalized negotiations for a Comprehensive Economic Partnership Agreement and an Investment Protection Agreement. According to a statement released by the EU, the agreement will remove import duties on 98.5% of tariff lines and simplify procedures on EU goods exports to Indonesia, including agri-food products.

Sustainability

EU: Parliament Adopts Negotiating Position on Simplified Sustainability and Due Diligence Rules

During the plenary session of November 13, Parliament adopted its negotiating position on simplified sustainability reporting and due diligence duties for businesses. Under the Parliament's position, sustainability reporting would be lighter and only necessary for larger companies (businesses employing on average over 1,750 employees and with a net annual turnover of over €450 million). Moreover, due diligence obligations would apply only to very large EU and non-EU corporations (corporations with more than 5,000 employees and a net annual turnover of over €1.5 billion). Transition plans would not be required to make business plans compatible with the Paris Agreement, and businesses would be liable at the national rather than EU level. Finally, a new digital portal would be established for businesses with free access to templates, guidelines and information on all EU reporting requirements. Negotiations with EU governments, which have already adopted their position on the file, began on November 18, with the aim of finalizing the legislation by the end of 2025.

EU: Implementation of Deforestation Regulation to Be Delayed Another Year

The European Commission intends to postpone the launch of its anti-deforestation law for another year, marking the second delay, according to Reuters. On September 23, the EU's Environment Commissioner told reporters that the postponement was necessary to address concerns about the readiness of information-technology systems needed to support the law.

EU: Adoption of the Voluntary Sustainability Reporting Standard for SMEs

In July, the European Commission adopted a recommendation on voluntary sustainability reporting for small and medium-sized companies (SMEs). The standard adopted is aimed at reducing administrative burden on SMEs by making it easier for them to respond to requests for sustainability information from large companies and financial institutions that are subject to mandatory reporting under the Corporate Sustainability Reporting Directive (CSRD).

USA: Disaster Assistance for Farmers

The U.S. Department of Agriculture announced in July that agricultural producers who suffered eligible crop losses due to natural disasters in 2023 and 2024 could apply for US\$16 billion in assistance through the Supplemental Disaster Relief Program (SDRP). To expedite the implementation of SDRP, the USDA's Farm Service Agency (FSA) is delivering assistance in two stages. This first stage is open to producers with eligible crop losses who received assistance under crop insurance or the Noninsured Crop Disaster Assistance Program during 2023 and 2024. At the time of writing this report, Stage Two, which addresses shallow, uncovered and quality losses was targeted to begin in October.

ITALY: 3D Imaging Sheds New Light on Hazelnut Development

Researchers in Italy have used X-ray micro-computed tomography to create detailed 3D maps of Tonda di Giffoni hazelnut development from flowering to early fruit. The non-destructive method tracks ovule and embryo growth, identifies abortive ovules, and measures reproductive structures, helping growers improve cultivar selection, yield, quality, and climate resilience. The study is open access: <https://doi.org/10.1038/s41598-025-17344-z>

Food Safety

INC Calls for Clearer EU Rules to Protect Trade

On October 14, the INC submitted its response to the European Commission's Call for Evidence on the Food and Feed Safety – Simplification Omnibus. The INC welcomed the Commission's initiative to streamline regulatory processes and reduce administrative burdens for food business operators. However, it emphasized the need for clearer and more harmonized interpretation of Regulation (EU) 2017/625, particularly Articles 66 and 67, which govern the management of non-compliant consignments.

The INC noted significant inconsistencies among Member States in applying official controls at border posts, especially regarding shipments exceeding aflatoxin limits. While some authorities permit re-dispatch or reprocessing under Article 66, others require destruction under Article 67, even for low-risk consignments. These differences result in unnecessary economic losses and increased food losses. Additional concerns raised include limited operator involvement in decision-making, varying practices in issuing RASFF alerts based on private testing, and unclear documentation requirements for re-dispatching goods to third countries.

The INC urged the Commission to ensure consistent application of the Official Controls Regulation, enabling proportionate, science-based decisions. Such clarity would safeguard consumer safety, minimize food loss, and promote fair trade across the EU.

EU: Nickel ML for Pecans Under Review

On October 1, the INC attended a joint FRUCOM-CEEREA event in Brussels, with officials from the European Commission's DG AGRI, DG SANTE, and DG ENV. One of the key topics addressed was the maximum level (ML) for nickel in pecans. The current limit, set at 3.5 µg/kg as of July 1, 2025, was established due to limited availability of data. Unlike other tree nuts, pecans lacked sufficient scientific evidence to justify a higher threshold. However, recently submitted datasets are now under review, aiming to support an increase to 10 µg/kg.

EU: Fosetyl Not Considered Endocrine Disruptor in Updated EFSA Review

The European Food Safety Authority (EFSA) published the conclusions of the peer review of the initial risk assessments for the pesticide active substance fosetyl. The conclusions were reached on the basis of the evaluation of the representative uses of fosetyl as a fungicide on grapes, citrus, and pome fruits. The conclusions from 2018 were updated with regard to endocrine disruption (ED) properties following a mandate received from the European Commission in October 2019.

With regard to the assessment of the ED properties, based on the available data and assessment, EFSA concluded that fosetyl does not meet the ED criteria for humans and non-target organisms according to points 3.6.5 and 3.8.2 of Annex II to Regulation (EC) No 1107/2009, as amended by Commission Regulation (EU) 2018/605.

MALAWI: Notifies WTO of Draft Nut Standards

In July, Malawi submitted four draft standards to the World Trade Organization covering raw and roasted cashew kernels, cashew butter, and peanut butter, detailing requirements, sampling, and testing for human consumption. 



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of performance
rooted in stewardship,
quality, and innovation.*



Trade Is Dominating All Conversations –and Nuts and Dried Fruits Are No Exception

JULIE ADAMS
CHAIR OF THE INC
SCIENTIFIC AND
GOVERNMENT AFFAIRS
COMMITTEE

Julie Adams is Vice President, Global Technical & Regulatory Affairs, at the Almond Board of California. Her responsibilities include developing strategies to address international trade policy and technical issues that impact worldwide shipments of California almonds. She chairs the Nut Processors Working Group of the European Snacks Association and is a member of the US Agricultural Technical Advisory Committee for Trade in Fruits & Vegetables.

Rising tariff tensions and technical barriers are adding new complexity to the global trade in nuts and dried fruits. This article examines the key issues shaping today's discussions and highlights how the industry is working together to navigate an increasingly challenging landscape.

Global trade in the nut and dried fruit sector is thriving largely due to production improvements, consumer economic development, and strong research that has increased the public's understanding of, and demand for, healthy nutritious foods.

Just how big is the global market for these products? It depends. The UN Comtrade estimates the value of the shelled and inshell nut trade (import/export) at US\$35 billion. Other market reports taking into consideration the broader consumer value put estimates of the global tree nut market at more than US\$50 billion and anticipate more than doubling by 2032.¹

Market dynamics are evolving. Production of tree nuts is largely concentrated in the United States, China, Türkiye, and Africa, but importing markets are shifting. The European Union has historically been a leading importer of nuts and dried fruit, but Asia is on the rise with economic growth and increasing consumer purchasing power. As Terrainag.com reported in their publication *The Big Shrink: "Tree nut exports follow population growth."* By way of example, as demographics and economic purchasing power have shifted, the proportion of US almond, pecan, pistachio, and walnut exports destined for Europe has decreased over the past 30+ years, while the share destined for Asia has increased.²

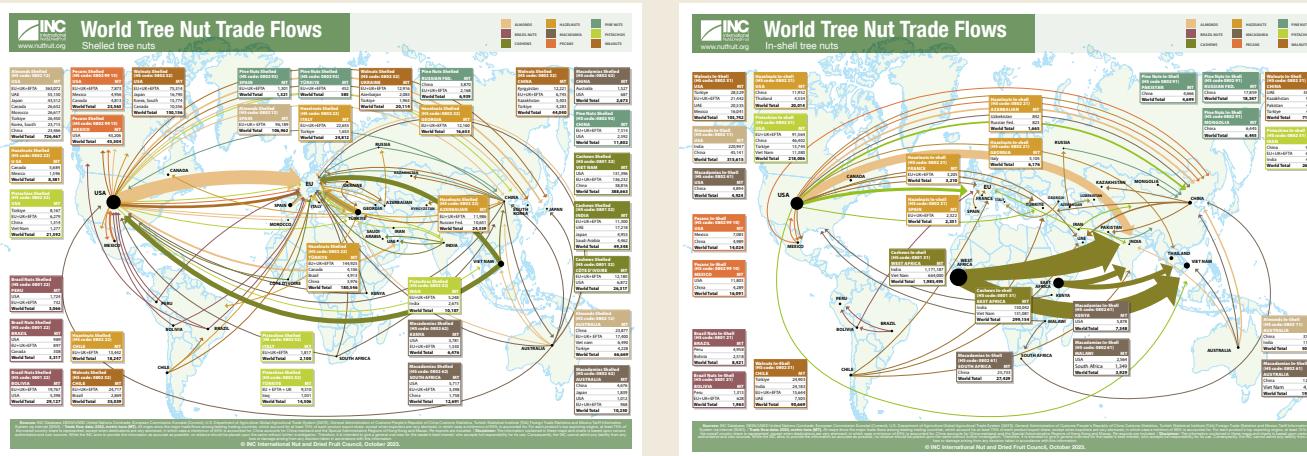
The nut and dried fruit sector is profoundly dependent on trade flows, as illustrated by the INC's biennial trade map series (Figure 1). Recent trade tensions have introduced incredible volatility in the supply chain. For both producers and importers, the current environment has demonstrated how essential it is to have a diversified supply chain.

Most of the focus is on tariffs, which are an issue for the nut and dried fruit sector in a number of countries. But more widespread and harder to resolve are often technical barriers including documentation, standards, and phytosanitary requirements. Digging deeper into

¹ Bothare, V. (2024, July). Tree Nuts Market Size Worth to Hit US\$138.96 billion by 2032. Straits Research. <https://straitsresearch.com/report/tree-nuts-market>

² Woolf, M., & Clark, M. (2025, April 15). A Nut Worth Cracking: Assessing Demographic Change for the Nut Market. Terrain. <https://www.terrainag.com/insights/a-nut-worth-cracking-assessing-demographic-change-for-the-nut-market/>

Figure 1.



Main global trade flows for tree nuts, shelled (left) and in-shell (right), 2023.
The full series of six trade maps is available in the INC Members' Area: <https://inc.nutfruit.org/members-area/statistics/>

“ Engagement, data, and partnership become the pillars of an effective strategy. ”

tariff and non-tariff issues often reveals a lack of understanding regarding how the trade is done, production practices, or, unfortunately, trust. This is where **engagement, data, and partnership** become the pillars of an effective strategy.

In 2024, the global trade of nuts and dried fruits involved around 70 producing countries. Trade of those commodities to more than 200 countries around the world creates a unique environment with common needs but complex interdependencies. Unfortunately, the value and importance of our sector is too often overlooked in broader trade negotiations, overshadowed by discussions focused on bulk commodities—corn, soybeans, dairy, etc.—which have longer-standing trade histories and significant economic impact. This is not to say nuts and dried fruits are not important—our sector is simply not “top of mind” for negotiators. If we are to be successful in addressing our concerns and not become collateral damage, **engagement** is essential.

So Many Issues, So Little Time
Negotiations on a number of issues are underway among a variety of trading partners. It is not all about tariffs: resolving long-standing technical issues is fundamental to smooth trade flows. Certificates of Origin, No Objection Certificates, grade requirements, reference pricing, contaminant levels, MRLs... sound familiar? All of these issues disrupt trade flows, often due to lack of harmonized standards or inconsistent application at the border.

Compelling, science-based **data** has been successfully leveraged to either adjust requirements or to find an *equivalent* approach that is consistent with industry practices. Recent efforts to gather data on heavy metals have

demonstrated why standards are or are not achievable for particular commodities or production regions. Without data, trying to argue for a change in standards will likely fail. Data also answer questions related to risk, which is the driving basis for standards. Does science always prevail? To think it does is naïve, but without science, the chances of success are considerably lower. As Mark Twain said: “The trouble with the world is not that people know too little; it’s that they know so many things that just aren’t so.”

Working Together

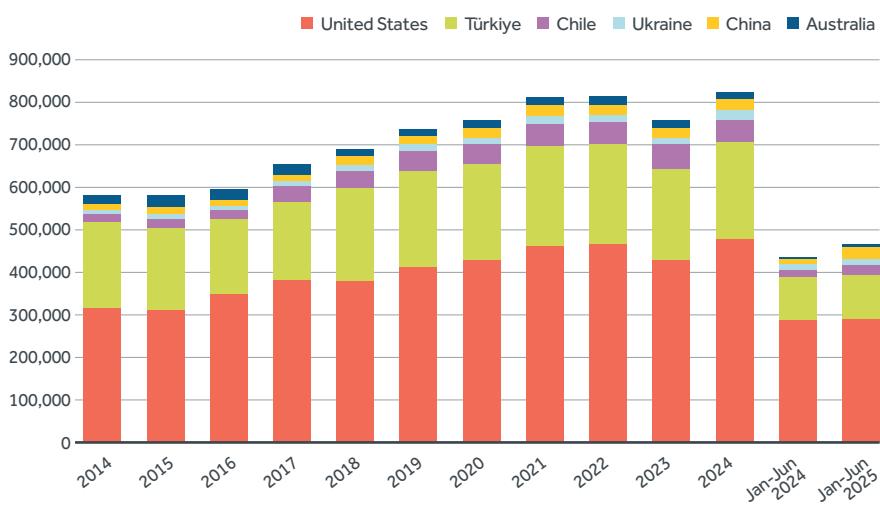
The INC has actively engaged through its participation in global organizations such as Codex, ensuring that standards for food in trade reflect the needs of producers and importers. Further collaboration at a direct association level, with partners in Türkiye, China, Europe, and the United States, creates awareness of the economic contributions of nut and dried fruit production and processing to the health of industry and consumers.

A clear example of how collaboration was leveraged, and successful, was evident during the US-EU bilateral trade negotiations. For the INC, leveraging US data and working with European associations FRUCOM and the European Snacks Association has been an essential and successful strategy in Europe. **Partnerships** amplify the needs of the sector and better demonstrate the benefits for imports and exports. The European Commission is more receptive to hearing how nut imports benefit value addition *in Europe*, creating more jobs, boosting economic returns, and fostering growth that also benefits local production. This strategy is multiplied through efforts at Member State levels—for example, the Association of the German Confectionery Industry (BDSI) speaking with German authorities about the size of marzipan production and need for imported almonds, or the Nut & Dried Fruit Trade Association (NDFTA) speaking to UK officials about peanut and tree nut snacking. Once adopted, the announced US-EU agreement will include a broad tariff rate quota (TRQ) with a 0% duty for US tree nuts, which account for more than half of the EU’s imports under the affected HS codes (Figure 2).

Figure 2.

EU Tree Nut Imports

(HS codes 0802 and 200819) from the top six origins (metric tons)



Source: USDA Trade Data Monitor.

Engaging With the Right Information

The current trade environment is particularly tense, creating more uncertainty. Agriculture is accustomed to the vagaries of mother nature, but human-made volatility puts even more pressure on commercial decisions and investments. **Engaging** with the right **data** and cultivating strong **partnerships** is a strategy that the INC is pursuing in close cooperation with, and on behalf of, producers and importers of the nut and dried fruit sector. ■

Hazelnut Integrity: New Tools for Verifying Origin and Cultivar

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Increased global demand for high-value hazelnuts has intensified the need for reliable authentication methods. As cultivar and geographic origin influence both quality and price, recent advances in lipidomic analysis and spectroscopy offer robust analytical tools to detect fraud and verify provenance.

Hazelnuts have long been valued for their cultural and economic importance. Whether used in fine chocolate, premium spreads, or enjoyed on their own, high-quality hazelnuts are increasingly valued not just for taste, but for their origin and cultivar identity. As a result, hazelnuts from specific cultivars and specific growing regions command higher prices thanks to their unique features and reputation.

With the rising demand, however, comes an increase in economically motivated fraud, such as mislabeling lower-cost nuts as premium varieties certified under a protected designation of origin (PDO) or protected geographical indication (PGI), or falsely attributing hazelnuts to regions or countries where prices are higher. Ensuring hazelnut authenticity has become a top priority for growers, processors, and consumers alike. Recent scientific advances are offering powerful new ways to tackle this challenge—combining lipidomic (fat) analysis and spectroscopy to accurately determine a hazelnut's identity.

The Lipidomic Approach: Lipid Fingerprinting to Uncover Hazelnut Cultivar and Provenance

Hazelnuts are primarily composed of lipids, which form a complex and distinctive composition within each nut. Scientists have discovered that these lipid fingerprints vary depending on both the cultivar and the geographical region where the hazelnut is grown. In a recent study¹ conducted by researchers from the University of Barcelona and the Institute of Agri-Food Research and Technology (IRTA) in Spain, over 300 hazelnut samples from Spain, Italy, Chile, and Georgia were analyzed to explore the potential of lipid fingerprints as effective tools for hazelnut authentication.

Triacylglycerols for Speed, Unsaponifiable Fraction for Accuracy: A Combined Strategy

The unsaponifiable fraction (UF) of hazelnuts, composed of minor compounds like sterols, hydrocarbons, and alcohols, is highly sensitive to both genetic and environmental factors. Using gas chromatography–mass spectrometry (GC-MS), researchers achieved over 94% accuracy in identifying hazelnut cultivars and 97% accuracy in determining their geographical origin, positioning UF fingerprinting as a reliable tool for official authentication. In contrast, triacylglycerols (TAG), the primary fats in hazelnut oil, provided a faster, though slightly less precise, alternative, with over 80% accuracy for both cultivar and origin. By combining these methods—using TAG for initial screening and UF only for confirmation of uncertain samples—the approach ensures both efficiency and over 90% accuracy, making it ideal for rapid, reliable authentication in large-scale operations.

The implications of lipidomic research extend far beyond academia, offering significant benefits to businesses in the hazelnut industry. Its application with

authentication purposes helps fight fraud by detecting mislabeled or adulterated batches, ensuring that only authentic products reach consumers. Additionally, it supports PDO/PGI claims, helping businesses meet legal standards for origin labeling and improving traceability by authenticating hazelnuts at every step of the supply chain. It also enables companies to justify premium pricing by providing verifiable proof of quality and provenance. As the market for premium and certified-origin hazelnuts continues to grow, these tools will be essential for defending brand reputation and ensuring fair trade.

Spectroscopic Screening to Complement Lipid Fingerprinting

A parallel study,² conducted by the same researchers in collaboration with the Walloon Agricultural Research Center in Belgium, investigated the use of infrared spectroscopy—both near-infrared (NIR) and mid-infrared (MIR)—to analyze the same set of hazelnut samples. These techniques illuminate a sample with specific wavelengths of light and record the unique spectrum of absorbed radiation, which provides insights into the nut's chemical composition.

Spectroscopy offers several practical benefits for the hazelnut industry. It enables rapid screening, delivering results in seconds with minimal sample preparation. This not only saves time but also reduces costs, as it requires fewer chemicals and less labor. The portability of spectroscopy devices makes them ideal for use in various settings, such as farms, warehouses, or ports, allowing for quick on-site analysis. Additionally, spectroscopy serves as an excellent complement to lipidomic analysis, providing an efficient first-pass screening tool before conducting more detailed fat analysis for confirmation.

Benchtop NIR and MIR: Top Performers

When hazelnuts were ground into a uniform powder, both benchtop NIR and MIR instruments achieved high classification accuracies—around 95–96% for identifying both cultivar and origin (Table 1). The uniformity of ground samples enhanced light interaction with the nut's oil and protein content, leading to improved results.

Handheld NIR: Lower Performance but Portable

Handheld NIR devices offer excellent portability and the ability to perform real-time analysis, making them ideal for on-the-go quality checks during harvest or transport. While less accurate in detecting geographical origin (Table 1), this approach performed well at cultivar identification, providing a quick and efficient solution for field applications.

Ensuring Hazelnut Integrity: How Science Drives a Trustworthy Supply Chain

Lipidomic analysis and spectroscopy together form a powerful toolkit for hazelnut authentication, with each technique complementing the other. The lipidomic approach provides in-depth, molecular-based analysis, while spectroscopy offers fast results. Both methods achieved over 90% accuracy in classifying unknown samples. When

strategically combined, they can foster a more transparent and trustworthy supply chain.

Although further validation is underway with commercial-scale and specific PDO/PGI samples, the path forward is clear: scientific innovation is streamlining the process of protecting premium cultivars, verifying geographical origins, and ensuring that consumers receive the genuine, high-quality products they expect. ■

These studies were developed under the TRACENUTS project, funded by MICIU/AEI/10.13039/501100011033.

Table 1

External validation results of models based on spectroscopic data
(mean \pm standard deviation of 7 iterations).

	CORRECT CLASSIFICATION (%)		
	hNIR	NIR	MIR
Cultivar model			
non-TG	80 \pm 5	92 \pm 4	93 \pm 7
TG	89 \pm 5	98 \pm 3	98 \pm 3
Total	84 \pm 2	95 \pm 2	95 \pm 2
Origin model			
CHL	91 \pm 6	100 \pm 0	100 \pm 0
ESP	95 \pm 5	98 \pm 3	98 \pm 3
GEO	59 \pm 15	92 \pm 8	86 \pm 8
ITA	65 \pm 8	92 \pm 11	85 \pm 10
Total	83 \pm 2	96 \pm 2	94 \pm 2

hNIR: handheld near-infrared; TG: Tonda di Giffoni; non-TG: other cultivars; CHL: Chile; ESP: Spain; GEO: Georgia; ITA: Italy.

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Biodiversity Improvement in Woody Crops: Local Actions, Global Impact



Mas de Colom estate. Photo courtesy of Borges.

Borges Agricultural & Industrial Nuts has launched a pilot project on its Mas de Colom estate in Spain to monitor and enhance biodiversity in almond, pistachio, walnut, and olive tree plantations, combining sustainable farming practices with measurable environmental and social benefits. This project was a finalist for the 2025 INC Sustainability Award – Back to the Planet.

Borges's initiative at Mas de Colom spans around 70 hectares of productive agricultural land interspersed with natural and semi-natural habitats. The project demonstrates how farming activity and biodiversity conservation can be aligned, creating positive outcomes for ecosystems, communities, and the broader agricultural sector.

The project's core objective is to improve and monitor biodiversity at the farm level while establishing robust methodologies to measure progress quantitatively. Unlike conservation efforts that focus solely on environmental preservation, Borges integrates these practices directly into the agronomic management of its crops. This ensures that conservation actions are practical, economically feasible, and transferable to other producers within the nut sector and beyond.

To guide the initiative, in 2022, Borges developed a Biodiversity Action Plan after an initial assessment using the Biodiversity Performance Tool. This assessment identified key areas for improvement, enabling the company to design specific measures that would benefit biodiversity while remaining compatible with productive agricultural systems. In 2024, the project entered its second phase, refining methodologies to include internationally recognized means of verification, allowing biodiversity gains to be quantified as percentages across the estate.

The operational framework of the project is built around three strategic lines of action: agronomic management of cultivated areas, management of semi-natural habitats in uncultivated areas, and social engagement. Each component is supported by measurable indicators, including nutrient and soil management, use of phytosanitary products, energy efficiency, ecological infrastructure, water use, waste management, and training of personnel and local stakeholders.

Monitoring of biodiversity is central to the project. Borges measures six key groups: landscape, flora, pollinators, soil arthropods, other aerial invertebrates, and birds. Data collection occurs across multiple crop types —almonds, walnuts, pistachios, and olives—at designated monitoring points in different agricultural areas and during two separate periods each year. This comprehensive approach ensures the robustness and reliability of the results.

“ *Mas de Colom has recorded a 21% increase in biodiversity, with vegetative cover now spanning approximately 70% of the estate.* **”**

External expertise has strengthened the project's scientific and practical credibility. Local organizations, including the Global Nature Foundation and Minuartia, have advised Borges throughout the project, fostering alliances with experienced entities.

The environmental impacts of the initiative are tangible. Since the start of the project, Mas de Colom has recorded a 21% increase in biodiversity compared to initial levels. Vegetative cover now spans approximately 70% of the estate, transforming formerly barren land into thriving habitats for numerous species. The reduced use of herbicides and tillage along crop margins has allowed species of interest, such as wild almond and olive trees, to colonize these areas, enhancing ecological diversity.

Specific measurements highlight the project's effectiveness. During the 2024 monitoring campaign, 106 species of flora, 23 species of birds, 33 genera of pollinators, and 22 genera of other invertebrates were identified across productive areas, fallow land, and semi-natural vegetation slopes. These results reflect the direct impact of sustainable agricultural practices on biodiversity and provide concrete evidence of positive ecological change.

Beyond the environment, the project generates significant social value. By using internationally recognized metrics, Borges has enabled comparative and standardized assessments of biodiversity, similar to those used in carbon sequestration projects. This standardization allows biodiversity improvements to be expressed as a percentage gain per unit area, thereby reducing ambiguity and facilitating communication with communities and stakeholders.

Mas de Colom also serves as an educational hub. More than 15,000 visitors annually—including schools, families, and customers—engage with the estate, learning about sustainable farming, biodiversity conservation, and healthy eating. Through hands-on experiences and informative activities, Borges fosters environmental awareness and promotes a culture of sustainability that extends beyond the estate itself.

The project's outcomes extend to supply chain improvements. Insights gained from this initiative have informed a Responsible Sourcing Plan, encouraging sustainable practices throughout Borges's network. By demonstrating that biodiversity-focused interventions are economically feasible and operationally effective, the project provides a model for other players in the nut sector.



Biodiversity monitoring at the Mas de Colom estate. Photos courtesy of Borges.

Innovation is a defining feature of Borges's initiative. The project's methodology allows precise measurement of biodiversity impacts at an uncommon level of quantification. The use of internationally recognized metrics enables the company to monitor improvements in each crop type, compare management approaches, and provide verifiable evidence of environmental gains.

The project also supports climate resilience. Improved vegetation cover, soil health, and ecosystem services such as pollination and pest control contribute to the adaptation of crops to climate change while mitigating environmental impacts. This holistic approach underscores the interconnected nature of sustainable agriculture, biodiversity, and climate action.

Scalability is another strength of the initiative. The simplicity of the implemented measures, combined with the depth of monitoring data, means the project can be adapted to other estates and regions. By providing clear methodologies, measurable indicators, and verifiable results, Borges offers a reproducible model for the sustainable management of woody crops.

In short, Borges's pilot project at Mas de Colom exemplifies how practical and economically feasible agricultural interventions can generate measurable benefits for biodiversity, climate resilience, and community engagement. By combining rigorous monitoring, social outreach, and innovative methodologies, the company has created a framework that not only strengthens the sustainability of its own operations but also offers valuable guidance for the wider nut sector and agricultural community worldwide. ■

From Macadamia Nut to Flame: Fueling a Greener Future

Shisa Eco-Briquettes transform a major by-product of macadamia processing into a cleaner energy source. Thousands of tons of nutshells—once destined for landfills or burning—are repurposed into eco-friendly briquettes. This innovation offers a sustainable alternative to charcoal, protecting forests, cutting emissions, and creating income for farmers and rural communities. Shisa Eco-Briquettes was a finalist for the 2025 INC Sustainability Award – Back to the Planet.

By turning a waste product into clean-burning fire fuel, South Africa's Shisa Eco-Briquettes are proving that sustainability can start with a single spark and grow into a global movement.

Like Green & Gold Macadamias, Shisa shares the vision of unlocking the full value of the macadamia industry and doing business with sustainability at heart.

South Africa's macadamia industry produces thousands of tons of nutshells each year, dense, oily husks that once ended up in landfill or were burned in open piles. But one entrepreneur saw potential in the problem.

In 2020, Michael Duncan asked a simple but transformative question: What if these shells could replace charcoal and firewood? What if the by-product of one industry could fuel a more sustainable future for another?

The result was Shisa Eco-Briquettes, a proudly South African innovation that turns waste into warmth, and wastefulness into opportunity.

From Macadamia Farm to Market

Once kernels are removed, the shells travel by conveyor from the processing facilities of Green Farms Nut Company (a Green & Gold Macadamias shareholder and supply partner) into the Shisa factory. There, they are milled into fine particles and pressed into high-density, non-carbonized briquettes, meaning they are not burned in production like traditional charcoal.

The process is efficient and circular. Nothing goes to waste. Even the fine shell dust created during milling is reused.

Each briquette is cut, cooled, and packed into 5 kg boxes or bags ready for retailers.

The Science of a Cleaner Burn

Unlike charcoal made by burning wood in oxygen-deprived kilns, Shisa's briquettes are pressed under heat and pressure only—no combustion, no soot.

This simple shift in process delivers big environmental benefits:

- Up to 75% fewer carbon emissions
- Up to 80% fewer fine particles (less smoke and air pollution)
- Only 2.6% ash residue, compared to charcoal's 10%
- No trees cut down, no new carbon added

In short, the same macadamia trees that produce nuts for global markets continue to absorb carbon every year, while their



Photos courtesy of Shisa Eco-Briquettes.

BY THE NUMBERS

IMPACT AREA	SHISA ECO-BRIQUETTES
Raw Material	100% macadamia nutshells (agricultural by-product)
Carbon Reduction	Up to 75% lower emissions vs. charcoal
Fine Particle Emissions	Up to 80% less smoke
Ash Content	Only 2.6%
Landfill Diversion	30,000+ tons of shells annually
Employment	5 people, with expansion planned
Burn Performance	Long-lasting, clean flame with high heat output

shells help people cook and heat without cutting a single tree.

"Our briquettes burn long, clean, and bright, just like a hardwood fire, but with none of the harm," commented Michael Duncan, founder of Shisa Eco-Briquettes.

A Circular Economy in Action

Each year, 30,000–35,000 tons of macadamia shells are produced in South Africa. Traditionally, most of that ended up in landfill, decomposing slowly and releasing methane gas.

Shisa's solution turns that waste into fuel, reducing the need for charcoal and firewood, curbing deforestation, and cutting emissions.

By turning waste into value, Shisa embodies the heart of the circular economy, where nothing goes unused and every by-product has a new purpose.

Every ton of shells diverted from landfill saves the equivalent of two tons of CO₂ emissions and prevents methane release from decomposition.

From Farmers to Families

The impact of Shisa's innovation reaches far beyond the factory. For macadamia growers, it creates revenue from a by-product that once cost money to dispose of. For rural workers, it brings jobs, five people and counting, with plans to grow. And for consumers, it offers a guilt-free alternative to charcoal aligned with South Africa's barbecue culture.

Challenges, Triumphs, and Growth

In the beginning, consistency was a challenge. Different macadamia cultivars meant different shell textures, affecting density and burn time. Months of experimentation led to a formula that delivered a steady, strong, long-lasting burn.

Then came the market challenge. Because Shisa Eco-Briquettes are a premium product, early adopters were few.

"Consumers needed to see and feel the difference," Duncan recalls. "Once they did, they came back. The repeat purchase rate speaks for itself."

Today, the company's biggest problem is a good one: keeping up with demand. Production capacity is 500 metric tons, but interest from both local and export markets continues to grow.

Keeping Forests Standing

Across parts of Africa, deforestation from charcoal production is causing devastating loss of natural hardwood forests. In Malawi, for example, large tracts of woodland have disappeared to feed urban fuel demand.

By replacing traditional charcoal with a cleaner, nut-based alternative, Shisa Eco-Briquettes offer a tangible solution, one that could be scaled to other macadamia-growing countries such as Kenya, Australia, or Brazil.

Each Shisa briquette means fewer trees cut, fewer emissions released, and less waste sent to landfill.

A Flame That Lasts Longer Than Wood

For those who have tried them, the benefits are immediate: steady heat, low smoke, easy handling, and a natural flame that enhances any barbecue or fireplace.

More than just fuel, Shisa Eco-Briquettes represent a lifestyle choice, one that blends tradition with responsibility and reflects the kind of forward thinking that continues to drive innovation across the broader macadamia value chain.

Shisa's vision is bold: to make eco-briquettes available wherever macadamia is processed and to inspire other industries to do the same with their by-products. In time, the company also hopes to explore carbon credit programs to quantify its positive climate impact. ■



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*Less than 15% of pieces fall through a 20/64" RHS. Product shown is 2024 crop.

QUESTIONS?

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SAMAC
Macadamias South Africa NPC

Celebrating Culinary Excellence

South Africa's homegrown macadamia nuts shone at Chaîne des Rôtisseurs, South Africa.

Cape Town-born, Juan Fourie rose to the top at the prestigious Chaîne des Rôtisseurs 2025 Jeunes Chef's National Competition, impressing judges with a refined menu that celebrated South African ingredients including homegrown macadamia nuts. The 26-year-old will represent South Africa at the global finals in Türkiye in April 2026.

SAMAC's continued support of this competition underscores our mission to position macadamias as a versatile, premium ingredient with incredible gourmet potential. Thanks to rising talents like Juan Fourie, the future of South African macadamias in global haute cuisine is just getting cracking.



Juan Fourie's Winning Menu

Appetiser

Ginger cured seabass with macadamia crumb, macadamia herb oil and tomato pickle.

Main Course

Pan-grilled lamb rump with confit and baby carrots, charred broccoli, butternut puree, macadamia dukkha spice and macadamia oil mint sauce.

Dessert

Apple rose brûlé with candied macadamia nuts, macadamia nut tuile and apple macadamia creme.



www.samac.org.za

Country/Product Spotlight



Macadamias & South Africa

Industry Highlight

An overview of production and trade

Determining Water Stress Thresholds for Smarter Macadamia Irrigation

Researchers explore how to optimize irrigation practices

Health Benefits of Macadamias

Discover the many ways this nutrient-rich nut can support a healthy lifestyle

New Product Launches

Explore new products featuring macadamia nuts

This edition is the 18th in our series of industry and market overviews in *Nutfruit* magazine. This report provides a snapshot of the South African macadamia industry, with data, analysis, and trends.

We would like to thank Macadamias South Africa (SAMAC) for their collaboration on this edition.

Industry Highlight

The South African Macadamia Industry in Numbers

85,166 MT
production
(2025 forecast¹)

87,227 MT
production
(2024¹)

84,039 ha
land under
plantation

1,100+
farmers

50+
nurseries

40+
handlers and
processors

±50,000
jobs

1. In-shell basis, 1.5% moisture content.

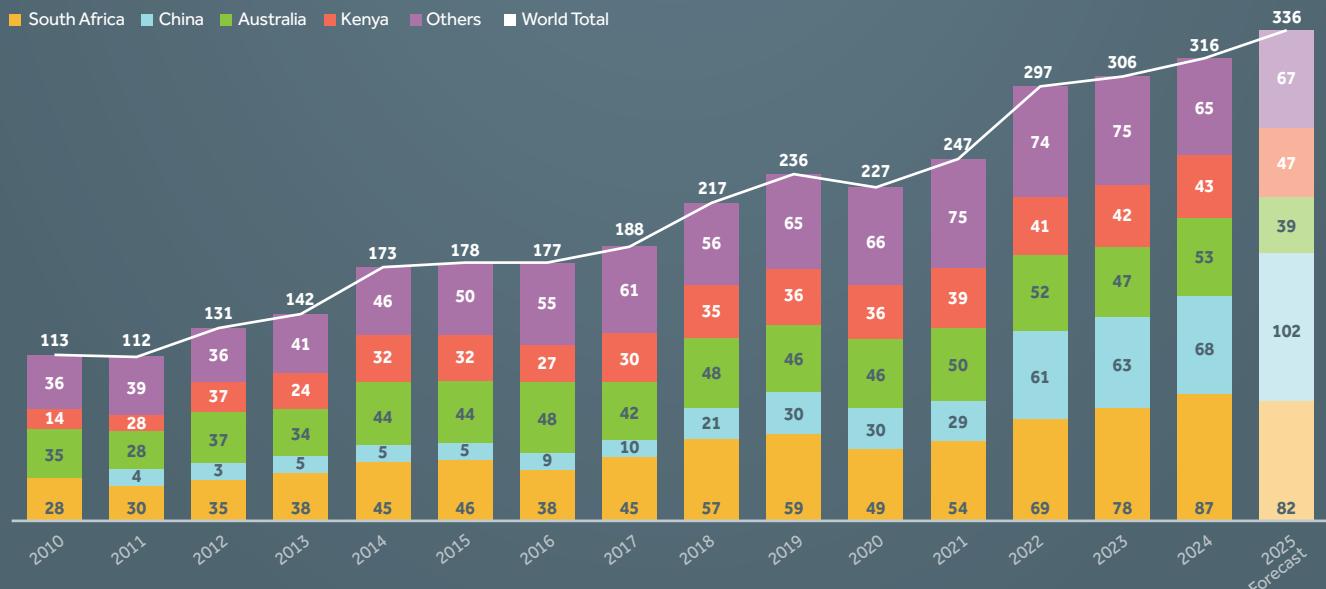
Production

Nestled between subtropical coastlines and fertile inland valleys, and benefiting from an ideal climate, South Africa has been the world's largest producer of macadamias over the last decade, delivering 87,227 metric tons of nut-in-shell (1.5% moisture content) in 2024 (Figure 1) and forecast to reach 133,000 MT by 2030.

Over the past 15 years, South Africa's macadamia industry has experienced remarkable growth. Production volumes have more than tripled from 28,428 MT in 2010 to an estimated 87,227 MT in 2024 (Figure 1), reflecting a compound annual growth rate (CAGR) of 8% between 2010 and 2024. This expansion reflects sustained investment in orchards, improved farming practices, and increasing global demand. The slight dip in the 2025 crop forecast is attributed to weather disruptions that affected yields and resulted in smaller nut sizes in some regions.

Figure 1. World Macadamia Production, 2010-2025
(Thousand Metric Tons, Nut-in-Shell, 1.5% Moisture Content).

Sources: Macadamias South Africa (SAMAC) and INC Database.

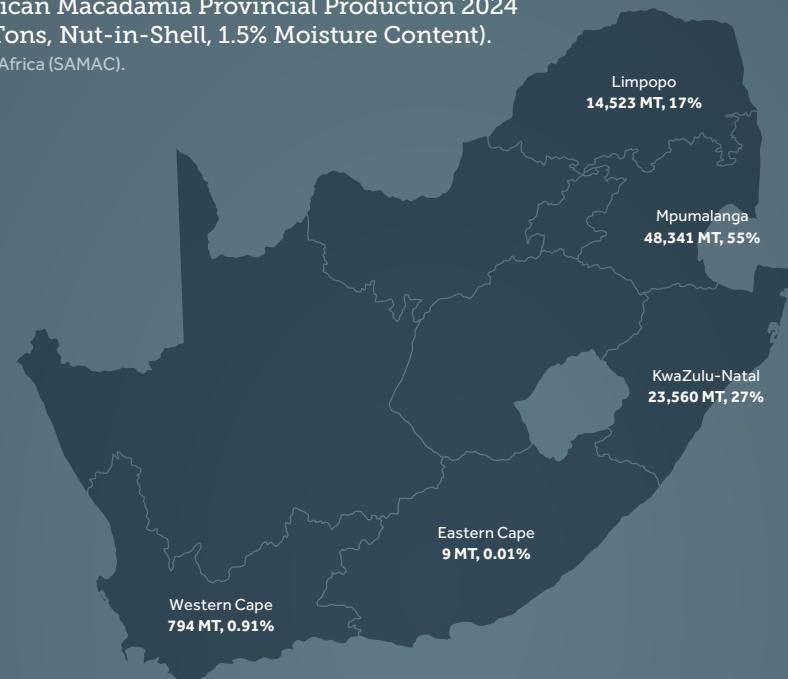




Macadamia production in South Africa is highly concentrated in three provinces. Mpumalanga dominates the national output, producing 48,341 MT (55%) of the country's total crop in 2024. KwaZulu-Natal follows with 23,560 MT (27%), while Limpopo contributes 14,523 MT (17%), together accounting for nearly all national production. These provinces offer ideal agro-climatic conditions for macadamia cultivation, including suitable rainfall, temperature, and soil profiles. Smaller volumes are also produced in Western Cape and Eastern Cape, with 794 MT (0.91%) and 9 MT (0.01%), respectively (Figure 2). KwaZulu-Natal has experienced the most rapid expansion in planted areas, with a large proportion of orchards less than 10 years old².

Figure 2. South African Macadamia Provincial Production 2024 (Thousand Metric Tons, Nut-in-Shell, 1.5% Moisture Content).

Source: Macadamias South Africa (SAMAC).



South Africa's macadamia industry comprises around 1,100 growers who have made significant investments in new orchards and expanded production areas, driven by strong demand and favorable returns. Over 40 macadamia cultivars are grown in the country, with notable varieties such as Beaumont (695), Nelmac 2, Nelmac 1, Nelmac D, 816, 814, A4 (renowned for its large kernels and high yields), A16, 791, 344, and 788, among others.

The total planted area has increased from roughly 6,750 hectares in 2001 to 84,000 ha in 2024, as macadamia is increasingly being planted by sugarcane and citrus growers. Although the industry has expanded rapidly, it has faced increasing financial pressure in recent years as a result of lower market prices and escalating input costs. To mitigate these challenges, producers are investing in precision agriculture to enhance productivity and nut quality, aiming to achieve stronger returns in export markets³.

Moreover, South African macadamia production is making tangible progress towards sustainability. Most orchards are rain-fed, thereby alleviating pressure on natural water resources. In addition, a significant share of the crop is grown under Global G.A.P. certification—European standards that serve as a framework for responsible farming, both in terms of the environment and farm workers.

Over the past decade, there has been substantial investment in macadamia processing to ensure the industry can keep pace with growing production. This has included the construction of new processing facilities, the expansion of existing ones, and the adoption of modern sorting and cracking technologies, as well as solar energy systems.

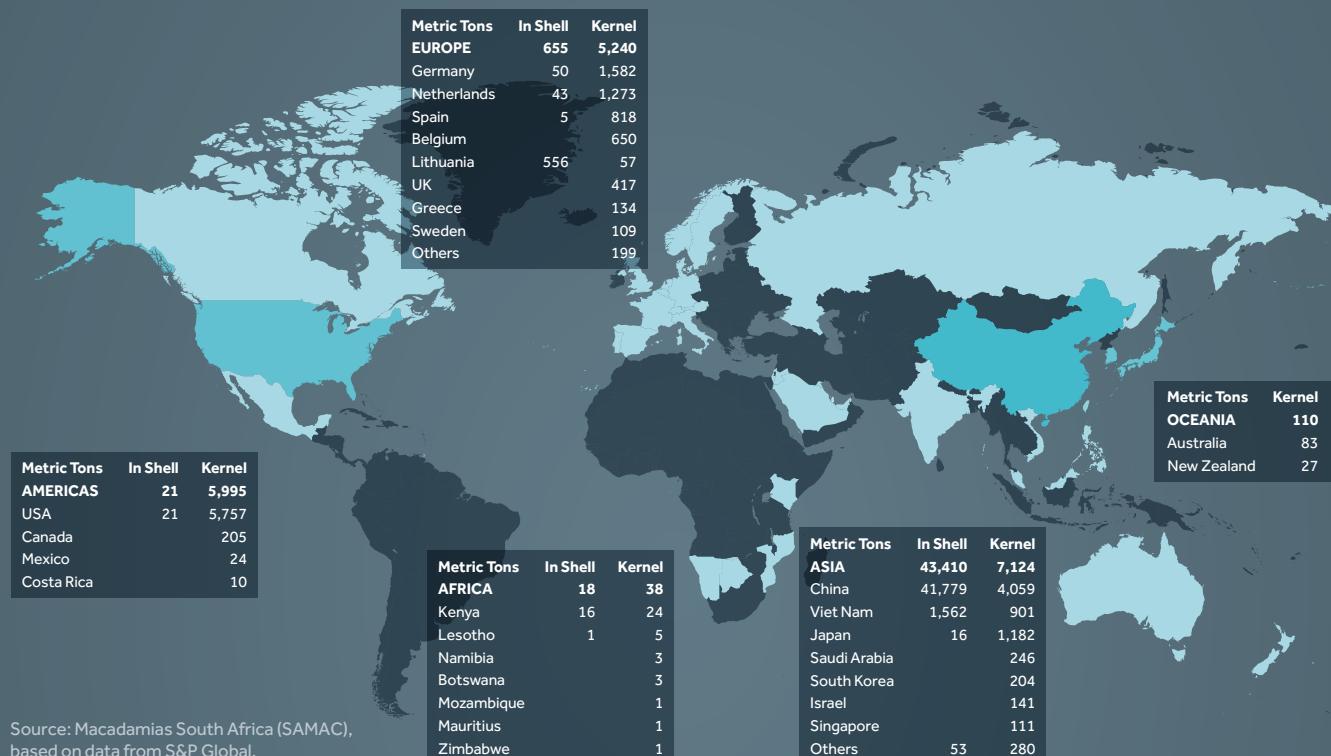
In addition, several factories have installed pasteurization equipment capable of achieving a validated 5-log reduction in pathogens and microorganisms. This has strengthened customer confidence in the food safety of South African macadamias. There has also been investment in processing capabilities to produce kernel products beyond traditional grades. As a result, there is growing interest in new product development and in the use of macadamias as an ingredient in applications beyond traditional snack products.

2. South Africa's Macadamia Industry Grows Despite Export Uncertainty. July 28, 2025. United States Department of Agriculture, Foreign Agricultural Service, Global Agricultural Information Network.
3. Macadamias South Africa (SAMAC).

Trade

South African macadamias are exported to numerous destinations worldwide as nut-in-shell (NIS) or kernel. Main markets include Asia, Europe, and the USA. While kernel is imported by Europe, the USA, China and other destinations in Asia and the Middle East, Asia, particularly China, stands out as the largest importer of nut-in-shell. In 2024, South Africa exported macadamias to 41 different destinations around the world (Figure 3). Domestic consumption remains modest, and overall demand is predominantly export-oriented⁴.

Figure 3. Global Exports of South African Macadamia by Destination, 2024
(Metric Tons, January-December, HS Codes 080261 and 080262).



Source: Macadamias South Africa (SAMAC), based on data from S&P Global.

South African Macadamia Kernel Exports (2015-2024)

As global demand for high-quality macadamia kernel continues to grow, South Africa remains a critical player in meeting this demand. Analyzing cumulative export volumes of macadamia kernels across four markets, *i.e.*, USA, Europe, China and the rest of Asia, offers insight into consumption patterns and emerging opportunities. Over the last decade, the kernel export market grew significantly, with notable peaks in 2019 and 2023, and a CAGR of 10%. By 2024, total output remained near record highs (Figure 4) and 2025 data through August indicates strong momentum.

The USA dominated the early years, reaching its highest point in 2019 before stabilizing around 3,200-5,700 MT in recent years (CAGR 5%). Europe showed steady and consistent growth, nearly doubling its contribution, from 2,574 MT in 2015 up to 5,240 MT in 2024, and a CAGR of 8% (Figure 4). This reflects Europe's ongoing demand for premium-quality macadamia in snack and ingredient sectors. These are markets where traceability, sustainability, and product versatility are key decision drivers.

China's kernel import is the most striking trend. With a CAGR of 24% between 2015 and 2024, its share surged considerably, narrowing the gap with Europe and the USA and becoming the main growth driver. After a significant increment in 2019 and 2020, and subdued volumes in 2021-2022, China surged past 8,000 and 4,000 MT, in 2023 and 2024, respectively (Figure 4). Exports to the rest of Asia, although lower in volume, have also expanded over the past decade, across both East and Middle Eastern markets. Japan and Viet Nam remain the leading destinations. Exports to countries such as Saudi Arabia, South Korea and Israel have also strengthened (Figure 3).

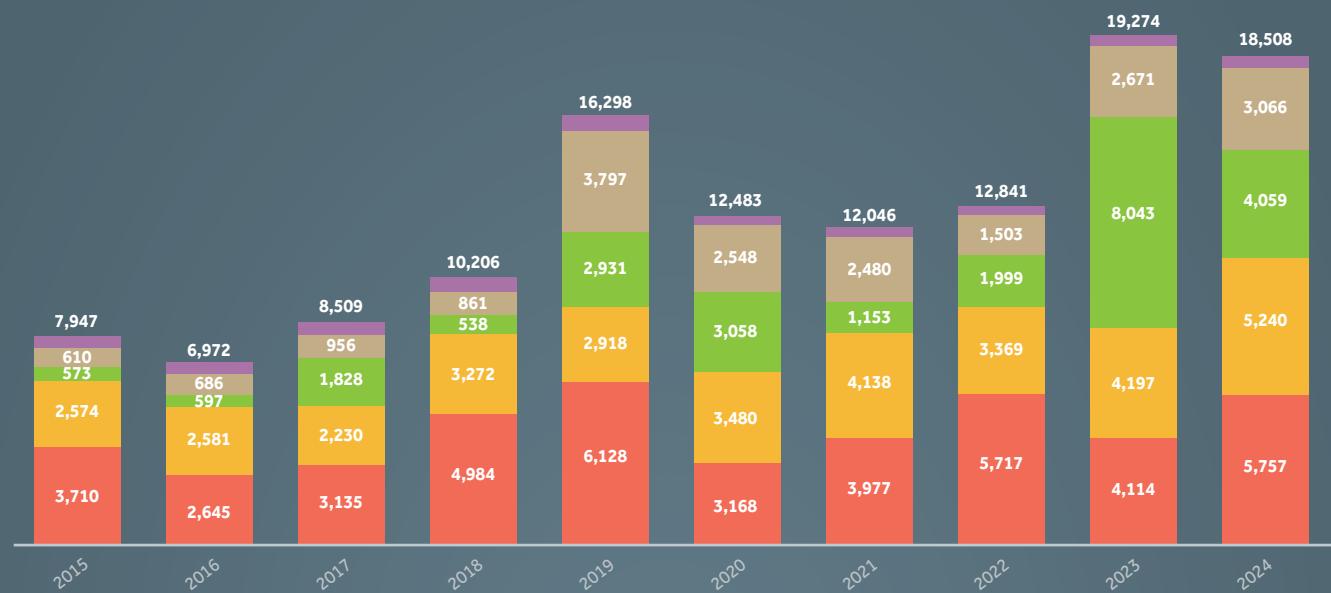
4. South Africa's Macadamia Industry Grows Despite Export Uncertainty. July 28, 2025. United States Department of Agriculture, Foreign Agricultural Service, Global Agricultural Information Network.



Figure 4. Global Exports of South African Macadamia Kernel by Destination, 2015-2024 (Metric Tons, January-December, HS Code 080262).

Source: Macadamias South Africa (SAMAC), based on data from S&P Global.

■ USA ■ Europe ■ China ■ Asia, Others ■ Rest of the World



South African Macadamia Nut-in-Shell Exports (2015-2024)

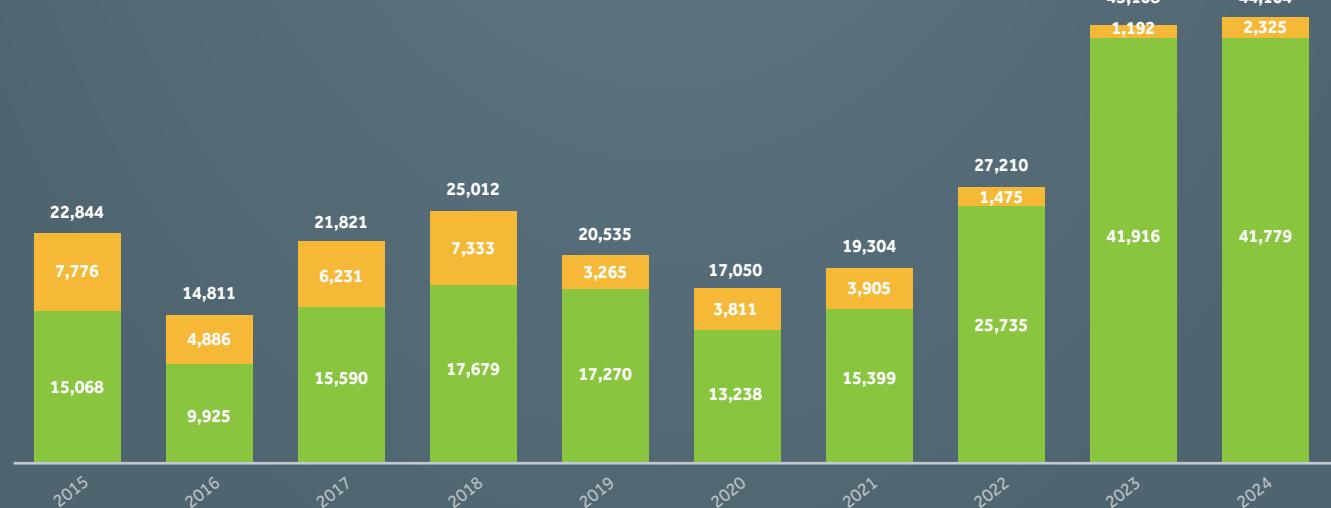
From 2015 to 2024, exports of South African NIS showed a generally upward trend, with some periods of fluctuation. Total exports rose from 22,844 MT in 2015 to 44,104 MT in 2024, almost doubling over the decade, and growing at a CAGR of 8% (Figure 5).

With a ten-year CAGR of 12%, China consistently dominated as the largest NIS importer throughout the period, accounting for the majority of total exports each year and showing exceptional growth after 2021. Chinese imports increased from roughly 15,000 MT in 2015 to ca. 42,000 MT in both 2023 and 2024, underscoring China's pivotal role in the global macadamia market, especially in recent years. After a dip in 2020 and 2021, exports surged sharply from 2022 onward, reaching record highs in 2023 and 2024 (Figure 5). In 2024, China accounted for 95% of the NIS exports share. ■

Figure 5. Global Exports of South African Macadamia Nut-in-Shell by Destination, 2015-2024 (Metric Tons, January-December, HS Code 080261).

Source: Macadamias South Africa (SAMAC), based on data from S&P Global.

■ China ■ Others



Determining Water Stress Thresholds for Smarter Macadamia Irrigation

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In South African macadamia orchards, irrigation may sometimes need to be reduced below the full water requirements to deal with reduced allocations during droughts. Researchers from the University of Pretoria have explored how to optimise irrigation practices to make the most of limited water resources.

The increased focus on sustainable agricultural practices has led to several projects on water use and optimisation of irrigation in macadamia orchards in South Africa. While these studies have focused on maximum water use and irrigating to the full water requirements of the crop, there may be times when irrigation needs to be reduced below the full water requirements to deal with reduced allocations during droughts. Deficit irrigation strategies have proved successful in many crops for saving water, but before any strategies can be implemented, it is important to understand the stress response of the trees to increasing water deficits and to identify the phenological stages that are most sensitive to water stress in terms of yield and quality. Determining water stress thresholds for macadamia trees is therefore an important step for establishing deficit irrigation strategies.

KEY DEFINITIONS

Predawn Leaf Water Potential	A measure of the water status in a plant's leaves before sunrise, indicating the water status of the plant and how much water is available in the soil.
Soil Water Potential	A general measure of how easily water can be taken up by plant roots. More negative values indicate drier soil, making water harder for plants to access.
Tensiometer	A device used to measure soil water potential. It consists of a water-filled tube with a porous tip and a pressure gauge, showing how hard plants have to work to pull water from the soil.
Stomatal Conductance	A measure of how open the tiny pores (stomata) on a leaf are. It controls the exchange of gases and water vapor between the plant and the air.

To make sure that trees could be subjected to controlled water stress, a pot experiment was conducted. A number of stress cycles were performed for the potted macadamia trees, and during each cycle researchers determined the predawn leaf water potential and soil water potential at which a decline in stomatal conductance caused a significant decline in photosynthesis relative to a well-watered control. This means that researchers looked at how dry the soil and the leaves were just before sunrise (when the water status of the leaves comes into equilibrium with the soil). They wanted to find out how dry the soil needs to be for the tiny openings on the leaves (called stomata) to start to close, which would cause a noticeable drop in photosynthesis, especially compared to plants that had enough water. These thresholds were then also assessed in a mature 'Beaumont' macadamia orchard in Barberton, South Africa, where different trees were stressed during different phenological stages.



Using a piecewise linear regression model to separate out different levels of stress, the mild stress threshold values were determined to be -0.6 MPa for predawn leaf water potential (Ψ_{pd}) for potted trees and -0.7 MPa for field grown trees. In the pots and field, this corresponded to a soil water potential value of approximately -150 kPa to -170 kPa, measured using a soil water potential sensor and not a tensiometer. Researchers wanted to try and define a soil water potential value as it is more useful to growers, since it represents a refill point for a drying soil and will be fairly consistent between different soils. This value can then be used to derive volumetric soil water content thresholds for soils with different textures. As predawn leaf water potential measurements are manual, researchers also used constant logging dendrometers (measuring very small changes in stem diameter) to assess if they can be practically used for irrigation scheduling. As these are all point measurements on individual trees or small volumes of soil, remote sensing tools were also used to determine possible water stress on a spatial scale using measurements of canopy temperature. On average, the canopy temperature of water-stressed trees was 3°C higher than for well-watered trees (Figure 1).

Figure 1

Visual display of canopy temperature in the orchard, where black boxes indicate warm canopies of a water-stressed treatment during the last stages of oil accumulation.

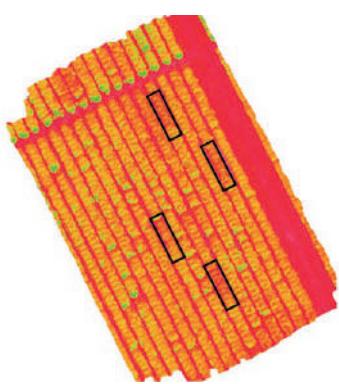
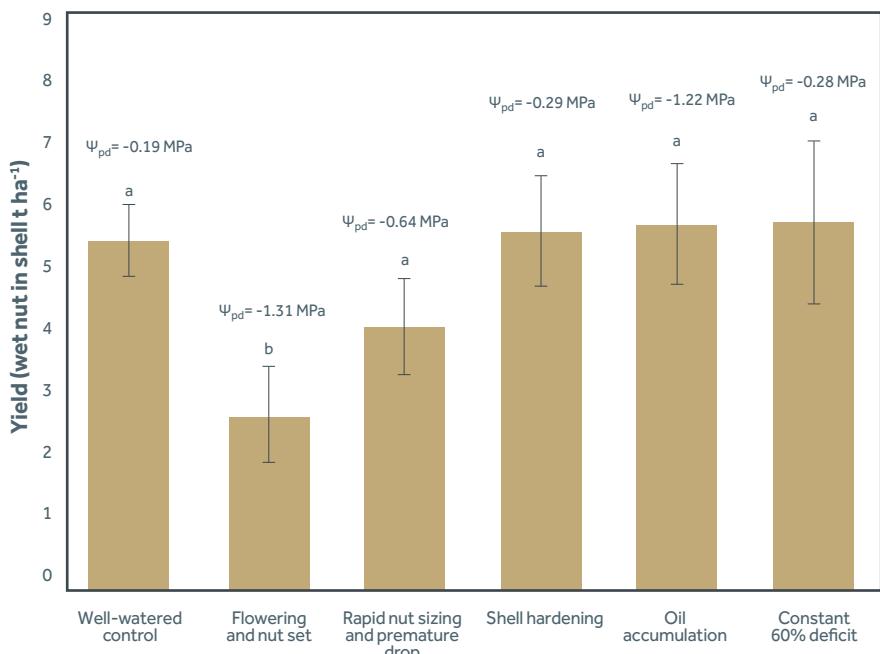


Figure 2

Wet-in shell yield for the 2023/24 season. Treatments with the same letter are not significantly different from each other ($p < 0.05$). Above each treatment is the minimum predawn leaf water potential (Ψ_{pd}) measured during each stage. The threshold for stress is -0.7 MPa.



To assess the impact of water stress on yield and quality of macadamia orchards, trees were stressed during flowering and nut set, rapid nut sizing and premature nut drop, shell hardening, oil accumulation, and post-harvest during flower initiation. These treatments were compared to a well-watered control, which is the farm practice. In the 2023/24 season, the flowering and nut set stage was the most sensitive to water stress when comparing yields of the different treatments (Figure 2), with a 50% decline in yield relative to the well-watered control. However, due to the decline in yield, nuts were largest in this treatment compared to all the other treatments. Yield was reduced by 25% when trees were stressed during nut sizing (but not significantly different to the control) and in general nuts were smaller relative to the well-watered control. Although the minimum predawn leaf water potential fell below the threshold for the oil accumulation stage, this was only towards the end of the stage when the summer rains had stopped. In general, as soon as the summer rains started it was very difficult to impose a stress, even though irrigation was turned off and the soil surface covered with plastic. The most significant stress was caused post-harvest, and researchers eagerly await yield results for this season. This suggests that it may be possible to make significant water savings during shell hardening and oil accumulation by making the most of available rainfall. Even a constant 60% evapotranspiration deficit had no impact on yield during this season.

Identifying measurable values for stress thresholds for macadamia trees is critical for developing objective tools for irrigation scheduling, especially if and when water allocations are reduced. Stress thresholds should not be exceeded during the flowering and nut set stage, as this stage is very sensitive to stress and since there is little rain at this time, irrigation should be carefully scheduled. In years with good rains, irrigation should be scheduled to make the most of available rain, as there was almost no impact on yield when irrigation was completely turned off from nut hardening to oil accumulation in the 2023/24 season. As soon as the rain stops, careful scheduling should resume, as substantial stress was possible during the post-harvest period from May to July.

Macadamias: Where Health Meets Indulgence

Macadamia nuts are gaining global attention not only for their smooth, buttery taste but also for their nutritional profile. They are packed with vital nutrients and healthy fats—an ideal choice for a wholesome, nourishing snack. These creamy nuts serve as natural fuel for your body, supporting overall well-being, heart health, and sustained energy throughout the day.

Nutritional Profile

Every bite of macadamias contains an impressive array of nutrients. Macadamias are especially high in monounsaturated fat¹ —the heart-healthy kind that may help lower “bad” cholesterol. In fact, monounsaturated fat accounts for 80% of the fat content in macadamias.²

Macadamias are also high in dietary fiber, thiamin (vitamin B₁), magnesium, manganese, and copper, as well as a valuable source of vitamin B₆, niacin (vitamin B₃), potassium, iron, phosphorus, and selenium.³

Heart Health

Macadamias are a flavorful and effective way to support cardiovascular health.

In one study,⁴ researchers studied the effects of consuming macadamias on plasma biomarkers of oxidative stress, coagulation, and inflammation in men with high cholesterol. After eating macadamias daily for four weeks, participants had increased levels of monounsaturated fatty acids and lower markers of inflammation and oxidative stress. The findings suggested that macadamia consumption may play a role in the prevention of coronary artery disease.

A randomized, crossover, controlled feeding study⁵ compared the effects of eating a macadamia nut-rich diet versus eating an average American diet and found that serum concentrations of total cholesterol and LDL (“bad”) cholesterol were lower after participants ate the macadamia diet than after they ate the average American diet. In addition, the concentration of HDL (“good”) cholesterol, the ratio of total cholesterol to good cholesterol, and ratio of bad cholesterol to good cholesterol were also improved after the macadamia diet, indicating a shift toward a more favorable cholesterol balance. The researchers concluded that macadamias can be included in a heart-healthy dietary pattern that reduces lipid/lipoprotein cardiovascular risk factors.

Another study⁶ analyzed how macadamia consumption affects body weight, waist circumference and other cardiometabolic risk factors in overweight and obese adults. The findings showed that consumption of macadamias did not lead to changes in waist circumference, body mass, or percentage of body fat. Moreover, compared to the control diet, consumption of macadamias led to reductions in total cholesterol, LDL (“bad”) cholesterol, average weight, and body mass index.

Antioxidant Activity

Research has shown that macadamias contain significant amounts of tocotrienols and squalene, which are phytochemicals that may confer antioxidant, anti-cancer, and cholesterol-lowering properties to consumers.⁷ Moreover, macadamias are high in manganese and copper, as well as a source of selenium—all of which contribute to the protection of cells from oxidative stress.⁸

Skin Health

Finally, macadamias also play a role in skin health, with macadamia oil serving as a key ingredient in numerous cosmetic products. Research has explored the potential of macadamia oil as an ingredient in nanoemulsions⁹—formulations designed to improve the delivery of active ingredients—demonstrating great potential for cosmetic and cosmeceutical applications, providing both antioxidant and anti-aging benefits.

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Consumer Appeal

Macadamias carry premium consumer appeal, especially for the health-active segment seeking a snack high in good fats. This includes early adopters and lifestylers, who are open to new ingredients and willing to invest in wellness. These consumers respond strongly to products with a "health meets luxury" influence. For brands looking to differentiate, macadamias are a premium nut that delivers functional health benefits alongside a luxurious sensory experience. As health and nutrition become central to product strategy, macadamias are uniquely placed to elevate both wellness credentials and brand value. 

KEY HEALTH BENEFITS

- Cardiovascular health
- Cholesterol balance
- Weight management
- Antioxidant activity
- Skin health

HIGH IN:

Monounsaturated fat, fiber, vitamin B₁ (thiamin), magnesium, manganese, and copper.

SOURCE OF:

Vitamin B₆, vitamin B₃ (niacin), potassium, iron, phosphorus, and selenium.

Mango Smoothie With Macadamias and Pistachios

Ingredients:

- 2 mangoes
- 30 g macadamias
- 250 ml coconut milk
- 250 ml milk
- 1 tbsp agave syrup
- 1 tsp vanilla extract
- 1 cardamom pod
- 30 g pistachios

Preparation:

1. Peel and chop the mangoes.
2. Add the chopped mango to a blender along with the macadamias, coconut milk, milk, agave syrup, vanilla extract, and cardamom pod.
3. Blend until you reach your desired consistency. If you prefer a lighter smoothie, add more milk.
4. Serve and garnish with chopped pistachios.



New Product Launches

Celebrated for their smooth, creamy texture and subtly sweet, buttery flavor, macadamias are prized for their rich flavor and beneficial nutrients. Loved by chefs and consumers alike, they bring a touch of luxury to both sweet and savory creations. With interest in premium, plant-based ingredients on the rise, macadamias are sparking fresh ideas and starring in a growing variety of inventive new products. Here's a look at some of the latest macadamia innovations making waves in today's marketplace.



Giraf Original Macadamia Drink

South Africa

Dairy-free and gluten-free, this milk substitute tastes great in coffee, with your cereal, or on its own. Also available unsweetened, with oats, and with vanilla flavor.

<https://girafmacadamia.com/macadamia-milk-original/>



Trader Joe's Elevated Mixed Nuts

USA

This premium blend of whole macadamias, cashews, almonds, and pecans is lightly salted, delicately roasted, and ideal for snacking or entertaining.

<https://www.traderjoes.com/home/products/pdp/elevated-nut-mix-079601>



Häagen-Dazs Green Craft Mini Cup Chocolate and Macadamia

Japan

This soy-based frozen dessert combines crunchy macadamias with chocolate made from Ecuadorian cocoa.

<https://www.haagen-dazs.co.jp/products/special/greencraft-soy-chocolate-and-macadamia-2025/>



Pitada Natural Granola Salgada Macadâmia & Lemon Pepper

Brazil

This savory macadamia granola is made with seeds, whole oats, and extra virgin olive oil. Perfect for sprinkling over salads or soups.

<https://pitadanatural.com.br/produtos/granola-salgada-macadamia-lemon-pepper-400g/>



Premier Nut MacaPaste

South Africa

South African macadamias are dry-roasted to bring out their naturally buttery flavor and then stone-ground into this luscious, slightly crunchy paste.

<https://premiernut.co.za/product/macapaste/>



Meiji Macadamia Chocolate Okinawa Salt & Premium Vanilla

Japan

With a delicate balance of sweet and savory, this treat pairs buttery macadamia nuts with smooth white chocolate infused with Okinawan sea salt and premium vanilla.

<https://news.nissyoku.co.jp/foodsnews/250528-05>



Starbucks White Chocolate Macadamia Cream Cold Brew

Canada

This summertime refreshment combines cold brew coffee with macadamia syrup and white chocolate macadamia cream cold foam.

<https://www.starbucks.ca/menu/product/2123758/iced>

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NUTS 2025: Where We Are and Where We Are Going

The Finest Minds in Nutrition Research Gather
Under One Roof at INC HQ

From October 9-10, 2025, the world's leading nutrition researchers gathered at the INC Headquarters in Reus, Spain, for NUTS 2025, the only international event dedicated exclusively to scientific dialogue on nuts and dried fruit research. Building on the success of the previous edition held in 2022, this year's conference once again confirmed its unique role as a global platform for advancing scientific understanding of nuts and dried fruits, providing insights that will shape nutrition research in the years ahead.





NUTS 2025: Charting the Future of Nutrition Research on Nuts and Dried Fruits

Organized by the Universitat Rovira i Virgili, the Pere Virgili Institute of Health Research, and CIBERRobn, and sponsored by the INC, NUTS 2025 brought together 28 speakers and moderators from 12 countries. Across two days of intense presentations and debate, participants examined the effects of nut consumption throughout the human lifespan –from fertility and pregnancy to ageing— drawing on the most significant research conducted to date. The conference was chaired by Prof. Jordi Salas-Salvadó, Chairman of the INC World Forum for Nutrition Research & Dissemination and Distinguished Professor at Universitat Rovira i Virgili (URV), Spain.





Session Highlights

1

Nuts and Metabolic Health

Researchers presented compelling new evidence that nuts can play a vital role in supporting metabolic and cardiovascular health. Evidence shows that nuts may improve cholesterol profiles, reduce inflammation, and lower blood pressure — without contributing to weight gain. Importantly, speakers noted the need for more research beyond Western populations and in forms that reflect modern consumption, such as roasted nuts or nut-based drinks.

2

Cardiovascular Health and Beyond

Nuts are increasingly recognized as allies in heart health. Evidence continues to show associations between regular nut intake and reduced risks of coronary heart disease, stroke, heart failure, peripheral artery disease, and atrial fibrillation. Researchers also examined how nut bioactives support vascular function and highlighted the importance of studying diverse nut types in long-term trials.

3

A Lifecourse Perspective

A fascinating body of research is emerging on how nuts may influence health across different stages of life. From improving fertility outcomes to supporting cognitive development in children and preserving kidney function in adults, studies are revealing that nuts may contribute to wellbeing from early life through old age. New evidence also points to potential links between nut intake during pregnancy and improved child cognition.

4

Immunity and Allergies

Although still an underexplored area, early findings suggest that nuts may help strengthen the immune system, thanks to their nutrient-dense profile. In contrast, allergies remain a major challenge, but the research community is optimistic: early introduction of allergenic foods and novel approaches such as immunotherapy and microbiome-based interventions are showing promise in reducing allergy prevalence.

5

Novel Lines of Research

The INC-funded NUTPOOL project, involving data from nearly one million participants across four continents, was presented as a landmark step toward harmonized, large-scale evidence on nuts and non-communicable diseases. This study will assess links between nut intake and conditions such as cardiovascular disease, diabetes, cancer, and dementia, using a standardized approach for the first time. Meanwhile, a proposed five-year international clinical trial would examine whether eating nuts before meals can reduce the risk of developing diabetes—a potential game-changer for global public health.

6

Health Claims

The panel discussion on health claims offered valuable insights into how scientific evidence is evaluated by authorities in Europe and North America. Experts highlighted the importance of clearly defined ingredients and human intervention studies. The framework is clear: health claim applications need to be evidence-based and robust.

7

Dried Fruits and Bone Health

Dried fruits are known for their health-promoting bioactive compounds, including fiber and phenolics. Prunes in particular are gaining recognition for their role in supporting bone health. They have shown positive effects on bone density and inflammation reduction in postmenopausal women. These findings could pave the way for new dietary strategies for maintaining bone strength naturally.

8

Biomarkers and the Gut Microbiome

A new frontier in nutritional science lies in biomarkers of food consumption. These are objective indicators that help measure dietary intake more accurately. Promising work is underway to validate biomarkers that could replace self-reported data in future studies. Parallel research is exploring how nut consumption influences the gut microbiome, with early evidence linking certain microbial changes to improved cognitive function.

9

Sustainability and Upcycling

Life cycle assessment data show that while nuts have a relatively high water footprint, their environmental impact per serving is significantly lower when nutritional value is factored in. Researchers also showcased innovative uses of nut co-products, from hulls to skins, as valuable ingredients for food and nutraceutical applications, helping the sector reduce waste and enhance circularity.

10

Nuts and the Brain

One of the most dynamic topics at NUTS 2025 was the link between nut consumption and brain health. A recent clinical trial suggests that regular nut intake may improve vascular function and memory in older adults. Other studies point to potential benefits for mental wellbeing, including reduced risk of depression. These findings add to the growing understanding of nuts as a "brain-friendly" food group.



Conclusions and Future Outlook

NUTS 2025 brought together a dynamic mix of new and familiar faces, highlighting the growing scientific interest in nuts and dried fruits as nutritional powerhouses. Compared with the previous edition, this year's program placed greater emphasis on emerging research areas, with particular focus on cognition, microbiota, and metabolomics.

From the discussions, three priority themes for future research clearly emerged: cognitive health, gut microbiota, and diabetes prevention. A highlight of the event was the proposal for a multi-center, multi-continent clinical trial to investigate the impact of nut consumption on diabetes prevention—a study that could have far-reaching implications for global health and pave the way for future health claims.

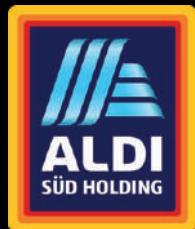
A white paper summarizing the conference's key findings and insights will be published in a scientific journal, providing a definitive reference for researchers and clinicians in the years to come. ■



KAROLINA HOFSTÄTTER

BUYING MANAGER GLOBAL SOURCING
ALDI SÜD GROUP
AUSTRIA

Karolina Hofstätter is a Buying Manager in the Global Sourcing Department of the ALDI SÜD Group, where she leads sourcing strategies and risk management for a diverse nut portfolio. With a strong focus on market dynamics and sustainability, she aims to ensure long-term supply chain resilience and responsible sourcing. Over the years, she has gained extensive experience across various departments within the company, including both sales and procurement. Her procurement background spans several product categories, with a strong focus on fresh products. She is passionate about collaboration and continuous learning within the global nut and dried fruit industry.



“ By embedding sustainability into our sourcing, we protect our supply chains and ensure long-term value for our customers. ”

The ALDI SOUTH Group operates in diverse markets. What are the key factors influencing your global sourcing strategy for nuts and dried fruits?

Our sourcing strategy is shaped by the complexity of the nut and dried fruit market itself. From seasonality and climate sensitivity to evolving geopolitical landscapes—we use our experience of the market and close partnerships throughout the supply chain to navigate these shifting dynamics effectively. It's not just about securing supply at the right price, it's about building resilient, future-ready supply chains that support long-term sustainability. Staying close to the source helps us make better, more informed decisions that benefit both our business and our customers.

What challenges do you face in securing a stable and sustainable supply of nuts and dried fruits across different origin countries, and how do you address these challenges?

There are a number of challenges we have to face. We're increasingly dealing with the effects of climate change, socioeconomic shifts in producing countries, and limited transparency in some supply chains. These can affect availability, quality, and price. To manage this, we work closely with suppliers to build long-term, trusted relationships. We invest time on the ground, increase our market presence, and share knowledge to anticipate and mitigate risks. Collaboration is key—by working together, we can build supply chains that are both stable and sustainable, even in uncertain times.

Sustainability is a growing priority in global sourcing. What is important for creating responsible nut and dried fruit supply chains?

Transparency is fundamental. To source responsibly, we need to understand exactly where our products come from and how they're produced. We rely on open and constructive relationships with our suppliers to gain this visibility and ensure that social and environmental standards are upheld. By working side-by-side, we can

identify risks, drive improvements, and ensure our sourcing practices protect both people and the planet, all while delivering high-quality products to our customers.

Can you share examples of initiatives or partnerships that the ALDI SOUTH Group has implemented to promote sustainable sourcing in origin countries?

We're taking a long-term, strategic approach by working with suppliers to enhance traceability and transparency. These efforts underpin initiatives like Human Rights Impact Assessments and ALDI Sustainability Assessments. We're also building broader partnerships, engaging with supply chain actors to create more resilient and responsible sourcing models. The goal is to move from short-term buying to shared value creation, where sustainability and quality reinforce each other.

How does the ALDI SOUTH Group balance cost considerations with sustainability requirements when making global sourcing decisions?

Balancing cost and sustainability is a constant focus. We know our customers expect high-quality products at the best possible price and we're committed to delivering just that. But we also believe that investing in sustainability is essential to securing the future of our food systems. Climate change, resource scarcity, and human rights risks are already affecting raw material availability. By embedding sustainability into our sourcing, we protect our supply chains and ensure long-term value for our customers.

How does your team collaborate with farmers and suppliers in origin countries?

We believe the strongest supply chains are built on trust and mutual understanding. That means being present, listening, and learning from those at the origin. Our teams spend time in the field, understanding local challenges and opportunities, and working collaboratively to find solutions. It's not about imposing requirements; it's about building

partnerships that benefit everyone involved. By growing together, we strengthen the entire chain and ensure consistent quality for our customers.

Climate change is increasingly affecting agricultural production. How is the ALDI SOUTH Group adapting its sourcing strategies to address climate-related risks in the nut and dried fruit supply chain?

Climate change is already reshaping how and where food can be produced. As a result, we're adapting our sourcing by diversifying origins, supporting suppliers in adopting climate-resilient practices, and improving our forecasting to respond to changing harvest patterns. At the same time, we're working toward reducing emissions by committing to science-based targets across our own operations and our wider supply chains. Sustainability and climate resilience are now business-critical, and our goal is to be proactive, not reactive, in how we respond.

Looking ahead, how do you see the global sourcing landscape for nuts and dried fruits evolving, and what is the ALDI SOUTH Group doing to prepare for these changes?

The sourcing landscape is evolving fast, with increasing expectations around sustainability, transparency, and resilience. While these are all real challenges, we see this as an opportunity to transform the way we work. At ALDI, we're investing in people, partnerships, and better data to help us make more informed decisions and stay agile. Buying isn't just about negotiating prices anymore; it's about shaping the future of food in a way that's responsible, competitive, and aligned with what our customers care about. 

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Macao 2026: The Place to Meet the Entire Nut & Dried Fruit Industry

**The Congress
Organizing Committee
looks forward to seeing
you in Macao!**

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macao

43rd INC WORLD NUT AND
DRIED FRUIT CONGRESS
MAY 12-14, 2026

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presidents & CEOs

70+

exhibitors & sponsors

60+

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& buffet lunch

2

official hotels

10

product round
tables

65+

countries

2

keynote speakers

3

evening social
events

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Macao: The Vibrant City Where East Meets West



Country: China

Population: 1.4 billion

Weather: In May, Southeast China (Macao) sees daytime temperatures around 29°C (84°F) and nighttime lows near 24°C (75°F). As this can be the start of the rainy season, humidity can be noticeable, so light, breathable clothing is recommended.

Airports: Depending on where you're coming from, Macao can be reached via Macao International Airport for regional flights, Hong Kong International Airport with a short transfer for international travelers, or Zhuhai Jinwan Airport across the border for travelers from mainland China.

Macao stands as a dynamic crossroads of East and West – a global hub where tradition meets innovation. With its strategic location, world-class infrastructure, and spirit of collaboration, it provides the perfect stage for international business where the nut and dried fruit industry can come together to connect and grow.

Beyond its business appeal, Macao captivates visitors with its rich cultural tapestry, stunning heritage sites, and world-renowned cuisine. The city's lively festivals and unique charm create a vibrant and inspiring atmosphere for the INC Congress, ensuring every moment is both memorable and meaningful.





Galaxy Resort: An All-in-One Congress Venue

Galaxy Resort, located on the Cotai Strip, is a world-class destination where luxury meets excitement. From striking architecture to exceptional dining and entertainment, the resort offers an inspiring setting for both business and leisure.

Inside the resort, every detail is designed to impress. Guests can enjoy expansive leisure facilities, including pools, a private beach, spa and wellness centers, and vibrant nightlife. Galaxy Resort also offers luxury shopping and exceptional dining, with top international brands and award-winning restaurants. With its seamless blend of sophistication and comfort, Galaxy Resort is a premier destination that perfectly balances business, relaxation, and unforgettable experiences.



Photo © Galaxy Entertainment Group

Galaxy International Convention Center and Official Hotels

Renowned for its exceptional facilities and state-of-the-art technology, the Galaxy International Convention Center will serve as the main venue for the Congress, offering delegates a convenient and inspiring setting for insightful sessions and networking. At its heart, Nutfruit Plaza will feature up to 50 booths, dedicated meeting zones, and food and beverage stations designed to foster connection and collaboration. Connected to the venue, **Andaz Macao** is a luxurious lifestyle hotel that blends modern design, local culture, and upscale amenities making it a standout choice for both leisure and business travelers. Conveniently located just across the road from the Galaxy International Convention Center, the **JW Marriott Macao** is a landmark luxury hotel offering elegant design, spacious accommodation, and exceptional facilities, ensuring a sophisticated and comfortable stay.

Andaz Macao 5*

attached to Galaxy International Convention Center
Room & breakfast from MOP\$ 1,870



Photo © Galaxy Entertainment Group

JW Marriott Hotel Macao 5*

across the road from the Galaxy International Convention Center.
Room & breakfast from MOP\$ 2,750



Photo © JW Marriott Hotel Macau

Golf Day

May 11, 2026

On May 11, the day before the INC Congress, join us at Macao International Golf Club for a day of outdoor fun and networking with industry peers, an ideal warm-up for a fruitful congress experience.



Photo © Macao International Golf Club

Macao International Golf Club

The INC's traditional pre-congress round of golf will take place at Macao International Golf Club. Set in the vibrant Cotai Reclamation Area, the Macao International Golf Club has been a premier golfing destination since 2004. Spanning 175 acres, this stunning 18-hole, par-71 championship course, designed in the classic international coastal style, has been recognized as one of the year's top coastal courses by China Golf magazine. With its state-of-the-art, multi-functional practice facilities, the club promises endless swing fun and unforgettable experiences for golfers and enthusiasts alike.

Sponsored by Valley Pride



Tours for Accompanying Persons

On May 12 and 13, two fantastic tours for accompanying persons will showcase the *crème de la crème* of Macao, revealing its rich traditions alongside the vibrant, modern life of this captivating region.

Macao Tour May 12, 2026

Discover the charm and culture of Macao on a guided tour filled with history, flavor, and local character. Wander through beautiful heritage sites, enjoy stunning city views, and experience the blend of East and West that defines this vibrant destination. From iconic landmarks to hidden gems, every stop offers a new perspective on Macao's rich past and lively present. With expert guides, comfortable transport, and delicious local treats along the way, this is the perfect way to spend an unforgettable day exploring the city.



Photo: Ruins of Saint Paul's

Cotai and Taipa Cultural Tour May 13, 2026

Step into history with a visit to A-Ma Cultural Village on Coloane Island, close to the world's tallest statue of the goddess A-Ma. The tour will take people through the charming Coloane Village, to savor the world-famous Portuguese egg tarts at Lord Stow's Bakery and admire historic landmarks like the pastel-yellow Chapel of St. Francis Xavier. The beautifully restored Taipa Houses Museum showcases charming colonial villas, followed by a stroll along the vibrant Rua do Cunha, lined with colorful buildings and traditional Chinese temples. A perfect blend of culture, flavors, and scenic charm to create an unforgettable day.



Photo: A-Ma Cultural Village



Preliminary Program

The INC Congress will provide ample opportunities for attendees to network, share knowledge and gain insight into the latest developments in the sector. Further details will become available as the event approaches.

Sunday, May 10		
9:00 am – 4:00 pm INC LEADERSHIP MEETINGS		12:00 pm – 4:30 pm CONGRESS REGISTRATION
Monday, May 11		
7:00 am – 2:00 pm GOLF DAY	8:00 am – 4:30 pm CONGRESS REGISTRATION	9:00 am – 5:00 pm INC SUBCOMMITTEE MEETINGS
Tuesday, May 12	Wednesday, May 13	Thursday, May 14
7:15 am – 4:30 pm CONGRESS REGISTRATION	8:00 am – 4:30 pm CONGRESS REGISTRATION	8:00 am – 2:00 pm CONGRESS REGISTRATION
9:00 am – 3:00 pm TOUR FOR ACCOMPANYING PERSONS	9:00 am – 3:00 pm TOUR FOR ACCOMPANYING PERSONS	
8:00 am – 4:30 pm Nutfruit Plaza ALL-DAY COFFEE & EXHIBITION BOOTHS		
Nutfruit Plaza MEETING AREA Sponsored by Al Jameel International 		
8:00 am – 8:30 am MORNING COFFEE Sponsored by Almond Board of California 	8:00 am – 8:30 am MORNING COFFEE Sponsored by Blue Diamond Growers 	8:00 am – 8:30 am MORNING COFFEE Sponsored by Guangdong Nan Xing Rainbow Nut Co., Ltd. 
8:30 am – 9:30 am CONGRESS OPENING	8:30 am – 9:30 am WALNUTS ROUND TABLE	8:30 am – 9:30 am HAZELNUTS ROUND TABLE
9:30 am – 10:30 am ALMONDS ROUND TABLE	9:30 am – 10:30 am BRAZIL NUTS, PINE NUTS, AND PEANUTS ROUND TABLE	9:30 am – 10:30 am DATES, APRICOTS & FIGS ROUND TABLE
10:30 am – 11:00 am COFFEE BREAK Sponsored by Almond Board of California	10:30 am – 11:00 am COFFEE BREAK	10:30 am – 11:00 am COFFEE BREAK
11:00 am – 12:00 pm RAISINS, PRUNES & CRANBERRIES ROUND TABLE	11:00 am – 11:45 am PECANS ROUND TABLE	11:00 am – 11:15 am INC AWARDS: SUSTAINABILITY & INNOVATION
12:00 pm – 12:45 pm NUTRITION RESEARCH SEMINAR	11:45 am – 12:30 pm KEYNOTE SPEAKER	11:15 am – 12:15 pm CASHEWS ROUND TABLE
12:45 pm – 1:30 pm KEYNOTE SPEAKER	12:30 pm – 1:30 pm PISTACHIOS ROUND TABLE	12:15 pm – 1:00 pm MACADAMIAS ROUND TABLE
1:30 pm – 3:00 pm WORKING BUFFET LUNCH Sponsored by Three Squirrels 	1:30 pm – 3:00 pm WORKING BUFFET LUNCH Sponsored by Setton Pistachios of Terra Bella 	1:30 pm – 3:00 pm WORKING BUFFET LUNCH Sponsored by Royal Nuts 
3:00 pm – 4:00 pm SPONSORED PANEL SESSIONS Sponsored by Anysort & Laitram Machinery  	3:00 pm – 4:00 pm SPONSORED PANEL SESSIONS	
6:00 pm – 8:00 pm WELCOME COCKTAIL Oasis Ballroom & Grand Resort Pool Deck Sponsored by Qiaqia Food Co. Ltd. 	7:00 pm – 10:00 pm (Buses depart at 6:30 pm) CASUAL BUFFET DINNER Macao Tower Sponsored by Wonderful Pistachios & Almonds 	6:30 pm – 12:00 am COCKTAIL, GALA DINNER AND BALL Hall C Sponsored by Chilenut 



On-site Technical Visit

Enhance your INC Congress experience by joining the industry's premier hands-on learning experience in China. All congress attendees are welcome to register for the INC On-site Technical Visit.

The 2026 INC On-site Technical Visit provides an exceptional opportunity to gain firsthand insights into China's rapidly evolving nut and snack industry. Participants will experience immersive interactions with leading companies ChaCha Food and Three Squirrels, recognized for their pioneering approaches to product development, supply chain efficiency, and consumer engagement. Beyond observing operational excellence, attendees will explore how these entities integrate advanced technologies, sustainability practices, and market-driven strategies to maintain leadership in a competitive global landscape.

Taking place from May 9-11, 2026, this three-day program concludes just in time to continue to Macao for the INC Congress the following day —making it the perfect way to kick off an inspiring week of industry learning and networking.

PRELIMINARY PROGRAM		
May 9	May 10	May 11
<ul style="list-style-type: none"> Visit to ChaCha Food Headquarters Round table chat Lunch Visit to ChaCha Food pecan farm Transfer to Chu'zhou Visit to ChaCha Food nuts factory Dinner Transfer to Wuhu Overnight in Wuhu 	<ul style="list-style-type: none"> Visit to Three Squirrels Headquarters and theme park Lunch Visit to Three Squirrels factory Round table chat Transfer to Nanjing Dinner Overnight in Nanjing 	<ul style="list-style-type: none"> Transfer to Nanjing Lukou Airport Flight to Hong Kong Visit to the port of Hong Kong Lunch End of the course

ChaCha Food



Photo: ChaCha Food, Factory



Photo: ChaCha Food, Headquarters

Three Squirrels



Photo: Three Squirrels, Factory

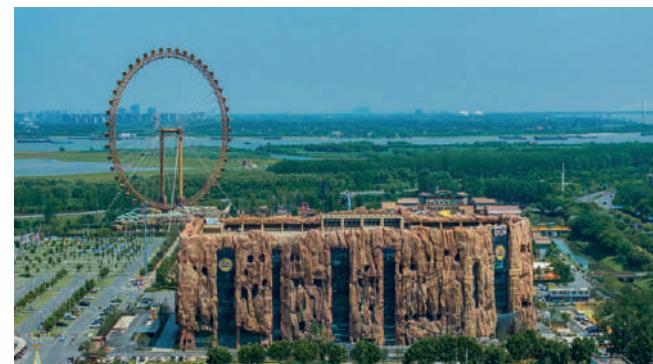


Photo: Three Squirrels, Theme Park



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Elevate your brand, enhance your reputation and tap into an environment fully focused on the nut and dried fruit industry. Secure a sponsorship opportunity and showcase your brand to 1,200+ world-class industry leaders. Sponsorship packages and exhibition booths are still available —visit the congress website to explore your options!



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INC Sustainability Institute: Setting the Standard for the Industry

The INC Sustainability Institute aims to position the INC and its members as the global leaders in pioneering and advancing sustainable practices across the nut and dried fruit industry.

The Institute provides expert advice, practical resources, and ongoing support, driven by three core initiatives—Data Hub, INC Certification, and Financial Services—each designed to address the sector's most pressing needs. These initiatives are carefully tailored to reflect the unique challenges and characteristics of the global nut and dried fruit industry. Through these efforts, the Institute positions both INC members and the wider sector as leaders in sustainability.

Key objectives of the INC Sustainability Institute are:



PROMOTE SUSTAINABLE GROWTH

Lead and inspire the widespread adoption of responsible sustainable practices throughout the global nut and dried fruit industry, driving long-term impact.



PROVIDE KEY TOOLS AND RESOURCES

Empower companies with practical solutions and frameworks that enable them to implement sustainability effectively within their operations.



GLOBAL RECOGNITION WITH INC CERTIFICATION

Position INC members as global leaders in sustainability through the INC Sustainability Certification, the trusted standard for sustainability leadership within the sector.



KNOWLEDGE SHARING THROUGH THE DATA HUB

Enhance stakeholder engagement and foster industry-wide collaboration by providing a centralized platform for sharing sustainability insights, metrics, and best practices.



SUPPORT INNOVATION AND IMPACT

Support INC-certified companies in accessing sustainability-linked loans, encouraging investment in sustainable initiatives and promoting the long-term growth of the industry.

The three core projects of the Institute are:

DATA HUB

The Data Hub is a centralized platform designed to equip certified INC members with the insights they need to lead in sustainability. By consolidating the latest scientific research, industry programs, and performance metrics, the Institute is creating a powerful tool that supports informed decision-making, fosters transparency, and enables measurable progress across the sector.

This resource offers easy access to curated data and practical examples of sustainable innovation. As the Data Hub evolves, the Institute will continue to expand its content and develop tailored resources to support members in adopting best practices and driving continuous improvement.

CERTIFICATION PROGRAM

A major milestone in the Institute's work is the INC Sustainability Certification. This B2B certification, that takes into consideration Environmental, Social and Governmental dimensions, prioritizes sustainability actions, and offers a unified and credible framework to promote sustainability practices across the sector. Developed by the industry for the industry, the program sets clear standards for three key operator categories: growers, processors and manufacturers, and global trade specialists.

To support the global adoption of the certification and ensure its long-term success, the Institute is implementing a comprehensive strategy. This includes establishing strategic partnerships with in-country entities to facilitate implementation and increase awareness. Furthermore, it is seeking formal recognition from major retailers and manufacturers to enhance credibility and encourage uptake across international markets. Additionally, the Institute is actively participating in global industry events to raise visibility and foster engagement with stakeholders worldwide.

FINANCIAL SERVICES

The Institute is working to establish formal recognition of its certification with financial institutions that offer sustainability-linked loans. By positioning the INC Certification as a qualifying standard, the Institute aims to facilitate certified members access to preferential financing terms tied to verified sustainability performance. This alignment of financial incentives with responsible practices encourages investment in initiatives that drive long-term industry growth. 

Take the Lead in Sustainable Excellence

Set your company apart with INC Certification —the trusted mark of verified sustainability in the nut and dried fruit industry.

WHY GET CERTIFIED?

- **Competitive Market Differentiation**

Certification helps your company stand out, opening doors to new business opportunities.

- **Global Standards Alignment**

Aligns with ESG expectations and validates your sustainability efforts.

- **Credibility & Trust**

Provides a respected seal that showcases your commitment and leadership.

WHO CAN APPLY?

INC member companies who are:

- **Growers**

- **Processors & Manufacturers**

- **Global Trade Specialists**

Take the First Step Toward Certification
Visit sustainability.nutfruit.org
to begin your journey.



Master the World of Nuts & Dried Fruits

Unlock Your Career Potential with the INC Academia!

Why join us?

-  Over 350 industry leaders have trusted us
-  Programs developed by leading institutions and industry experts
-  Two program options tailored to your professional experience



Basic Program on Nuts & Dried Fruits



Advanced Program on Nut & Dried Fruits



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academia.nutfruit.org

Led by respected industry and academic experts, **over 350 students from leading companies** have already benefited from our extensive program. The INC Academia offers an array of invaluable insights that will help students advance their careers and bring valuable expertise to companies.

INC Pavilion at Anuga 2025: Bringing Nuts and Dried Fruits Into the Spotlight

With 20 co-exhibitors from 12 countries, the INC Pavilion showcased leading nut and dried fruit businesses at one of the world's most important food and beverage trade fairs.

The INC Pavilion once again served as the central hub for the global nut and dried fruit industry at Anuga 2025. It offered co-exhibitors a prime platform to showcase their products, forge new business connections, and strengthen relationships with international buyers and decision-makers. For the sector, it was a dynamic space that highlighted innovation, collaboration, and the industry's ongoing growth on the global stage.

This edition also marked the showcase of the INC Sustainability Certification, the first certification designed exclusively for the global nut and dried fruit sector, tailored to the unique challenges and characteristics of the industry.

A further highlight of the INC Pavilion was the official INC Cocktail Event, sponsored by ATCO. This exclusive gathering provided INC members with the opportunity to enjoy top-quality drinks, canapés, and an assortment of nuts and dried fruits while networking in a professional yet relaxed setting. The event reinforced the INC Pavilion's role as a key meeting point for the sector.

Anuga 2025 marked a record-breaking edition of the food trade fair, spanning 290,000 m², with around 8,000 exhibitors from 110 countries and welcoming over 145,000 visitors from more than 190 nations. The trade audience at the INC Pavilion was especially strong from Great Britain, Italy, the Netherlands, and Spain, while outside Europe, Brazil, China, Japan, Canada, and the USA were among the top represented nations. This global representation underscores the INC Pavilion's importance as a hub for international business and collaboration in the nut and dried fruit sector.

**Thank you for supporting the
INC Pavilion at Anuga!**



INC PAVILION in Numbers

20
co-exhibitors

12
countries

320 m²
pavilion space

ANUGA in Numbers

145,000+
visitors

8,000+
exhibitors

110
countries



INC Multi-Country Dissemination Plan: Building a New Generation of Nut & Dried Fruit Lovers

Across the world, Gen Z is redefining how and why we eat. With its appetite for authenticity, health, and creativity, it is changing food culture, and the INC is making sure nuts and dried fruit are part of that story.

Through its Multi-Country Dissemination Campaigns, INC has launched a powerful movement designed to spark daily nut and dried fruit consumption among young consumers in key growth markets like China, India, and Latin America. These vibrant campaigns are doing more than promoting a product, they're aiming to build lifestyle centered around wellbeing.

Since its launch in 2022, the program has achieved remarkable global impact, reaching over 666 million Gen Z consumers and driving 12.7 million social media engagements across the three regions. Together, these efforts have generated more than 450,000 new followers, demonstrating the growing interest of Gen Z consumers in nuts and dried fruit.

METRIC	Latin America (since 2024)	China (since 2022)	India (since 2023)	TOTAL
Reach	254.7M reach	244.28M reach	197.2M reach	666M
Engagement	1.81M interactions	2.74M interactions	8.61M interactions	12.7M
Followers	233.3K new followers	91.6K new followers	142.1K new followers	452.85K

The initiative's strength lies in its ability to meet Gen Z where they are: online, inspired, and eager to share. As we come to the end of 2025 let's look back on how we have done that.

CHINA



Own Your Now

In China, the campaign has built itself around Gen Z's desire for authenticity, aspiration, and self-expression. Collaborations with influencers on platforms like Douyin, have been key to driving engagement through lifestyle storytelling that position nuts and dried fruit as both fashionable and functional. Recipes also play a central role, showcasing practical yet creative ways to incorporate nuts and dried fruit as key ingredients rather than just snacks. From nut-based flours to homemade nut milks and trail mixes, the content demonstrates the versatility of these products.



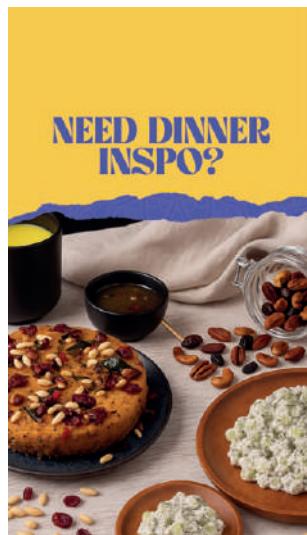
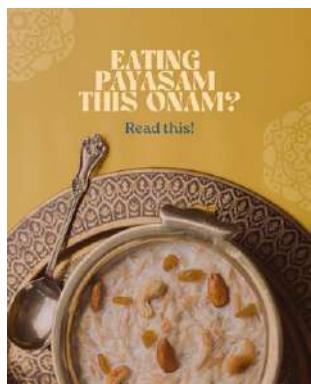
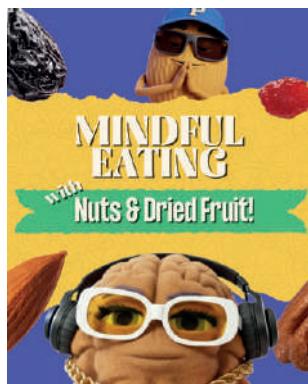


INDIA



It's Time to Make a Switch

In India, the focus is on wellbeing, plant-based protein, and the message that it's time to embrace healthier lifestyle habits for energy and fun, incorporating nuts and dried fruit as part of the switch. The campaign combines upbeat digital story telling with quick, accessible recipe ideas—also condensed into a downloadable e-book—for breakfasts, post-workout snacks, and on-the-go energy boosts, where our Nut Tunes character have also been incorporated for a modern twist. Influencers and nutritionists have also played a central role in showcasing how small mindful changes can make a big difference.



LATIN AMERICA



Nut Tunes: Behind the Scenes

In Latin America, we tapped into the region's vibrant culture with Latin Beats, bringing our Nut Tunes characters to life through catchy videos and Spotify Playlists that reflect energy and rhythm of Gen Z life. Recipe content has been integrated into the campaign, showcasing how nuts and dried fruit can add fun, flavor and nutrition to local favorites. This fusion of music and food culture is what has successfully introduced nuts and dried fruit not just as a snack, but a lifestyle staple for a generation of new consumers in the region.



Driving Growth Beyond 2025

This global effort reflects INC's broader mission: To drive sustainable and innovative growth in the consumption and supply of nuts and dried fruit worldwide by promoting their health benefits and natural goodness. By thoughtfully incorporating cultural nuances, inspiring recipes and leveraging Gen Z's preferred social media formats—short, engaging video content and influencer collaborations—these campaigns demonstrate that a handful of nuts and dried fruits can be more than just a snack; they can be an essential part of a balanced, modern-day lifestyle. The campaign's intention extends far beyond digital metrics; by embedding nuts and dried fruit into the rhythm of Gen Z's daily lives, INC is helping the future growth of the sector and inspiring healthier habits across borders.

In 2026 and beyond, the Multi-Country Dissemination Campaigns will continue driving impact in the key strategic regions while expanding into new market Southeast Asia. With Southeast Asia's vast Gen Z population, INC will leverage fresh insights to launch a dynamic campaign designed to make nuts and dried fruits a permanent part of Gen Z's lifestyle in the region. Stay tuned to see how we capture this key strategic growth market. 



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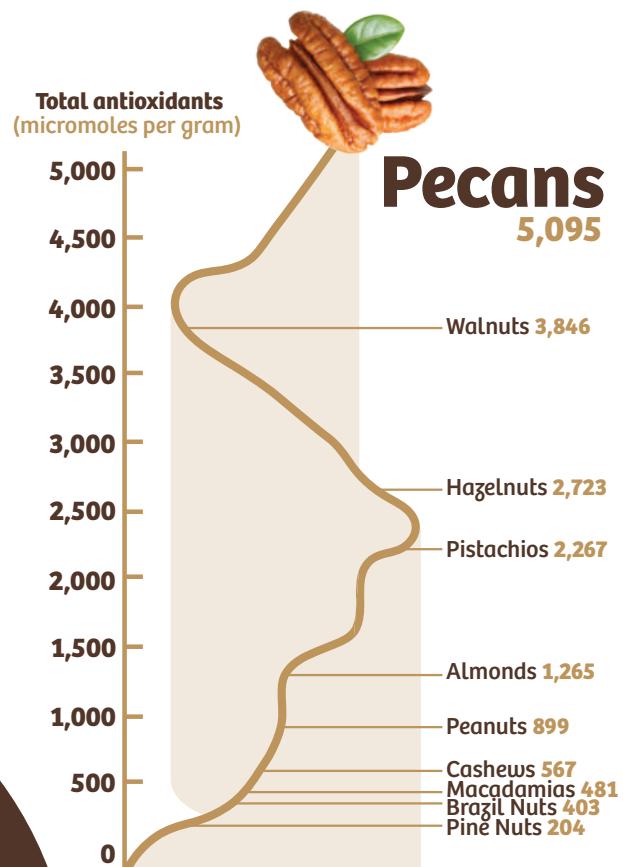
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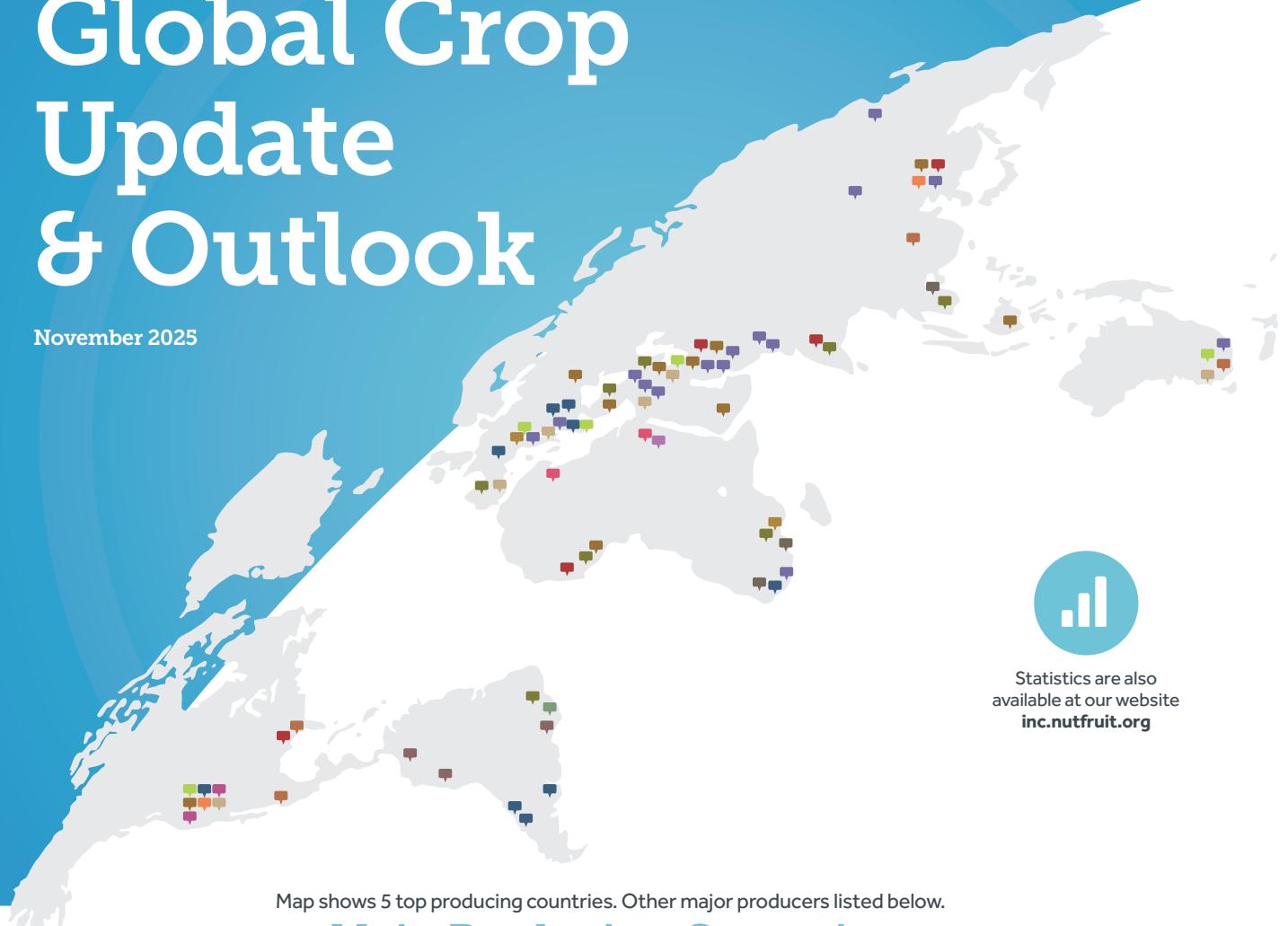
#1 Super Nut

Pecans contain
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Global Crop Update & Outlook

November 2025



Map shows 5 top producing countries. Other major producers listed below.

Main Producing Countries

Almonds	Brazil Nuts	Cashews	Hazelnuts	Macadamias	Pecans	Pine Nuts	Pistachios					
USA Australia Spain Türkiye Italy Morocco China	Portugal Tunisia Chile Iran Greece	Bolivia Peru Brazil	Côte d'Ivoire Cambodia India Tanzania Viet Nam Nigeria Guinea-Bissau	Ghana Guinea Burkina Faso Brazil China Mozambique Indonesia Senegal	Türkiye Chile USA China Brazil Spain Azerbaijan Italy Georgia	Iran France USA Australia Colombia Kenya USA Guatemala Malawi	South Africa Viet Nam China Brazil Colombia USA Argentina Malta	USA Mexico South Africa China Australia Brazil Argentina	China North Korea Russia China Afghanistan Pakistan Mongolia Turkey	Italy Portugal Spain Spain Syria Greece	USA Iran Turkey Syria Spain Greece	Australia Afghanistan China China Pakistan Mongolia Turkey
Walnuts	Peanuts	Dates	Dried Apricots	Dried Cranberries	Dried Figs	Prunes	Raisins Sultanas Currants					
China USA Chile Ukraine Romania Türkiye Iran	France India Argentina Spain Moldova Italy Portugal	China India Nigeria USA Senegal Argentina Brazil	Sudan Indonesia Ghana Viet Nam Côte d'Ivoire Nicaragua South Africa	Saudia Arabia Egypt UAE Tunisia Iran Algeria Iraq	Israel Morocco Jordan USA Oman Pakistan Mexico	Türkiye Uzbekistan Iran Takikistan Aghanistan China USA	South Africa USA Canada Chile	USA Canada Chile	Türkiye Iran Afghanistan Spain Greece	USA Chile France Argentina Serbia	South Africa Uzbekistan Argentina Afghanistan USA Greece	

Main producers by volume are listed; other producers may exist, and rankings may fluctuate seasonally.

The INC will continue updating the statistics in next issues of the *Nutfruit* magazine and newsletters.

Almonds

杏仁 / بادام / Almendra / Amêndoas / Amande / Badem

The information contained herein was prepared between late September and October 2025.



USA. As of this report, the industry was facing uncertainty over the size of this year's crop. The USDA NASS Objective Estimate projected a 3.0 billion lbs. (1.36 million metric ton) crop. However, according to the September Almond Board of California Position Report, the second report of the 2025/26 crop year (August 2025–July 2026), receipts totaled 992 million lbs. (approx. 450,000 metric tons) of kernel weight, down 4% year-on-year. Reports from growers and handlers indicated lighter yields, smaller kernels, and lower kernel recovery rates, particularly in early varieties like Nonpareil, which make up about 40% of the crop. These factors have fueled skepticism about the 3.0 B lbs. target, with consensus pointing towards a crop in the 2.55–2.80 B lbs. range (1.16–1.27 M MT). As harvest progressed into later varieties, overall quality was expected to be good.

Shipments 2024/25 of 2.646 billion lbs. (approx. 1.2 M MT) were the third largest in history, down 1.7% from 2023/24. Domestic shipments in 2024/25 totaled 671 million lbs. (approx. 305,000 MT) and were down 7.8% from the previous year. 2024/25 exports were the second largest ever at 1.975 billion lbs. (approx. 896,000 MT), up slightly over 2023/24. India continues as the largest export destination setting a new record at 423 million lbs. (approx. 192,000 MT). Even while exports to the Asia-Pacific region were flat to 2023/24, India outperformed with shipments being up 6% year-over-year. Shipment totals to Europe in 2024/25 were 651 million lbs. (approx. 295,000 MT), up 1% from the year prior. Middle East/Africa exports were down slightly (-3%) at 432 million lbs. (approx. 196,000 MT).

Australia. As reported by the Almond Board of Australia, the 2025/26 crop is expected to fall below pre-harvest estimates. This figure will be verified before the end of the year, but feedback from processors suggest it could be 10–15% down on the 155,500 MT cited in the updated table.

Demand for Australian almonds continues along the trajectory of last year's record sales of nearly 170,000 MT, and with strong buying interest from markets such as China, India, and Türkiye, another low carry-out is expected.

Spain & Portugal. According to industry sources, the 2025 harvest in both regions is expected to be lower than initially anticipated. In Spain, while the national associations' July 2025 forecast placed production at around 125,700 MT, more recent assessments point to an uneven outlook, with regional disparities. Based on updated reports, the overall crop was, as of this report, forecasted between 100,000 and 110,000 MT. In the south, particularly Extremadura and Andalucía, yields were falling short of expectations and volumes were below initial projections. Conditions in the Ebro Valley presented a more positive output. However, this region has also faced repeated weather events, including strong winds, heavy rainfall, and hailstorms associated with storm Gabrielle, which have disrupted the normal course of harvesting. In central Spain, the harvest appeared in line with expectations. Meanwhile, in the Mediterranean coastal dryland areas, yields were only average.

The Portuguese crop was also projected to turn out lower than expected due to adverse weather conditions. During the critical bloom period in March, more than a month of persistent rain and strong winds severely hampered pollination and caused significant flower and fruit drop. The prolonged wet conditions also prevented timely field treatments, fostering fungal diseases, resulting in an overall output below earlier expectations.

In terms of quality, the regional crop is good, with better calibers than last year and low share of halves and pieces. At the time of reporting, supply was being retained, which has driven in-shell prices to high levels. Availability of kernel was limited.

Estimated World Almond Production. Kernel Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
USA (M lbs.)*	503	2,627	3,130	484	484	2,700	3,184	625
USA (MT)	228,360	1,192,700	1,421,060	219,740	219,740	1,225,800	1,445,540	283,750
AUSTRALIA	24,000	163,148	187,148	18,000	18,000	155,500	173,500	18,000
SPAIN	21,900	105,000	126,900	12,000	12,000	105,000	117,000	10,700
TÜRKİYE	0	30,000	30,000	0	0	35,000	35,000	0
ITALY	1,000	21,000	22,000	1,000	1,000	22,400	23,400	1,100
MOROCCO	2,500	18,000	20,500	2,500	2,500	18,100	20,600	2,700
CHINA	0	16,800	16,800	0	0	17,300	17,300	0
PORTUGAL	0	27,300	27,300	0	0	15,000	15,000	0
TUNISIA	1,000	12,000	13,000	1,000	1,000	13,500	14,500	1,500
CHILE	0	8,000	8,000	0	0	12,800	12,800	0
IRAN	2,000	6,000	8,000	2,000	2,000	6,100	8,100	2,000
GREECE	700	6,000	6,700	0	0	5,000	5,000	0
OTHERS	0	16,200	16,200	0	0	16,500	16,500	0
WORLD TOTAL	281,460	1,622,148	1,903,608	256,240	256,240	1,648,000	1,904,240	319,750
WORLD CONSUMPTION (Supply-End. Stock)				1,647,368				

Sources 2024/25: Almond Board of California, Almond Board of Australia, Portugal Nuts, Aegean Exporters' Association, Italian National Institute of Statistics, Chilean Almond Board, Greek Nuts & Fruits Trade Association, and other INC sources. Sources 2025/26: Almond Board of Australia, Aegean Exporters' Association, Italian National Institute of Statistics, Chilean Almond Board, Greek Nuts & Fruits Trade Association and other INC sources. Season 2024/2025 starts as of 2024 harvest; and 2025/2026 as of the 2025 harvest in both hemispheres.*The US crop is adjusted for a 3.14% loss and exempt in 2024/25 and 2% in 2025/26.

Amazonia (Brazil) Nuts

巴西果 / جوز البرازيل / ब्राजील नट्स / Coquito de Brasil /

Castanhas do Brasil / Noix de Bresil / Brezilya fingigi



The information contained herein was prepared between late September and October 2025.

The Brazil nut market has continued much as expected this year. Prices reached record highs comparable to 2017, following a sharp reduction in production.

The drop in production is largely attributed to the extreme drought caused by El Niño, which also fueled the Amazon's worst fire season in nearly 20 years, when over 44 million hectares burned across the Brazilian Amazon. This drought back in 2024 is believed to have impacted both the size of the crop and the kernel size for the 2025 crop, with a much larger share of small kernels and far fewer Mediums and Large grades. Most production sites have closed around four months earlier than in a normal season.

On the demand side, reactions were mixed. In some regions, major consumers opted to hibernate their lines, fearing

not only prohibitively high shelf prices but also outright product unavailability. Others, who kept lines running and managed to secure supply, interestingly did not see a dramatic fall in demand, which remained relatively stable.

Looking ahead on the supply side, following a short year, there is hope that the trees will overcompensate and fruit more pods, potentially bringing the crop back towards the record levels of 2018. High prices are also likely to incentivize collectors to enter the forest earlier. Factories, having been shut for months, have had ample time for maintenance and will be ready to process as soon as material arrives.

Demand is equally eager for the first shipments. With the 2025 crop already sold out, buyers are now waiting for relief in both price and availability from the new 2026 crop.

Estimated World Amazonia (Brazil) Nut Production. In-shell Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
BOLIVIA	2,700	78,000	80,700	3,000	3,000	46,800	49,800	900
PERU	300	14,700	15,000	900	900	11,760	12,660	300
BRAZIL	900	7,500	8,400	300	300	4,500	4,800	300
WORLD TOTAL	3,900	100,200	104,100	4,200	4,200	63,060	67,260	1,500
WORLD CONSUMPTION (Supply-End. Stock)			99,900					

Estimated World Amazonia (Brazil) Nut Production. Kernel Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
BOLIVIA	900	26,000	26,900	1,000	1,000	15,600	16,600	300
PERU	100	4,900	5,000	300	300	3,920	4,220	100
BRAZIL	300	2,500	2,800	100	100	1,500	1,600	100
WORLD TOTAL	1,300	33,400	34,700	1,400	1,400	21,020	22,420	500
WORLD CONSUMPTION (Supply-End. Stock)			33,300					

Source: INC. Season 2024/25 refers to the marketing year from March 2024 to February 2025; and 2025/26 covers March 2025 to February 2026 (harvesting season December-March).

CAIBA
Amazon Products
SINCE 1946

Brazil Nuts
In Shell and Shelled/kernels
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Cashews

腰果 / کاجو / काजू / Anacardio / Castanhas de caju / Noix de caju / Kaju cevizi

The information contained herein was prepared between mid-September and October 2025.



Global Market Overview. The northern hemisphere cashew season has concluded, with export volumes up around 10% year-on-year by the end of July, improving raw nut availability for processors in India and Viet Nam. Processing peaked in both Asia and Africa in 2025 Q3, with kernel exports expected to rise in the following months, mainly to fulfill prior commitments, with Q3 and Q4 mostly covered by buyers. The first two weeks of September saw renewed buying interest to fill gaps for 2025 and in preparation for 2026, although longer-term commitments tend to be delayed until a suitable price becomes available. Demand remained firm in Europe, China, and the Middle East, depleting pipeline inventories for the first half of the year, while US imports—strong until mid-Q2—have since slowed due to higher tariffs and rising costs. India, meanwhile, has seen sluggish domestic demand since July, but consumption was expected to rebound with the onset of the festival season.

The global market was balanced between bullish drivers—including steady growth in EU and Chinese demand and the cautious release of Ivorian stock—and bearish risks, particularly weaker US demand, tariff impacts, cautious forward buying, and reduced retail promotion. With most northern hemisphere

crops already shipped and African harvests running late, supply dynamics from Tanzania and Mozambique in Q4 will be crucial.

Forecasts for upcoming crops in West Africa point to lower outputs due to weather conditions, though the decline is expected to be around 10% at most.

Asia. Viet Nam remains the world's processing hub, balancing reduced US demand with stronger exports to China and the Middle East. Shipments to Europe continued at a stable pace, with buyers showing greater interest on African kernels.

Eastern Africa. As per the African Cashew Alliance reports, in Tanzania, the season started by mid-September, later than expected. Early volumes were moving, with auctions expected to begin in late October and prices anticipated to be lower than last year. Mozambique was also facing a month delay due to climate conditions, with the season expected to open at the end of October. A strong crop was anticipated, both in terms of quantity and quality. Local processing is resurging, with kernel exports doubling from 6,000 metric tons in 2023 to 12,000 MT in 2024, supported by eight operating factories.

Estimated World Cashew Production. Raw Cashew Nut (RCN) · Metric Tons

Country	2024/2025				2025/2026*			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
CAMBODIA	n/a	800,000	800,000	n/a	n/a	850,000	850,000	n/a
INDIA	n/a	615,000	615,000	n/a	n/a	725,000	725,000	n/a
VIET NAM	n/a	340,000	340,000	n/a	n/a	300,000	300,000	n/a
CÔTE D'IVOIRE	n/a	1,200,000	1,200,000	n/a	n/a	1,250,000	1,250,000	n/a
NIGERIA	n/a	282,000	282,000	n/a	n/a	300,000	300,000	n/a
GUINEA-BISSAU	n/a	240,000	240,000	n/a	n/a	200,000	200,000	n/a
BENIN	n/a	250,000	250,000	n/a	n/a	250,000	250,000	n/a
GHANA	n/a	275,000	275,000	n/a	n/a	225,000	225,000	n/a
BURKINA FASO	n/a	145,000	145,000	n/a	n/a	150,000	150,000	n/a
GUINEA CONAKRY	n/a	145,000	145,000	n/a	n/a	150,000	150,000	n/a
SENEGAL	n/a	45,000	45,000	n/a	n/a	70,000	70,000	n/a
TOGO	n/a	105,000	105,000	n/a	n/a	70,000	70,000	n/a
GAMBIA	n/a	25,000	25,000	n/a	n/a	29,000	29,000	n/a
MALI	n/a	2,000	2,000	n/a	n/a	5,000	5,000	n/a
Subtotal Western Africa	n/a	2,714,000	2,714,000	n/a	n/a	2,699,000	2,699,000	n/a
Subtotal Northern Hemisphere	n/a	4,469,000	4,469,000	n/a	n/a	4,574,000	4,574,000	n/a
TANZANIA	n/a	425,000	425,000	n/a	n/a	500,000	500,000	n/a
MOZAMBIQUE	n/a	140,000	140,000	n/a	n/a	140,000	140,000	n/a
KENYA	n/a	5,000	5,000	n/a	n/a	5,000	5,000	n/a
Subtotal Eastern Africa	n/a	570,000	570,000	n/a	n/a	645,000	645,000	n/a
BRAZIL	n/a	160,400	160,400	n/a	n/a	146,000	146,000	n/a
INDONESIA	n/a	110,000	110,000	n/a	n/a	110,000	110,000	n/a
Subtotal Southern Hemisphere	n/a	840,400	840,400	n/a	n/a	901,000	901,000	n/a
OTHERS	n/a	56,600	56,600	n/a	n/a	58,400	58,400	n/a
WORLD TOTAL	n/a	5,366,000	5,366,000	n/a	n/a	5,533,400	5,533,400	n/a
WORLD CONSUMPTION (Supply-End. Stock)			5,366,000					

Source: INC. *Harvest from January 2025 through June 2025 (northern hemisphere) and from Sept 2025 through February 2026 (southern hemisphere).

Hazelnuts

榛子 / بندق / हेजलनट्स / Avellana / Avelās / Noisette / Findik

The information contained herein was prepared between late September and October 2025.



Türkiye. At the time of reporting, the Turkish hazelnut market was characterized by uncertainty, with the crop outcome still subject to varying projections. The 2025 crop is estimated below earlier expectations due to drought in western regions that had reduced yields, cracking results, and kernel size. While some industry sources anticipated around 550,000 MT in-shell, others were expecting about 450,000 MT. Larger calibers were expected to be limited, while smaller sizes were likely to remain available.

According to the Black Sea Exporters Association, 2024/25 exports closed at 309,000 MT (kernel basis), similar to the previous year. However, with prices having reached historic highs, much of the carryover was being withheld. With the elevated prices, exports were projected to fall, with weaker domestic consumption also anticipated.

Chile. The 2025 harvest exceeded earlier projections. Later processed batches maintained good quality and were expected

to enter the market, coinciding with the arrival of the northern hemisphere harvest. Continuing to align infrastructure with the growing production in the coming years will be essential to maintain position as a reliable counter-seasonal supplier.

USA. Growing conditions have been favorable in Oregon, albeit notably dry. This has resulted in very low kernel defects and humidity of early received nuts. In-shell sizing as well as kernel fill appeared to be normal. Rising prices and market uncertainty were anticipated to challenge domestic consumption and likely lead to large export shipments.

Italy. The 2025 crop was below potential due to premature fruit drop, a physiological disorder causing large losses. Lazio and Campania reported significant reductions. Climate change is considered a major contributing factor: erratic temperature, heat stress, spring frosts, drought and irregular rainfall all undermine pollination, seed development, aggravating the fruit drop issue.

Estimated World Hazelnut Production. In-shell Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
TÜRKİYE*	135,000	785,000	920,000	150,000	150,000	500,000	650,000	89,000
CHILE	2,600	58,500	61,100	1,500	1,500	120,700	122,200	2,000
USA	1,000	89,000	90,000	1,000	1,000	106,000	107,000	2,500
CHINA	2,000	55,000	57,000	1,500	1,500	80,000	81,500	2,000
AZERBAIJAN	4,000	65,000	69,000	0	0	72,000	72,000	3,000
ITALY	2,000	87,000	89,000	5,000	5,000	65,000	70,000	1,000
GEORGIA	1,400	45,000	46,400	500	500	43,000	43,500	500
IRAN	2,000	18,000	20,000	0	0	24,000	24,000	1,200
FRANCE	2,000	6,500	8,500	0	0	9,000	9,000	0
SPAIN	500	12,000	12,500	600	600	7,500	8,100	400
OTHERS	0	31,600	31,600	0	0	27,900	27,900	0
WORLD TOTAL	152,500	1,252,600	1,405,100	160,100	160,100	1,055,100	1,215,200	101,600
WORLD CONSUMPTION (Supply-End. Stock)				1,245,000				

Estimated World Hazelnut Production. Kernel Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
TÜRKİYE*	67,500	392,500	460,000	75,000	75,000	225,000	300,000	40,000
CHILE	1,120	25,700	26,820	660	660	53,100	53,760	880
USA	440	39,600	40,040	440	440	46,600	47,040	1,100
CHINA	800	22,000	22,800	600	600	32,000	32,600	800
AZERBAIJAN	1,500	24,700	26,200	0	0	27,300	27,300	1,140
ITALY	910	38,300	39,210	2,200	2,200	28,000	30,200	430
GEORGIA	500	15,750	16,250	175	175	13,700	13,875	160
IRAN	840	7,560	8,400	0	0	10,100	10,100	500
FRANCE	800	2,600	3,400	0	0	3,600	3,600	0
SPAIN	225	5,400	5,625	270	270	3,400	3,670	180
OTHERS	0	13,300	13,300	0	0	11,700	11,700	0
WORLD TOTAL	74,635	587,410	662,045	79,345	79,345	454,500	533,845	45,190
CONSUMPTION (Supply-End. Stock)				582,700				

*Some industry sources believe the 2024/25 carry-over is 10–20% higher, and others suggest it could be even more. The INC stands by the estimated carry-over as the other figures have not been able to be verified.

Sources 2024/25: Black Sea Hazelnut Exporters Association, Hazelnut Committee of Chile, China Chamber of Commerce for Import and Export of Foodstuffs, Georgian Hazelnut Growers Association, AEOFRUSE, and other INC sources. Sources 2025/26: China Chamber of Commerce for Import and Export of Foodstuffs, Georgian Hazelnut Growers Association, Iranian Ministry of Agriculture Jahad, AEOFRUSE, and other INC sources. Season 2024/25 starts as of 2024 harvest; and 2025/26 as of the 2025 harvest in both hemispheres.

Macadamias

夏威夷果 / مکدامیا / میکادامیا / Macadamia / Macadâmias / Macadamia / Makedemias cevizi



The information contained herein was prepared between late September and October 2025.

China. According to the Chinese Chamber of Commerce, the 2025 season was, at the time of reporting, expected to produce a record bumper crop, significantly above previous estimates and exceeding 100,000 metric tons at 3.5% nut-in-shell moisture content.

South Africa. As reported by Macadamias South Africa (SAMAC), production estimates for 2025 have been revised downward to around 81,660 MT in-shell (1.5% moisture content / 83,400 MT @ 3.5% m.c.), compared with earlier forecasts above 93,433 MT. Weather disruptions have led to lower yields and smaller nut sizes in certain regions. Despite this, long-term growth remains supported by expanding acreage and maturing orchards.

Australia. As per the Australian Macadamia Society reports, the 2025 crop is expected to reach 37,300-41,970 MT in-shell at 3.5% moisture placing pressure on kernel stock availability. The season has been severely impacted by

extended wet weather, particularly in NSW, with yields and kernel recoveries below pre-season expectations. In contrast, young orchards performed very well, showing promise for a much-improved season in 2026.

Kenya. For the 2025 season, quality was stronger early on and has eased later in the harvest, but overall production is on track to meet forecasts, with kernel styles and crack-out rates consistent with historical trends. Flowering and nut set for looked strong, with rainfall forecast for Q4 2025 expected to be average, setting the stage for a solid 2026 crop.

Exports have strengthened year-on-year, with kernel prices moving higher. Key destinations include the UK, EU, and China, while the US remains challenging due to tariffs and carry-over stocks, though some improvement is expected. Emerging demand from India and Southeast Asia also provides a positive outlook.

Estimated World Macadamia Production. In-shell Basis · Metric Tons

Country	2024				2025			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
CHINA	n/r	69,500	69,500	n/r	n/r	104,000	104,000	n/r
SOUTH AFRICA*	n/r	89,000	89,000	n/r	n/r	83,400	83,400	n/r
AUSTRALIA	n/r	53,950	53,950	n/r	n/r	39,635	39,635	n/r
KENYA	n/r	44,000	44,000	n/r	n/r	47,500	47,500	n/r
USA	n/r	15,000	15,000	n/r	n/r	15,500	15,500	n/r
GUATEMALA	n/r	10,000	10,000	n/r	n/r	12,000	12,000	n/r
MALAWI	n/r	8,700	8,700	n/r	n/r	10,000	10,000	n/r
VIET NAM	n/r	8,000	8,000	n/r	n/r	8,000	8,000	n/r
BRAZIL	n/r	6,500	6,500	n/r	n/r	4,500	4,500	n/r
COLOMBIA	n/r	1,100	1,100	n/r	n/r	1,150	1,150	n/r
OTHERS	n/r	17,100	17,100	n/r	n/r	18,200	18,200	n/r
WORLD TOTAL	n/r	322,850	322,850	n/r	n/r	343,885	343,885	n/r
ESTIMATED WORLD CONSUMPTION (Supply-End. Stock)			322,850					

Estimated World Macadamia Production. Kernel Basis · Metric Tons

Country	2024				2025			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
CHINA	n/r	17,400	17,400	n/r	n/r	30,200	30,200	n/r
SOUTH AFRICA*	n/r	28,800	28,800	n/r	n/r	26,700	26,700	n/r
AUSTRALIA	n/r	17,300	17,300	n/r	n/r	12,700	12,700	n/r
KENYA	n/r	8,800	8,800	n/r	n/r	9,500	9,500	n/r
USA	n/r	3,300	3,300	n/r	n/r	3,400	3,400	n/r
GUATEMALA	n/r	2,000	2,000	n/r	n/r	2,400	2,400	n/r
MALAWI	n/r	2,200	2,200	n/r	n/r	2,500	2,500	n/r
VIET NAM	n/r	2,000	2,000	n/r	n/r	2,200	2,200	n/r
BRAZIL	n/r	1,625	1,625	n/r	n/r	1,125	1,125	n/r
COLOMBIA	n/r	220	220	n/r	n/r	230	230	n/r
OTHERS	n/r	4,300	4,300	n/r	n/r	4,500	4,500	n/r
WORLD TOTAL	n/r	87,945	87,945	n/r	n/r	95,455	95,455	n/r
ESTIMATED WORLD CONSUMPTION (Supply-End. Stock)			87,945					

Sources: China Chamber of Commerce for Import and Export of Foodstuffs, Macadamias South Africa, Australian Macadamia Society, Brazilian Macadamia Association, and other INC sources. Reported at 3.5% nut-in-shell moisture content. n/r: not reported or not relevant. *Macadamias South Africa reports at 1.5% NIS m.c., the 3.5% figure is based on INC calculations.

Pecans

碧根果 / بقان / پکان / Pacana / Nozes / Noix de pécan / Pekan cevizi

The information contained herein was prepared between late September and October 2025.



USA. Based on the average of the three industry pre-harvest crop forecasts, the US was, at the time of reporting, expected to produce a crop of 129,502 metric tons, in-shell basis. While this is 7.7% larger than the 2024/25 crop, overall supply was expected to be about the same as beginning stocks were anticipated to be 12.6% less versus the prior season. However, based on data from the American Pecan Council, it should be noted that 85.2% of the beginning stock were committed to supply 2024 contract obligations. Harvest was expected to begin on time in mid-to-late October. Based on pre-harvest cuttings, quality was expected to be good, which should increase the percentage of available halves.

Mexico. As of this report, the 2025 crop was facing challenges from drought, particularly in Chihuahua, though Sonora was set for an "on year" that is anticipated to offset part of the decline. National production, which has eased over the last three seasons, is projected to remain under pressure, but good quality and steady demand continue to shape current market dynamics.

South Africa. By late September, a very favorable season was ending, with quality, size, yields, and logistics all performing well. In-shell exports continue at a strong pace—predominantly destined for China—while cracking was underway to meet demand, with roughly 60% exported to various international markets and about 40% consumed domestically.

China. Severe floods during the bloom period impacted nut set, leaving the crop about 2,000 MT below growers' initial expectations. However, with many trees coming into bearing, production is still up 86% year-on-year.

Australia. The 2025 harvest benefited from a favorable on-year, with strong tree health and good nut set across major production regions. Indicators suggest solid potential for both volume and quality for the 2026 harvest bolstered by the inclusion of young trees now coming into production.

Brazil. The 2026 crop is expected at around 7,000 MT, marking a recovery after two seasons hit by floods and drought. New plantings are progressing slowly, while limited production has pushed producer prices to historic highs.

Estimated World Pecan Production. In-shell Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
USA	69,000	120,200	189,200	60,300	60,300	129,500	189,800	65,800
MEXICO	2,000	127,100	129,100	2,000	2,000	115,000	117,000	2,000
SOUTH AFRICA	700	37,500	38,200	1,000	1,000	49,800	50,800	1,000
CHINA	50	3,500	3,550	20	20	6,500	6,520	50
AUSTRALIA	0	2,540	2,540	0	0	3,600	3,600	0
BRAZIL	0	2,000	2,000	0	0	3,500	3,500	0
ARGENTINA	0	3,000	3,000	0	0	3,000	3,000	0
OTHERS	0	3,600	3,600	0	0	3,800	3,800	0
WORLD TOTAL	71,750	299,440	371,190	63,320	63,320	314,700	378,020	68,850
WORLD CONSUMPTION (Supply-End. Stock)				307,870				

Estimated World Pecan Production. Kernel Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
USA	34,500	60,100	94,600	30,200	30,200	64,800	95,000	32,900
MEXICO	1,000	66,100	67,100	1,040	1,040	60,000	61,040	1,030
SOUTH AFRICA	350	18,750	19,100	500	500	25,200	25,700	510
CHINA	25	1,750	1,775	10	10	3,250	3,260	25
AUSTRALIA	0	1,320	1,320	0	0	1,870	1,870	0
BRAZIL	0	900	900	0	0	1,750	1,750	0
ARGENTINA	0	1,500	1,500	0	0	1,500	1,500	0
OTHERS	0	1,800	1,800	0	0	1,950	1,950	0
WORLD TOTAL	35,875	152,220	188,095	31,750	31,750	160,320	192,070	34,465
WORLD CONSUMPTION (Supply-End. Stock)				156,345				

Sources: South African Pecan Nut Producers Association, Associação Brasileira de Nozes, Castanhas e Frutas Secas, Argentine Pecan Committee, and other INC sources. Season 2024/25 starts as of 2024 harvest; and 2025/26 as of the 2025 harvest in both hemispheres.

Pine Nuts

松子 / صنوبر / پاٹن نटس / Piñón / Pinhões / Pignon / Çam fistigi

The information contained herein was prepared between late September and October 2025.



China. As reported by the Chinese Chamber of Commerce, the global pine nut market, especially the Chinese market, has experienced a significant supply contraction, which has directly driven a general rise in raw material prices and exerted a profound impact on the upper and lower reaches of the industrial chain.

Russia. The forecast for 2025/26 was reviewed down due to unfavorable weather conditions. In many regions, cones failed to reach full maturity and fell prematurely, leading to reduced yields despite a larger overall forested area. This marks the third consecutive poor crop year following. However, a bumper crop is anticipated for 2026.

Italy. The 2025/26 forecast remains unchanged. Late August and early September brought very hot weather while the cones were still on the trees. Conditions have since improved, and collection was expected to begin in October.

Portugal and Spain. At the time of reporting, indications suggested that 2025 production was very limited, although efforts were still underway to obtain more accurate figures. In addition to adverse weather conditions, Spain also suffered significant losses of pine forest area due to wildfires during 2025, with approximately 16,000 hectares affected. The combination of reduced yields and forest losses has resulted in an exceptionally tight supply and strong upward pressure on prices, which were reported at around €57/kg.

Estimated World Pine Nut Production. In-shell Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
ASIA (Pinus koraiensis, P. sibirica, P. yunnanensis and P. gerardiana)								
CHINA	20,000	111,500	131,500	30,000	30,000	62,400	92,400	30,000
NORTH KOREA	2,000	30,000	32,000	4,000	4,000	20,000	24,000	6,000
RUSSIA (Siberia)	800	15,000	15,800	1,000	1,000	18,000	19,000	2,500
AFGHANISTAN	320	2,300	2,620	720	720	7,800	8,520	2,600
PAKISTAN	980	800	1,780	480	480	5,200	5,680	1,700
MONGOLIA	1,000	7,000	8,000	600	600	4,500	5,100	2,400
SUBTOTAL	25,100	166,600	191,700	36,800	36,800	117,900	154,700	45,200
MEDITERRANEAN (Pinus pinea)								
TÜRKİYE	510	5,450	5,960	1,100	1,100	7,600	8,700	4,600
ITALY	0	625	625	0	0	500	500	50
PORTUGAL	310	500	810	60	60	60	120	0
SPAIN	250	500	750	150	150	50	200	0
OTHERS	0	330	330	0	0	380	380	0
SUBTOTAL	1,070	7,405	8,475	1,310	1,310	8,590	9,900	4,650
WORLD TOTAL	26,170	174,005	200,175	38,110	38,110	126,490	164,600	49,850
WORLD CONSUMPTION (Supply-End. Stock)				162,065				

Estimated World Pine Nut Production. Kernel Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
ASIA (Pinus koraiensis, P. sibirica, P. yunnanensis and P. gerardiana)								
CHINA	5,000	27,875	32,875	7,500	7,500	15,600	23,100	7,500
NORTH KOREA	500	7,500	8,000	1,000	1,000	5,000	6,000	1,500
RUSSIA (Siberia)	260	4,450	4,710	300	300	6,000	6,300	820
AFGHANISTAN	160	1,180	1,340	370	370	4,000	4,370	1,330
PAKISTAN	490	410	900	245	245	2,650	2,895	870
MONGOLIA	250	1,750	2,000	150	150	1,500	1,650	790
SUBTOTAL	6,660	43,165	49,825	9,565	9,565	34,750	44,315	12,810
MEDITERRANEAN (Pinus pinea)								
TÜRKİYE	120	1,280	1,400	250	250	1,750	2,000	1,060
ITALY	0	125	125	0	0	100	100	10
PORTUGAL	65	100	165	12	12	12	24	0
SPAIN	48	100	148	30	30	10	40	0
OTHERS	0	70	70	0	0	80	80	0
SUBTOTAL	233	1,675	1,908	292	292	1,952	2,244	1,070
WORLD TOTAL	6,893	44,840	51,733	9,857	9,857	36,702	46,559	13,880
WORLD CONSUMPTION (Supply-End. Stock)				41,876				

Sources: China Chamber of Commerce for Import and Export of Foodstuffs, and other INC sources.

Pistachios

开心果 / فستق / पिस्ता / Pistacho / Pistáculos / Pistache / Antep fistığı

The information contained herein was prepared between late September and October 2025.



USA. Total shipments at the end of crop year 2024/25 reached 425,923 metric tons (939 million pounds). Shipments decreased from last year's record setting 535,870 MT (1.2 billion lbs.) due to a lower supply of 503,700 MT (1.1 B lbs.). Despite the lower supply, international demand remained strong. Europe sustained its high demand with shipments reaching 125,928 MT (278 M lbs.), which is on par with last crop year's shipments of 133,810 MT (295 M lbs.). China shipments decreased from the previous crop year's 165,107 MT (364 M lbs.) to 96,996 MT (214 M lbs.). However, this is still an increase from the last "off" year, as crop year 2022/23 shipments totaled 95,200 MT (210 M lbs.). Both Middle East and India markets sustained their demand in the 2024/25 crop year, as shipments reached 45,116 MT (99 M lbs.) and 16,518 MT (36 M lbs.), respectively. Crop size for the upcoming crop is considered an "on" year, estimated to be 726,400 MT (1.6 B lbs.). Weather conditions have been favorable throughout the growing season, with some random rain events during harvest.

Iran. As reported by the Iran Pistachio Association, annual export shipments for 2024/25 reached 202,000 MT, in-shell equivalent, a 50% increase vs. the previous year. Final "export to opening inventory ratio" stands at 82%. Competitive prices, limited supply from other origins, and increasing kernel consumption worldwide have been the main drivers. Kernels and green kernels accounted for almost half of this year's share, with kernel demand remaining the main driver. The 2024/25 marketing year marked a historic record for Iranian pistachio kernels in both volume and market diversification. In-shell trade remains stagnant; sharp USD/IRR volatility and export restrictions have fueled uncertainty among growers and exporters, effectively locking the market.

Considering a year-end carry-out of 15,000 MT, the 2024/25 crop was adjusted to 217,000 MT. The pre-harvest forecast stands at 240,000 MT. By mid-October, two thirds of the harvest was completed, with a lower share of closed-shells

reported. Higher-than-expected blank percentage may lead to a downward revision of the post-harvest crop estimate. Smaller nut size is reported compared to last year, resulting from irrigation interruptions due to electricity shortages.

Türkiye. At the time of reporting, a combination of drought, unfavorable weather conditions, and an off-crop year has caused prices to rise sharply within a short timeframe. Although there was a significant carryover stock, only a limited quantity had been released to the market. Strong domestic consumption has further supported high price levels. In addition, expectations for the 2026/27 crop are pessimistic in terms of production volume, adding further pressure on market sentiment. As a result, exporters have been priced out of the international market. Despite entering the peak export season, no significant export activity has been observed.

In response to these challenges, the government has taken regulatory action. On September 17, an official decision was announced allowing the importation of pistachios from the USA, Iran, and Syria. While the application process had not yet been launched as of this report, the announcement already had a positive effect. Raw material prices dropped by USD 1-2/kg in a single day.

Spain. With current production levels, Spain remains a relatively minor supplier in international markets compared to established origins. Nevertheless, the country enjoys a strategic logistical advantage. The industry still faces structural challenges, particularly the lack of sufficient volumes and the absence of uniformity in supply. At the same time, cultivated area continues to expand, and this will eventually translate into higher production volumes. That shift will open new opportunities but will also create challenges, particularly in terms of processing capacity, market integration, and price competitiveness.

Estimated World Pistachio Production. In-shell Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
USA (M lbs.)	185	1,109	1,294	120	120	1,600	1,720	400
USA (MT)	83,900	503,700	587,600	54,500	54,500	726,400	780,900	181,600
IRAN	30,000	217,000	247,000	15,000	15,000	240,000	255,000	20,000
TÜRKİYE	50,000	415,500	465,500	243,400	243,400	114,600	358,000	192,400
SYRIA	0	28,050	28,050	0	0	13,350	13,350	0
SPAIN	0	4,500	4,500	0	0	8,500	8,500	0
GREECE	0	6,000	6,000	0	0	6,000	6,000	0
ITALY	0	2,800	2,800	300	300	4,700	5,000	1,600
AUSTRALIA	0	4,450	4,450	0	0	3,000	3,000	0
AFGHANISTAN	0	2,500	2,500	0	0	2,600	2,600	0
CHINA	0	300	300	0	0	320	320	0
WORLD TOTAL	163,900	1,184,800	1,348,700	313,200	313,200	1,119,470	1,432,670	395,600
WORLD CONSUMPTION (Supply-End. Stock)				1,035,500				

Sources: Iran Pistachio Association, Greek Nuts & Fruits Trade Association, Australia Pistachio Growers' Association, and other INC sources. Season 2024/25 starts as of 2024 harvest; and 25/2026 as of the 2025 harvest in both hemispheres.

Walnuts

核桃 / جوز / अखरोट / Nuez / Nozes / Noix / Ceviz

The information contained herein was prepared between late September and October 2025.



China. The 2025/26 crop is forecasted slightly lower than last season due to unfavorable weather in north and northwest growing regions. Due to record-low inventory, a hot summer, and the forthcoming holiday season, the harvest for some regions started in August, earlier than in the previous season. The good weather in Xinjiang ensured nice color of kernels and early shipments at the beginning of September.

USA. As reported by the California Walnut Board, production is anticipated to increase by 18% compared to 2024 based on 375,000 bearing acres (ca. 151,800 hectares) 67% of which are under 20 years old. Orchards entered this season with replenished water reserves and ideal temperatures for early

development, followed by ideal spring and summer conditions. The industry remains confident in their ability to deliver an ample supply of high quality, to meet global demand.

Chile. After the drop of 2024, caused by insufficient chill hours, production rebounded in 2025, supported by favorable weather. For the 2026 crop, orchards are developing within expectations. By the end of August, about 83% of the crop had already been sold. The season opened with delays in India, but demand later improved, with exports surpassing last year's levels. Early demand from Europe and Türkiye helped to maintain shipment flows.

Estimated World Walnut Production. In-shell Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
CHINA	50,000	1,550,000	1,600,000	20,000	20,000	1,500,000	1,520,000	60,000
USA	83,000	547,000	630,000	63,000	63,000	645,000	708,000	65,000
CHILE	540	134,600	135,140	400	400	168,200	168,600	600
UKRAINE	1,000	88,800	89,800	1,600	1,600	100,800	102,400	1,200
ROMANIA	1,000	40,000	41,000	1,200	1,200	53,000	54,200	800
TÜRKİYE	0	48,000	48,000	0	0	40,000	40,000	0
IRAN	0	35,000	35,000	0	0	38,700	38,700	0
FRANCE	0	25,000	25,000	0	0	35,000	35,000	0
INDIA	10,000	33,000	43,000	3,500	3,500	30,000	33,500	3,000
ARGENTINA	1,000	21,000	22,000	0	0	22,000	22,000	0
SPAIN	0	13,000	13,000	0	0	19,500	19,500	0
MOLDOVA	300	17,700	18,000	100	100	18,400	18,500	300
ITALY	0	14,900	14,900	0	0	15,000	15,000	0
PORTUGAL	0	11,100	11,100	0	0	12,200	12,200	0
HUNGARY	0	14,000	14,000	0	0	11,900	11,900	200
OTHERS	0	26,000	26,000	0	0	25,300	25,300	0
WORLD TOTAL	146,840	2,619,100	2,765,940	89,800	89,800	2,735,000	2,824,800	131,100
WORLD CONSUMPTION (Supply-End. Stock)			2,676,140					

Estimated World Walnut Production, Kernel Basis · Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
CHINA	22,000	682,000	704,000	8,800	8,800	660,000	668,800	26,400
USA*	36,500	240,700	277,200	27,700	27,700	283,800	311,500	28,600
CHILE	255	61,900	62,155	185	185	78,200	78,385	280
UKRAINE	410	34,600	35,010	620	620	40,300	40,920	480
ROMANIA	440	17,600	18,040	530	530	21,500	22,030	320
TÜRKİYE	0	19,200	19,200	0	0	16,000	16,000	0
IRAN	0	14,400	14,400	0	0	15,900	15,900	0
FRANCE	0	10,500	10,500	0	0	14,700	14,700	0
INDIA	3,300	10,900	14,200	1,150	1,150	9,900	11,050	990
ARGENTINA	430	9,000	9,430	0	0	9,900	9,900	0
SPAIN	0	5,200	5,200	0	0	8,300	8,300	0
MOLDOVA	132	7,300	7,432	40	40	7,400	7,440	120
ITALY	0	6,700	6,700	0	0	6,800	6,800	0
PORTUGAL	0	5,000	5,000	0	0	5,500	5,500	0
HUNGARY	0	6,000	6,000	0	0	4,800	4,800	80
OTHERS	0	11,150	11,150	0	0	11,150	11,150	0
WORLD TOTAL	63,467	1,142,150	1,205,617	39,025	39,025	1,194,150	1,233,175	57,270
WORLD CONSUMPTION (Supply-End. Stock)			1,166,592					

Sources: California Walnut Board and Commission, Chilenut, Walnut Growers Association of Türkiye, Portugal Nuts and other INC sources. *California Walnut Board and Commission does not measure in kernel basis. Kernel equivalent is an INC estimation. Season 2024/25 starts as of 2024 harvest; and 2025/26 as of the 2025 harvest in both hemispheres.

Peanuts

花生 / فول سوداني / مونگاکلی / Cacahuete / Amendoin / Cacahuète / Yer fistigi

The information contained herein was prepared between late September and October 2025.



China. According to a USDA Foreign Agricultural Service report dated September 26, 2025, production 2025/26 was projected at 18.8 million metric tons (in-shell basis), slightly higher than the previous season. This increase reflects expanded planting not only in the traditional producing provinces of Henan and Shandong, but also in Jilin, an emerging production area. Despite lower returns following the 2024 harvest, peanuts have continued to offer stronger profitability than competing crops such as soybeans, corn, or cotton. A period of drought in early June affected major producing zones in Henan and Shandong, likely offsetting some of the potential gains from the larger planted area.

Imports have dropped sharply. The estimate for marketing year 2024/25 was reduced to 350,000 metric tons, less than half the previous forecast, due to ample domestic supply and slow consumption growth. Imports from leading suppliers Senegal and Sudan fell significantly, while purchases from the USA declined to around 50,000 MT, compared with nearly 80,000 MT a year earlier.

The processing sector remained steady, with crushing expected to rise slightly to 10.1 M MT in MY 2025/26, supporting a small increase in peanut meal and peanut oil output. Peanut oil production was projected at around 3.2 M MT.

India. Both as reported by the USDA FAS (September 26) and industry sources, production for 2025/26 was forecasted at 7.35 M MT, slightly up from last year's record crop. The harvested area was expected to decline to 5.45 M hectares. Yields were forecasted to add to 1.35 MT/ha.

Domestic consumption was projected to increase modestly, while crushing demand continued to rise. Total domestic use was forecasted at 6.55 M MT, with 4.2 M MT expected to go into crushing. Exports were forecasted at near 0.8 M MT, constrained by strong domestic demand. Ending

stocks were projected at 0.48 M MT, reflecting adequate supply for domestic processors.

USA. According to the USDA Crop Production Report (September 12, 2025), total planted area for peanuts in the USA was estimated at 1.95 million acres (789,140 hectares), representing a 1% increase from the previous forecast and an 8% rise over 2024. The harvested area was forecast at 1.90 M acres (768,900 ha), also up 8% year-on-year, marking a return to broad expansion across most peanut-producing regions. Arkansas was expected to achieve record-high harvested acreage this season, while Georgia remains the nation's leading peanut producer.

Production was forecasted at 7.40 billion pounds (3.354 M metric tons), a 15% increase from 2024/25. The average yield was projected at 3,890 lbs. per acre (4.36 MT/ha), up 222 lbs. (0.1 MT) from last year. North Carolina was projected to reach a record-high yield. The USDA Crop Progress Report (September 29, 2025) indicated that harvest activity was underway in several states. The eight states that account for 95% of the US peanut planted area reported that, on average, 17% of their planted area has been harvested, which is 4 percentage points ahead of the average for the past five seasons. Florida and North Carolina were the most advanced in harvest progress. Crop conditions were reported as mostly good, with an average across the eight states of 47% good, 32% fair, 11% poor, 8% excellent, and 2% very poor.

An industry source reported that drought conditions have affected some peanut producing regions across the Southeast and Virginia-Carolina areas. While rains in this region have offered limited relief, fields remained drier than normal. While the drought might pressure yields and quality, the full impact remained uncertain.

Estimated World Peanut Production. In-shell Basis · 1000 Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Crop	Total Supply	Ending Stock	Beginning Stock	Crop	Total Supply	Ending Stock
CHINA	796	18,400	19,196	679	679	18,800	19,479	680
INDIA	305	7,100	7,405	357	357	7,350	7,707	359
NIGERIA	463	4,300	4,763	452	452	4,300	4,752	431
USA	672	2,925	3,597	709	709	3,354	4,063	920
SENEGAL	652	1,800	2,452	662	662	1,800	2,462	642
ARGENTINA	127	1,895	2,022	232	232	1,389	1,621	45
BRAZIL	7	1,200	1,207	44	44	1,160	1,204	79
SUDAN	500	1,684	2,184	324	324	1,000	1,324	324
INDONESIA	104	880	984	105	105	830	935	91
GHANA	48	625	673	27	27	600	627	27
VIET NAM	32	378	410	30	30	378	408	33
CÔTE D'IVOIRE	0	240	240	0	0	240	240	0
NICARAGUA	0	196	196	0	0	186	186	0
SOUTH AFRICA	11	69	80	18	18	85	103	26
MEXICO	23	85	108	24	24	84	108	24
OTHERS	721	10,036	10,757	729	729	10,037	10,766	724
WORLD TOTAL	4,461	51,813	56,274	4,392	4,392	51,593	55,985	4,405
WORLD CONSUMPTION (Supply-End. Stock)				51,882				

Sources: China Chamber of Commerce for Import and Export of Foodstuffs, USDA, Argentine Chamber of Peanuts (CAM), and other INC sources. Season 2024/25 starts as of 2024 harvest; and 2025/26 as of the 2025 harvest in both hemispheres.



Dates

枣 / تمر / خجور / Dátيل / Tâmaras / Datte / Hurma

The information contained herein was prepared between late September and October 2025.

The 2025/26 season has benefited from generally favorable climatic conditions, resulting in improved fruit quality compared to last year. At the time of reporting, demand was anticipated to remain strong for the two flagship varieties: Deglet Noor, predominantly produced in Algeria, Tunisia, Israel, and California; and Medjool, mainly supplied by Saudi Arabia, Egypt, Morocco, Jordan, and Israel. Medjool is gaining traction in the global market, with volumes set to expand again this year, supported by the plantations established over the past two decades.

Estimated World Table Date Production. Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Production	Total Supply	Ending Stock	Beginning Stock	Production	Total Supply	Ending Stock
SAUDI ARABIA	110,000	270,000	380,000	115,000	115,000	290,000	405,000	120,000
EGYPT	20,000	180,000	200,000	22,000	22,000	190,000	212,000	23,000
UAE	40,000	170,000	210,000	44,000	44,000	170,000	214,000	44,000
TUNISIA	15,000	100,000	115,000	1,000	1,000	135,000	136,000	10,000
IRAN	7,500	130,000	137,500	7,000	7,000	130,000	137,000	7,000
ALGERIA	20,000	65,000	85,000	2,000	2,000	75,000	77,000	10,000
IRAQ	12,000	70,000	82,000	15,000	15,000	70,000	85,000	15,000
ISRAEL	1,000	55,000	56,000	1,000	1,000	60,000	61,000	1,000
MOROCCO	6,000	40,000	46,000	8,000	8,000	40,000	48,000	8,500
JORDAN	4,600	22,000	26,600	4,500	4,500	26,000	30,500	4,800
USA	12,000	25,000	37,000	11,000	11,000	25,000	36,000	11,000
OMAN	6,000	25,000	31,000	5,500	5,500	25,000	30,500	5,500
PAKISTAN	5,000	25,000	30,000	6,000	6,000	25,000	31,000	6,000
MEXICO	4,000	19,000	23,000	4,000	4,000	20,000	24,000	4,000
SUDAN	1,000	6,000	7,000	1,000	1,000	6,000	7,000	1,000
LIBYA	1,000	3,000	4,000	300	300	3,000	3,300	300
WORLD TOTAL	265,100	1,205,000	1,470,100	247,300	247,300	1,290,000	1,537,300	271,100
WORLD CONSUMPTION (Supply-End. Stock)				1,222,800				

Source: INC. These data concern only dates that have been packaged and presented for sale as such. They account for about 15% of global production of raw dates. Dates consumed in bulk and those destined for processing are not included.

Dried Apricots

杏脯 / مشمش محفف / سُوكِي خُبَانِي / Orejón / Damascos secos / Abricot sec / Kuru kayisi



The information contained herein was prepared between late September and October 2025.

Türkiye. As reported by the Aegean Exporters Association, exports in the 2024/25 season reached 74,826 metric tons, with an average price of approximately USD 5,046/MT. This represents an increase in volume compared with 66,796 MT in the previous season.

Production 2025/26 is estimated at 2,000 MT, as the severe frost in April caused extensive damage to the orchards and almost destroyed the harvest. Despite this unprecedented shortfall, carryover stocks from the 2024/25 season are expected to ensure sufficient supply to cover market demand.

Estimated World Dried Apricot Production. Metric Tons

Country	2023/2024				2024/2025			
	Beginning Stock	Production	Total Supply	Ending Stock	Beginning Stock	Production	Total Supply	Ending Stock
TÜRKİYE	7,000	107,517	114,517	45,000	45,000	2,000	47,000	1,000
UZBEKISTAN	0	12,000	12,000	2,000	2,000	25,000	27,000	500
IRAN	0	25,000	25,000	1,000	1,000	23,000	24,000	1,000
TAJIKISTAN	0	7,000	7,000	1,000	1,000	15,000	16,000	500
AFGHANISTAN	0	3,500	3,500	2,000	2,000	10,000	12,000	0
CHINA	0	4,900	4,900	0	0	3,000	3,000	0
USA	0	1,800	1,800	0	0	2,700	2,700	0
SOUTH AFRICA	0	1,200	1,200	0	0	1,100	1,100	0
OTHERS	0	5,000	5,000	0	0	5,300	5,300	0
WORLD TOTAL	7,000	167,917	174,917	51,000	51,000	87,100	138,100	3,000
WORLD CONSUMPTION (Supply-End. Stock)				123,917				

Sources: Aegean Exporters' Association, Iran Dried Fruit Exporters Association, and other INC sources. Season 2024/25 starts as of 2024 harvest; and 2025/26 as of the 2025 harvest in both hemispheres.

Dried Cranberries

小红莓 / التوت البري المجفف / سूखे कैनबेरी / Arándano rojo / Airelas secas / Canneberge séchée / Keçiyemisi



The information contained herein was prepared between late September and October 2025.

At the time of reporting, dry production remained steady. Warmer weather in Wisconsin was resulting in smaller berry sizes. This may reduce the overall US crop by 5-10%. The market was holding firm and pricing expected to remain stable. Production in China is increasing (roughly 5,000 MT in 2025/26), but largely based on frozen imports.

Estimated World Sweetened Dried Cranberry Production. Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Production	Total Supply	Ending Stock	Beginning Stock	Production	Total Supply	Ending Stock
USA	9,367	142,321	151,688	8,880	8,880	143,900	152,780	9,768
CANADA	3,678	49,560	53,238	3,250	3,250	49,700	52,950	2,925
CHILE	360	10,670	11,030	378	378	11,600	11,978	350
WORLD TOTAL	13,405	202,551	215,956	12,508	12,508	205,200	217,708	13,043
WORLD CONSUMPTION (Supply-End. Stock)			203,448					

Source: INC. The cranberry crop is harvested in the fall. End-of-year statistics are measured as of August 31. 2025/26 represents the estimate of production and supply through August 31, 2026.

Dried Figs

无花果 / التين المجفف / सूखे अंजीर / Higo seco / Figos secos / Figue sec / Kuru incir



The information contained herein was prepared between late September and October 2025.

Türkiye. The Aegean Exporters Association estimates 2025/26 production at 80,000 MT, 14% above the earlier forecast, with supply expected to meet demand. Exports in 2024/25 totaled 60,176 MT at an average price of USD 6,016/MT, below the 63,477 MT of 2023/24, reflecting strong demand.

Estimated World Dried Fig Production. Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Production	Total Supply	Ending Stock	Beginning Stock	Production	Total Supply	Ending Stock
TÜRKİYE	8,000	60,000	68,000	5,000	5,000	80,000	85,000	10,000
IRAN	6,000	35,000	41,000	8,000	8,000	32,500	40,500	10,000
AFGHANISTAN	1,000	15,000	16,000	0	0	25,000	25,000	0
SPAIN	0	12,000	12,000	1,200	1,200	10,200	11,400	0
GREECE	50	2,600	2,650	300	300	5,500	5,800	0
ITALY	0	2,500	2,500	0	0	2,200	2,200	0
USA	1,500	5,000	6,500	500	500	4,500	5,000	250
OTHERS	0	5,700	5,700	0	0	6,900	6,900	0
WORLD TOTAL	16,550	137,800	154,350	15,000	15,000	166,800	181,800	20,250
WORLD CONSUMPTION (Supply-End. Stock)			139,350					

Sources: Aegean Exporters' Association, Iran Dried Fruit Exporters Association, Greek Nuts & Fruits Trade Association and other INC sources.

Prunes

西梅 / سून / البرقوق المجفف / Ciruela seca / Ameixas secas / Pruneau / Kuru erik



The information contained herein was prepared between late September and October 2025.

Chile. Chile Prunes reports on-schedule flowering for the 2026 crop, with no frosts but low water reserves. The 2025 crop showed good volumes and quality, with China as the main destination, underscoring both opportunities on that market and the need for diversification.

USA. As reported by the California Prune Board, the 2025 harvest yielded excellent brix and larger sizes, though volumes were lower than expected due to residual impacts from last year's heat. Growers and handlers are pursuing promotion and research efforts to support market performance throughout the coming year.

Estimated World Prune Production. Metric Tons

Country	2024/2025				2025/2026			
	Beginning Stock	Production	Total Supply	Ending Stock	Beginning Stock	Production	Total Supply	Ending Stock
CHILE	14,000	73,390	87,390	4,920	4,920	74,000	78,920	10,000
USA	49,500	68,900	118,400	49,800	49,800	59,000	108,800	48,000
FRANCE	19,000	30,500	49,500	16,000	16,000	30,000	46,000	11,000
ARGENTINA	5,000	25,000	30,000	5,000	5,000	18,000	23,000	5,000
SERBIA	1,000	4,800	5,800	1,000	1,000	5,000	6,000	1,000
AUSTRALIA	0	820	820	0	0	3,000	3,000	350
ITALY	650	1,600	2,250	700	700	2,000	2,700	500
SOUTH AFRICA	0	541	541	328	328	250	578	0
WORLD TOTAL	89,150	205,551	294,701	77,748	77,748	191,250	268,998	75,850
WORLD CONSUMPTION (Supply-End. Stock)				216,953				

Sources: California Prune Board, Chile Prunes Association, Bureau National Interprofessionnel du Pruneau (France), Australian Prune Industry Association, and other INC sources. Season 2024/25 starts as of 2024 harvest, and 2025/26 as of the 2025 harvest in both hemispheres.

Raisins, Sultanas & Currants

葡萄干 / الربيب / کیشمیش / Uva pasa / Passas / Raisin sec / Kuru üzüm

The information contained herein was prepared between late September and October 2025.



China. Total production for the 2025/26 season is estimated at around 220,000 metric tons, with 60% green raisins and 40% Sultanas. The share of Sultanas has increased compared to last year, when the ratio was approximately 30% Sultanas and 70% green raisins. This shift reflects growers' response to higher export prices for Sultanas, which rose by 20-30% last season, while green raisin prices remained at relatively low levels. As a result, many farmers switched part of their grape production from green varieties to Sultanas.

However, Sultana exports have been moving more slowly this year compared to the previous season, likely due to competitive pricing from other origins. In contrast, green raisin exports have increased, supported by improved quality and continued low prices that make them more attractive in the market.

Domestic demand for both Sultanas and green raisins remains slow, though with limited stocks remaining from the previous crop, there is potential for some price improvement ahead of the Chinese New Year as local consumption typically rises during the holiday season.

USA. The raisin production region in California experienced optimal weather conditions during the growing season. The unexpected rain event on September 18 and 19 took some growers by surprise. The effects of the rain were still being assessed at the time of writing this report. Prior to the rain, the industry was expecting a sizeable crop short of 190,000 MT.

California is starting to notice a slight increase in overall shipments primarily due to higher demand from domestic customers. This is likely due to the higher tariffs on imports that were put in place by the current administration earlier this year.

Türkiye. As per the Aegean Exporters Association reports, production for the 2025/26 season was, at the time of writing this report, projected to reach around 165,000 MT. While this figure represents a decrease compared to the earlier estimate and historical levels, it is still expected to be sufficient to meet market demand, supported by the carryover stocks from the 2024/25 season.

Export shipments in the 2024/25 season reached 153,526 MT, with an average export price of approximately USD 3,572/MT. This marks a decline in export volume compared with the 207,855 MT shipped in the previous season.

Iran. The Iranian raisin production was, at the time of this report, expected to face a significant shortage due to severe damage in two key growing areas. The total production was estimated at 140,000 MT, of which approximately 50,000 MT were expected to account for Golden raisins. Around 40,000 MT were expected to be absorbed by local consumption, leaving the balance for green Sultana and standard Sultana production. By mid-September, a large share of fresh grapes had already been purchased for Golden raisin production, leaving reduced availability for Sultanas.

Chile. The 2025 Chilean dried grape harvest has been marked by excellent quality, supported by highly favorable weather conditions that allowed the fruit to mature properly and dry effectively.

Sales have progressed steadily, with prices trending higher than in previous years. This upward trend is primarily driven by a reduced global supply from various origins.

Estimated World Raisin / Sultana / Currant Production. Metric Tons

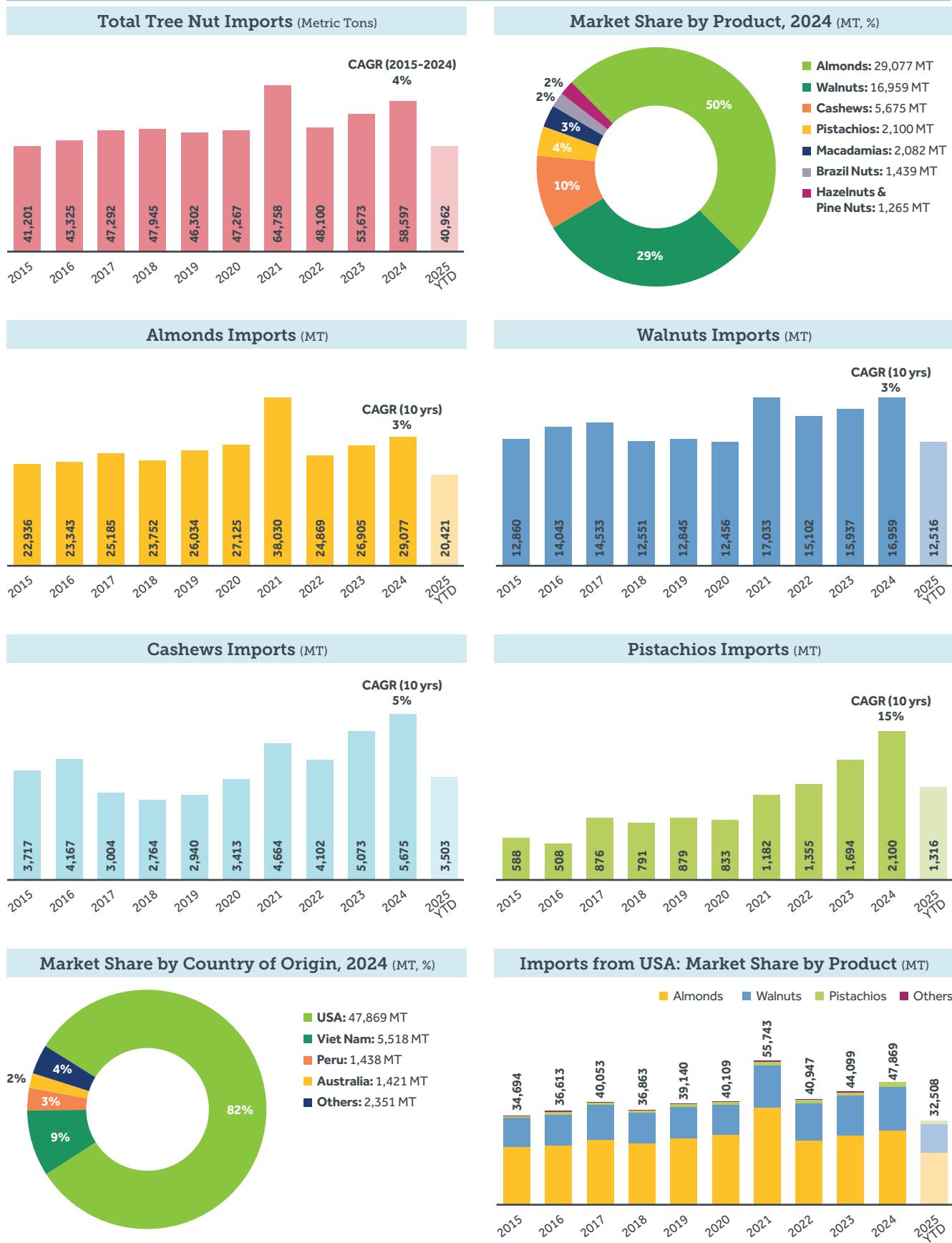
Country	2024/2025				2025/2026			
	Beginning Stock	Production	Total Supply	Ending Stock	Beginning Stock	Production	Total Supply	Ending Stock
CHINA	5,000	130,000	135,000	1,000	1,000	220,000	221,000	30,000
INDIA	10,000	245,000	255,000	9,100	9,100	180,000	189,100	10,000
TÜRKİYE	10,000	226,239	236,239	40,000	40,000	165,000	205,000	20,000
USA	44,000	174,000	218,000	58,000	58,000	165,000	223,000	45,000
IRAN	0	245,000	245,000	20,000	20,000	140,000	160,000	10,000
SOUTH AFRICA	6,000	91,000	97,000	10,000	10,000	92,000	102,000	15,000
CHILE	3,000	60,000	63,000	2,000	2,000	63,000	65,000	3,500
UZBEKISTAN	3,000	63,000	66,000	2,000	2,000	60,000	62,000	2,400
ARGENTINA	1,500	38,000	39,500	1,000	1,000	42,000	43,000	1,500
AFGHANISTAN	1,000	12,000	13,000	1,000	1,000	20,000	21,000	2,000
AUSTRALIA	450	11,875	12,325	200	200	18,560	18,760	200
GREECE	0	10,000	10,000	0	0	12,500	12,500	0
OTHERS	0	20,500	20,500	0	0	18,500	18,500	0
WORLD TOTAL	83,950	1,326,614	1,410,564	144,300	144,300	1,196,560	1,340,860	139,600
WORLD CONSUMPTION (Supply-End. Stock)				1,266,264				

Sources: Aegean Exporters Association, Iran Dried Fruits Exporters Association, Raisins South Africa, Greek Nuts & Fruits Trade Association, Dried Fruits Australia, and other INC sources. Season 2024/25 starts as of 2024 harvest; 2025/26 as of the 2025 harvest in both hemispheres.

Special Report:

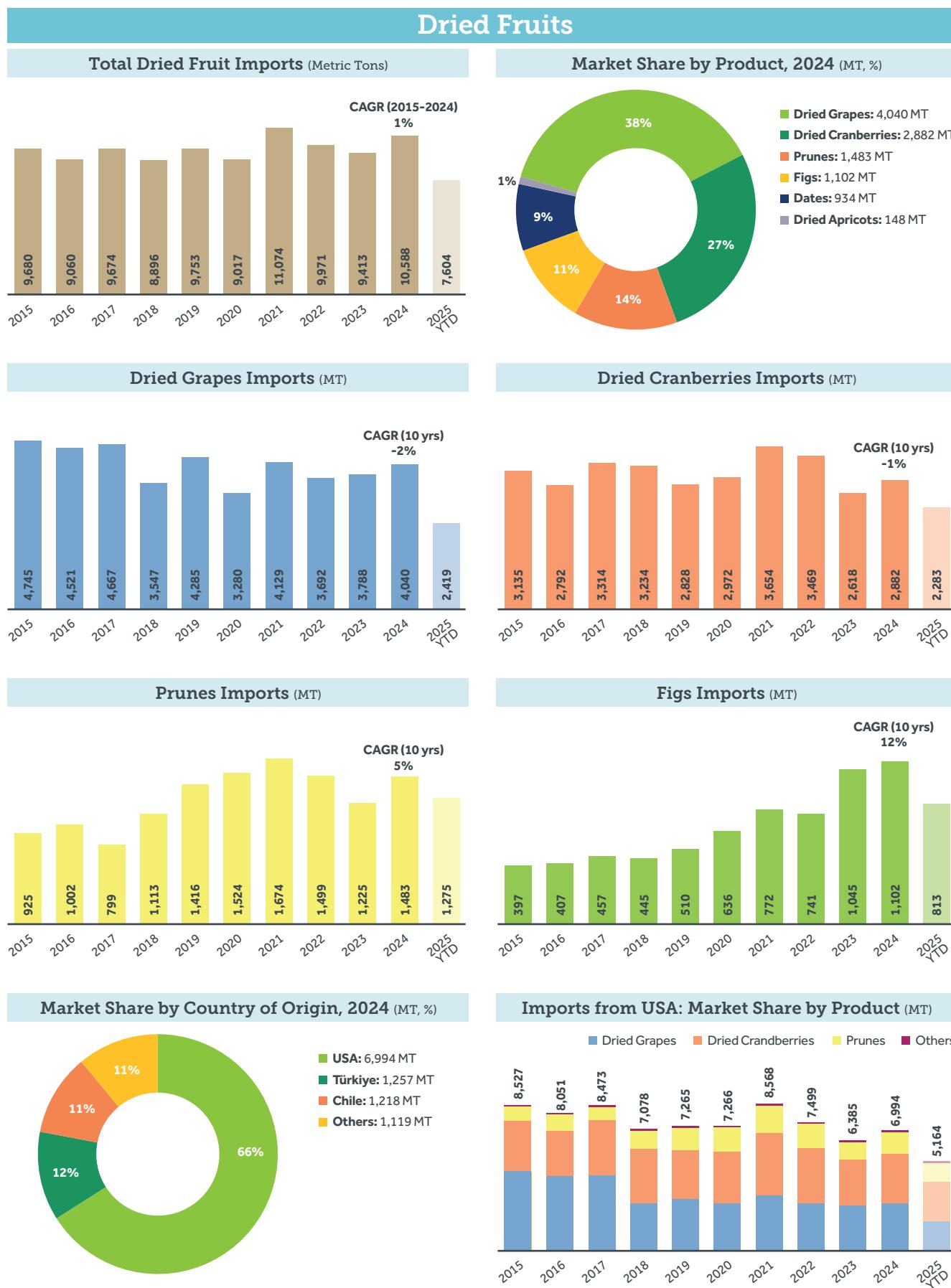
South Korean Import Market

Tree Nuts



2025 YTD: year-to-date January-September. CAGR: Compound annual growth rate. Source: Korea Customs Service.

Special Report: South Korean Import Market



2025 YTD: year-to-date January-September. CAGR: Compound annual growth rate. Source: Korea Customs Service.



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Reframing the Calorie Equation



Despite strong evidence that nuts support a healthy body weight, misconceptions about their calorie count and weight gain persist. In Australia, Nuts for Life is working to change this narrative.

Nuts for Life supported a project, through the University of Wollongong, to explore the relationship between nut consumption and body weight, focussing on metabolisable energy—defined as “the amount of energy our body can absorb when we eat food.”

The project investigated whether the “true” calorie content of nuts should be included on food labels—a change requiring regulatory approval by Food Standards Australia New Zealand (FSANZ).

The research uncovered challenges to this approach, including a low likelihood of success (together with a high application cost, and a lengthy approval process), and potential minimal impact on consumer behaviour.

Instead, Nuts for Life has translated key research, including from the PhD project, into three clear pillars, or powerful “stories” on nuts and weight.

• Story 1: The Weighty Truth

This story shares contemporary evidence, showing (convincingly) that nuts do not cause weight gain in the short term and likely support improved weight maintenance in the long term.¹ It also explores findings linking higher nut intakes with modest reductions in body weight and fat mass.

• Story 2: The Vanishing Calorie

Research shows that nuts may reduce feelings of hunger, leading to fewer calories eaten later in the day,² and that the true calorie content of nuts may be up to 26% lower than what is listed on nutrition labels.^{3,4} This story explains why, in short-term studies, energy-dense nuts do not increase body weight.

• Story 3: The Metabolic Advantage

Contemporary thinking in weight science suggests calorie quality (not just calorie density) plays a key role in shaping metabolism, satiety, and weight outcomes.⁵ And nuts emerge as foods that support metabolic function, in part due to their unique food matrix. This story explores these mechanisms.

Nuts for Life is sharing these science-backed “stories” with health professionals and bringing them to the forefront of food policy reform discussions, including the review of Australia’s dietary guidelines (currently underway) and preparatory work into improving the Health Star Rating labelling system.

“ **Nuts for Life has translated key research into three powerful ‘stories’ on nuts and weight.** ”



Photo: Nuts for Life.

High-Level Health Claim Update

Over the past few years, Nuts for Life has explored gaining a high-level health claim (HLHC) in Australia, linking nut consumption to reduced cholesterol and/or LDL (“bad”) cholesterol.

In collaboration with a regulatory consultant and drawing on the latest scientific evidence, Nuts for Life assessed the strength of the research against FSANZ’s stringent criteria for approving a HLHC. FSANZ requires that evidence demonstrates, with a *high degree of certainty*, a clear causal relationship between a specific food and a health effect.

Although substantial evidence supports the cholesterol-lowering effects of nuts, the overall body of scientific research did not meet FSANZ’s criteria. This was mainly due to significant variation and inconsistency in the results across studies—known as *high heterogeneity*—which introduces uncertainty about the strength of the evidence.

Consequently, and following discussions with FSANZ, it was determined that an application for a HLHC linking nut consumption to reduced cholesterol would have a low likelihood of approval and success. ■

For further information on Nuts for Life activities visit www.nutsforlife.com.au or contact:

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News From the INC Nutrition Research & Education Foundation (INC NREF)

**MAUREEN TERNUS,
M.S., R.D.N.**

Executive Director

The last of three papers from an INC NREF-funded study¹ has been published online in the journal *Nutrients*. Researchers found that consuming mixed tree nuts in a hypocaloric diet resulted in reduced body weight and plasma levels of the cardiovascular risk factor trimethylamine N-oxide (TMAO). The decrease in TMAO levels was greatest among individuals with lower-quality baseline diets.

Previously, researchers at the University of California, Los Angeles (UCLA) demonstrated² that consuming 1.5 ounces (43 grams, a large handful) of tree nuts per day (versus pretzels) during 24 weeks of weight loss and weight maintenance resulted in reduced body weight and decreased blood pressure and heart rate—signs of reduced cardiovascular risk.

TMAO, a gut microbiome metabolite, is a novel cardiovascular disease risk factor. It is produced by the liver from trimethylamine (TMA), which is generated by gut bacteria from dietary precursors such as choline, phosphatidylcholine, and L-carnitine. Diet can impact TMAO levels by modifying the gut microbiota, which in turn affects the production of TMA. Tree nuts, which contain phytochemicals such as carotenoids, phenolic acids, and phytosterols, may also affect TMAO production.

The most recent study looked at whether tree nut snacks, as part of a hypocaloric diet, could influence TMAO levels and their relationship with the gut microbiome. Data was collected at baseline and week 12 via dietary recall. Each study participant was given a Healthy Eating Index (HEI) score, which is used to assess diet quality based on the Dietary Guidelines for Americans. According to lead researcher Zhaoping Li, MD, PhD, Professor of Medicine and Chief of the Division of Clinical Nutrition at UCLA, "While the hypocaloric diets with tree nuts and pretzels both resulted in a significant reduction in plasma TMAO levels, the reduction of TMAO was more profound in those consuming mixed tree nuts with poor dietary habits and low HEI scores."

Interestingly, the dietary intervention did not significantly alter the intake of dietary sources of TMAO,



Photo: INC NREF.

including choline and phosphatidylcholine. Therefore, the observed decrease in TMAO plasma levels is unlikely due to a reduction in TMAO precursors. "Adding mixed tree nuts to hypocaloric diets may not only help in the reduction of plasma TMAO levels, but may be an important intervention for managing cardiovascular health," stated Dr. Li.

This study is yet another piece of evidence showing that people should include more nuts in their diet. Just a handful of tree nuts every day can result in numerous health benefits.

Publicity efforts to date surrounding this new paper have resulted in 163 placements totaling more than 187,000,000 impressions globally, including in Brazil, India, the US and Vietnam. ■

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Portugal Nuts Positions Portugal as a World-Class Producer and Exporter of Almonds and Walnuts in a Globally Competitive Industry

Portugal is emerging as one of Europe's leading producers of nuts, especially almonds and walnuts. The nut sector in Portugal has undergone a remarkable path of transformation over the last decade, and Portugal Nuts is at the forefront of this progress, promoting agricultural innovation, sustainable intensification, and international expansion.



Photo: Portugal Nuts.

This evolution is part of a broader movement that has transformed Portuguese agriculture, which has become more professional, export-oriented, and competitive. Nuts have benefited from this structural change, with investments also in the industrial sector, including the emergence of modern processing plants for almonds and walnuts, with shelling, peeling, drying, and packaging units, national brands aimed at high-value markets, and a growing presence in international fairs, both in Europe and the rest of the world.

The sector is showing solid growth, with a direct impact on the economy, the balance of trade, and the global reputation of Portuguese agri-food products.

In 2024, Portugal exported over €130 million in nuts, with almonds leading the way at €100.24 million—a 68.6% increase compared to 2023. Walnuts also saw a notable rise, reaching €2.2 million, up 27.8% from the previous year.

The area dedicated to almond cultivation has doubled over the past decade, now covering 73,000 hectares. Walnut orchards span 5,400 hectares, and the total area for tree nuts exceeds 110,000 hectares—a 54% increase in 10 years. These figures reflect the sector's dynamism and its appeal to investors and producers.

With a self-sufficiency rate of around 140% and a positive trade balance of €76.4 million, Portuguese nuts are now synonymous with quality, sustainability, and innovation.

Portugal Nuts—the Association for the Promotion of Nuts—has played, and will play in the future, a key role in this evolution, positioning the country as a competitive player in both European and global markets. It will continue to invest in technical training, research, and global outreach, securing a promising future for the industry.

The strategic investment in production, resulting from the commitment to technology and innovation in the sector, combined with the efficient management of resources and production factors, has increased productivity and boosted international competitiveness, consolidating Portugal as one of the world's top nut producers and exporters, today and in the coming years. ■



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Coach Prime Champions Health With California Almonds as His Go-To Snack



Photo: Almond Board of California.

Deion "Coach Prime" Sanders is back on the college football sidelines, bringing his signature energy and leadership to another season. But this year, his focus extends beyond the field. After facing serious health challenges, Sanders is doubling down on his commitment to personal wellness—and he's encouraging others to do the same.

“Football legend Deion Sanders has made California almonds a staple in his daily routine, calling them more than just a snack.”

Sanders has made California almonds a staple in his daily routine, calling them more than just a snack. "I take my health seriously—now more than ever—and others gotta do the same to be their best and stay prime," said Sanders. "Almonds aren't just a snack, they're part of the process, and I'm committed to the process. Take your health seriously, be consistent, and eat your darn almonds every day. Don't wait another second to focus on what your body needs."

Packed with nutrients, California almonds support Sanders' intentional approach to his health and wellness goals. Whether he's in the locker room, his office, or on the sidelines, almonds are always within reach. Backed by research, daily almond snacking has been associated with heart and metabolic health, gut support, and sustained energy—making them a powerful ally in Sanders' wellness journey.

One serving of almonds (23 nuts) delivers 6 grams of protein, 4 grams of fiber, 50% of the daily value set by the U.S. Food and Drug Administration for vitamin E, 20% for magnesium, and 13 grams of healthy unsaturated fats, with just 1 gram of saturated fat. Their nutrient profile makes them a smart choice for anyone looking to fuel their body and maintain their energy throughout the day.

Sanders's message is clear: snacking can be healthy when done right. He's calling on fans, athletes, and everyday individuals to make smarter choices—starting with almonds. His partnership with California Almonds is part of a broader campaign to inspire better eating habits and promote long-term health.

Ads featuring Coach Prime and California Almonds are airing in the United States on networks like CBS Sports and ESPN. Fans can follow the journey and learn more about the health benefits of almonds by visiting almonds.com or following California Almonds on Facebook and Instagram.

As Sanders leads his team with purpose and passion, he's also leading a movement—one almond at a time. ■

Nighttime Pistachios and the Gut–Brain Connection: What New Research is Starting to Show



Photo courtesy of American Pistachio Growers.

Two recent studies hint at a new role for pistachios in the link between the gut and the brain. In adults with prediabetes, swapping a carb-based bedtime snack for pistachios positively changed the mix of gut bacteria. In a large national study, people who ate pistachios reported fewer feelings of anxiety and lower odds of mild depression.

Doctors often tell people with prediabetes to eat a small snack with 15-30 grams of carbohydrates before bed to help keep blood sugar steady overnight. Researchers at Penn State tested a different idea: replacing that snack with 57 grams (about two ounces or two handfuls) of pistachios, eaten after dinner each night for 12 weeks.¹

The results were interesting. Compared to those who stuck with a carb-based snack, the pistachio group showed meaningful shifts in their gut bacteria. In particular, pistachios increased bacteria that produce butyrate—a compound that helps feed gut cells, strengthens the gut lining, and calms inflammation. At the same time, pistachios lowered levels of bacteria tied to less healthy outcomes. Overall diet quality also improved for those in the pistachio group.

Why does this matter for the brain? Scientists now know that what happens in the gut does not stay in the gut. Compounds like butyrate can influence brain health, mood, and even stress response. So, if pistachios help grow more of these “good” bacteria, they may also play a part in supporting mental well-being.

A separate study looked at national nutrition survey data from over 64,000 US adults.² Fewer than 1% reported eating pistachios, but those who did—about 25 grams (roughly a handful) per day on average—showed some clear differences. Older adults who ate pistachios reported less frequent anxiety and pistachio eaters overall had a 48% lower risk of minor depression even after controlling health, lifestyle, demographic, and dietary factors.

These results do not prove cause and effect, and the number of pistachio consumers was small. But taken together, the two studies suggest a simple food-first strategy worth exploring further. Beyond their complete protein, fiber, and healthy fats, pistachios may also work through the gut to deliver benefits for both body and mind. ■

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“Even small changes, like choosing pistachios at night instead of carbs, may support a healthier gut–brain link.”

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First-of-its-Kind Study Finds Young Adults Consuming Walnuts Reported Improved Sleep Quality



Photo: California Walnut Commission.

Insufficient sleep is seen as a global health concern, with multi-faceted public health implications, ranging from chronic illness to cognitive and economic impacts.¹ Eating a daily serving of about one handful (40 grams) of walnuts with dinner may help improve overall sleep quality and reduce daytime sleepiness in healthy young adults, according to a new randomized controlled trial published in *Food & Function*.^{2*}

Researchers from the University of Barcelona looked to understand the potential impact that daily walnut consumption could have on a specified urine biomarker, sleep quality parameters (time it takes to fall asleep, disruptions during sleep, and efficiency), and daytime sleepiness.

The study evaluated the effects of consuming 40 grams of walnuts daily with dinner over an eight-week period among 76 healthy young adults aged 20-28 years (85% female). Researchers found that eating walnuts boosted 6-sulfatoxymelatonin, a key biomarker of the sleep-regulating hormone melatonin, which was significantly increased in evening urine samples after a four-week intervention period when participants consumed walnuts, as compared to the control period.

The walnut intervention also shortened the time it took participants to fall asleep by 1.3 minutes, improved overall sleep quality scores, and reduced self-reported daytime sleepiness compared to a control, nut-free period. While global sleep quality scores improved, there were no significant differences in measures of circadian-related variables between the intervention and control conditions. On the basis of these findings, the researchers suggest that walnut consumption could potentially be a simple, food-based approach to supporting healthy sleep.

The researchers suggested that walnuts' combination of sleep-supportive nutrients such as the melatonin precursor tryptophan (84.6 mg per 40 gram serving), plant-based melatonin (118 ng), magnesium (63 mg), and B vitamins (0.2 mg each for vitamin B₅ and vitamin B₆) may help explain the positive outcomes seen in the study. The findings suggest that walnuts may help naturally support sleep quality, though more research is needed to understand the mechanism.

This study is among the first to demonstrate walnuts' potential as a sleep-supporting food. While further research is warranted to examine these effects, these initial findings add to the growing body of evidence supporting the role of diet and specific nutrient-dense foods, such as walnuts, in promoting sleep health. ■

To learn more about the breadth of research supporting walnut consumption, along with recipe ideas and inspiration, visit walnuts.org.

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* This research was funded by the California Walnut Commission. The funder made no contribution during the design or implementation of the study, nor in the interpretation of findings or the decision to publish.

Chile: A Land of Hazelnuts



With over 52,000 hectares planted, a harvest that has already surpassed 100,000 metric tons (in-shell), and one of the most dynamic growth rates in the world, Chilean hazelnuts are establishing themselves as a fruit of excellence. Their freshness, flavor, and sustainability set them apart globally, positioning Chile as the undisputed leader of the Southern Hemisphere.



Photo: Hazelnut Committee of Chile.

“ Chile is not just producing hazelnuts —it is presenting the world with a model of sustainable competitiveness and superior quality. ”

Chilean hazelnuts have earned international recognition for their outstanding quality, thanks to their unique attributes. Their counter-seasonality ensures availability at times when Northern Hemisphere markets cannot supply, delivering both freshness and continuity. Their flavor has been highly valued by the industry and consumers alike, standing out for its intensity and consistency. In addition, sustainable production practices reflect farmers' commitment to the environment, while traceability ensures transparency and trust from orchard to global markets.

These pillars have made Chile a strategic player in the international nut supply, positioning the country's hazelnuts as a premium product capable of competing in the most demanding export destinations.

But this recognition has not come by chance. Behind this growth lies the determined work of the Hazelnut Committee of Chile, the driving force that brings together efforts to foster the sustainable and competitive development of the crop.

The Committee has consolidated key platforms for sharing knowledge and best practices among growers, including the National Hazelnut Meeting, which has become the main forum for discussing the future outlook of the sector. Thanks to these initiatives, farmers have access to concrete tools to improve productivity, innovate in cultivation systems, and reach international quality standards.

Moreover, the Committee actively promotes connections with international associations, research centers, and innovation networks, strengthening Chile's role as a credible player on the global stage. Its work not only strengthens the growers' community but also enhances the country's image, linking the excellence of its hazelnuts to the sector's institutional leadership.

Chile is not just producing hazelnuts —it is presenting the world with a model of sustainable competitiveness and superior quality. ■

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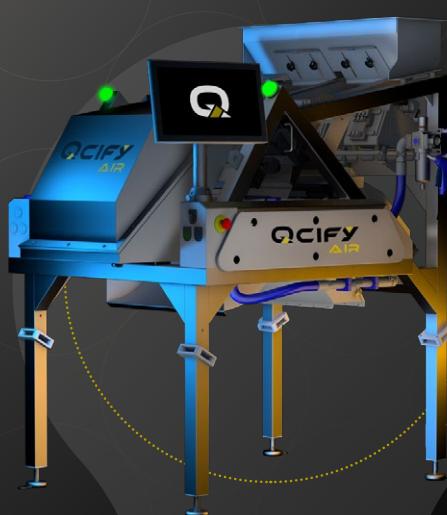
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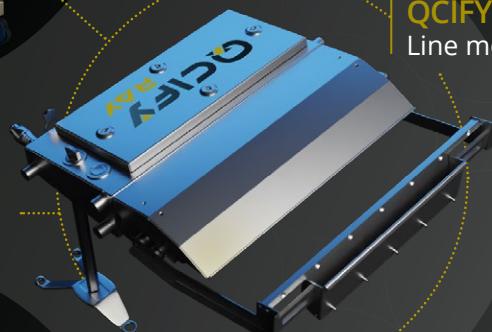
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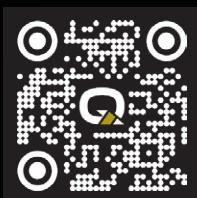
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