

NUTFRUIT®

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

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**INC XXXIX WORLD NUT AND
DRIED FRUIT CONGRESS**

May 11-13, 2022

Dubai, UAE

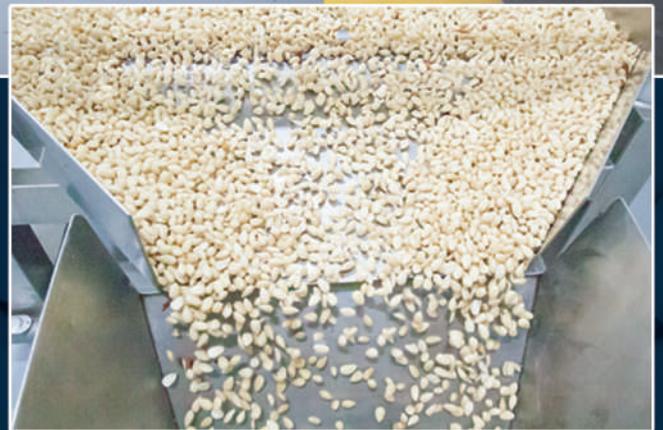
**The Industry's
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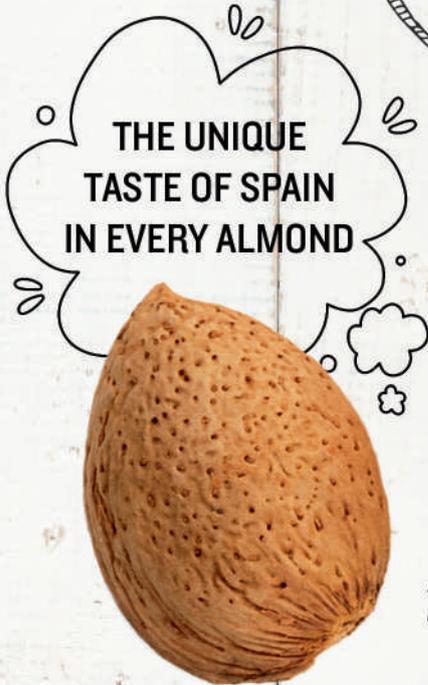
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The Nut and Dried Fruit Industry Prepares to Gather in Dubai for the INC Congress



MICHAEL WARING
INC CHAIRMAN

As an industry, we continue to see that nuts and dried fruits provide an attractive option for investors throughout the world, and companies in the sector must find ways to drive demand to keep up with the incoming supply. It is also clear that over the past ten years, nuts and dried fruits have been on trend, however, the shipping situation has done damage, as it has to all industries. Growers remain some of the most affected, and this message is important for governments as growers are the backbone of the world's food supply chain. We must come together as an industry to promote and identify ways to continue innovation and the growth that we are currently seeing.

Looking forward to the INC Congress, it is right around the corner. From May 11-13, Dubai will welcome the entire nut and dried fruit industry, and this one flight destination means that for the first time in over two years, the majority of the sector will be able to gather under one roof again and do business. The INC Executive is wrapping up preparations and we are expecting a well-attended and excellent event. The luxurious Madinat Jumeirah Resort will host the conference, and the program is filled with topical expert speakers, the highly anticipated round tables, a variety of social events for networking, and much more.

Moreover, the INC has just opened up the 5th edition of the INC Academia, which is quickly turning into the premier training program in the sector. And back is the not-to-be-missed onsite portion of the Advanced Program on Nuts & Dried Fruits. This year it will take place in sunny Naples, Italy just before the INC Dubai Congress. The INC Academia is an excellent way to gain more knowledge about the industry and I would recommend these programs to all of our members.

Another key pillar of the INC's work continues to be sustainability. The INC Manifesto has now been published. This manifesto publicly calls on the industry to accelerate sustainability commitments that are tangible, quantifiable, and measurable. Through the Sustainability Working Group, the INC hopes to contribute to various UN Sustainability Development Goals (SDGs), especially those which are most impacted by the nut and dried fruit industry. For more

information on this Working Group and the INC Manifesto, I invite you to read about it in the INC News section of this magazine.

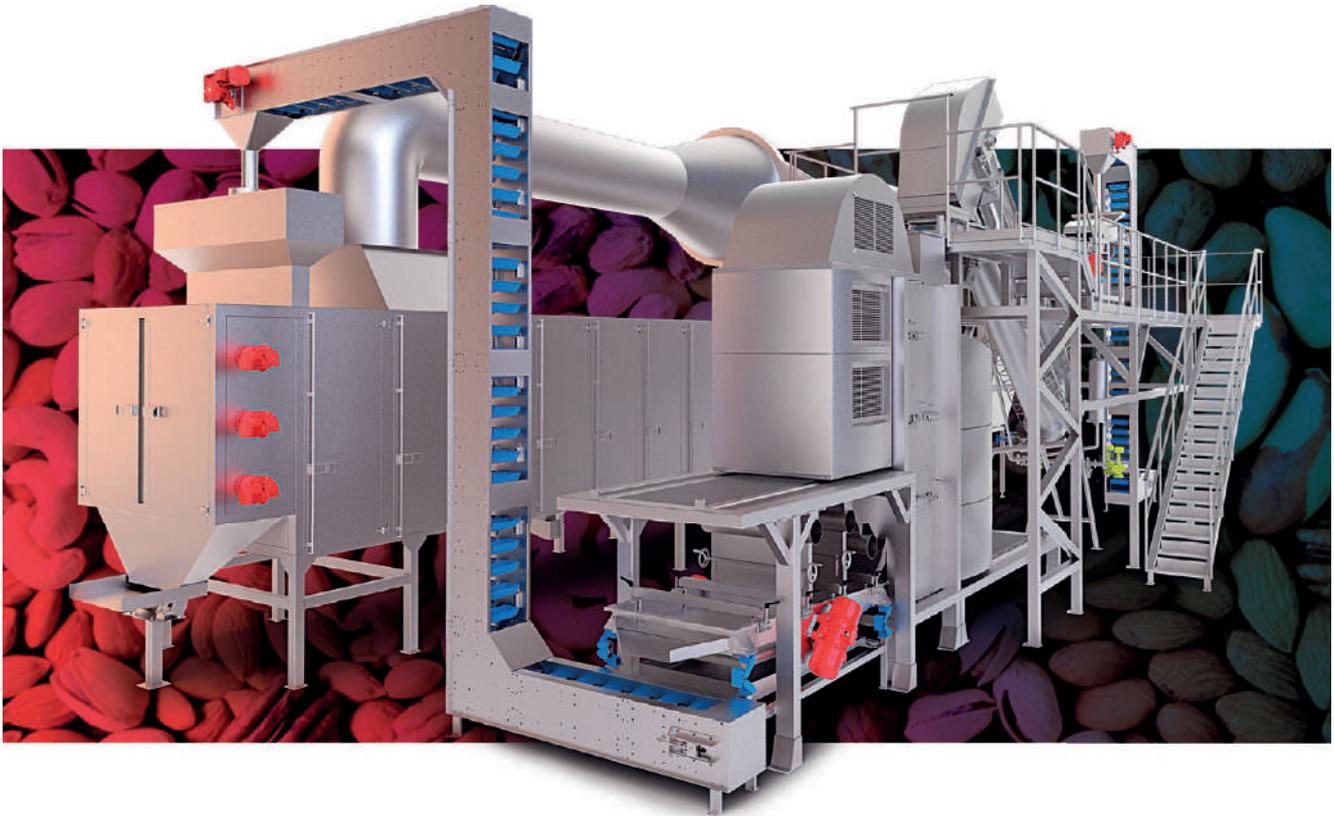
The INC Dissemination Campaign Real Power for People has come to a conclusion with excellent results. The message that nuts and dried fruits give real power to people to help them get through each day's challenge was spread to millions of consumers in nearly every corner of the world. Now turning to this year's campaign, the INC is eying a new, but rapidly growing audience – Generation Z. The key message of the next campaign will center around how nuts and dried fruits are a healthy brain food and the importance of having a healthy mind.

Lastly, I would like to touch on the fantastic INC Pavilion at Gulfood which took place in February. The Pavilion provided a wonderful space to network and connect with business partners. Being able to travel to Dubai and see so many familiar faces was a highlight in of itself, but with the success of Gulfood, it reassures that Dubai is open and it is more than ready to welcome our wonderful industry for the Congress this May.

I look forward to seeing you all very soon at our congress in Dubai, and thank you for supporting the INC.

Yours sincerely,

Michael G. B. Waring



THE ART OF NUT AND SEED PROCESSING



INTERVIEW

If experience is a degree, Maseto Technologies is, without a doubt, the clearest example.



Francisco Espinosa holds the position of CEO at Maseto Technologies, a leading company in nut processing technology.

An Industrial mechanical engineer with more than 25 years of experience in managing industrial companies in different sectors of activity, transformation processes and strategic development.

— With more than half a century of activity, it is clear that the company has had to overcome many obstacles until today. But, can you tell us the key to the success that has led Maseto to overcome these obstacles and continue to be the main business reference in its sector?

Each moment in the history of any organization presents its own challenges, and clearly Maseto has gone through difficult situations in the past, just like any other company in any other sector. The key to success lies in the daily work of a great team of professionals who are loyal to the brand and what it represents and have a clear market orientation. If we think that, approximately, every hour more than 300 tons of nuts are processed with Maseto machines throughout the world and that we are also present in the five continents, we realize the enormous responsibility that this implies.

“Therefore, we have come this far to be able to go further and that is the spirit that moves us”

Throughout a history of more than 50 years, has known how to adapt to the needs of the market, keeping the standard of innovation and quality high.

—And what are the challenges that Maseto faces in a period as disruptive as the one we are currently experiencing?

Indeed, we are facing a highly disruptive socioeconomic environment with short and intense cycles. At Maseto Technologies we are clear that change is no longer an option, it is a necessity driven by a market where consumption and marketing are constantly changing. Today, the consumer is more sovereign than ever, both in his needs and in the way of satisfying them, and this requires a continuous adaptation of the value chain. Every day is a challenge and every challenge an opportunity, so you have to stay on top of it.

Of course, if we talk about change, how can we not mention the importance of digital transformation as a vehicle for better control of information and continuous improvement. Having information is the basis for improvement and we are aware of the importance of data in current times.

— Tell me about the short and medium term in your business, what are we going to see, and how are you going to achieve it.

Of course, let’s get down to business. We have worked on a strategic plan from three large areas (Engineering, sales and marketing and digital transformation). We clearly understand that engineering is more participatory than ever before with a clear integration into customer processes through industry 4.0 and all that it represents. We are going to take steps to strengthen engineering and new technologies through investments in technology and human resources. We are also in the process of certifying ourselves firstly with ISO 9001 and secondly with ISO 14001. In terms of innovation strategy, we are going to open different innovation projects aimed at offering solutions to some of the current market demands. Product varieties such as almonds and the different applications and uses present a challenge to constant innovation and we’ll be there searching for solutions. At a commercial level, we

are incorporating personnel with the aim of continuing to lead the national market, but also and very importantly, to strengthen international expansion.

— When you say expansion, do you also mean implementation outside of Spain?

Well, it is something that we are also considering in the midterm. The world changes continuously and we also have to adapt by being closer to markets and customers.

But to answer your question about how we are going to do it, I would tell you simply by knowing who we are and what we want. We are a niche business and our main assets are specialization, experience and quality.



Unilever Reorganizes to Focus on Personal Care

In January, Unilever announced that they would be restructuring their company to put more focus on their Personal Care portfolio, as well as their Ice Cream segment. The restructure could result in Unilever divesting some of its global food brands. Additionally, the announcement comes with 1,500 management jobs across the company being cut. The new structure will create five business groups: Beauty & Wellbeing, Personal Care, Home Care, Nutrition, and Ice Cream.

"Unilever will be better able to respond to everchanged consumer trends."

CEO Alan Jope remarked that by moving to a five-category focus, Unilever will be better able to respond to everchanging consumer trends. According to an article from Food Ingredients first, regarding Food and Refreshment business, Jope stated, "We have an excellent Food & Refreshment business with global leading positions. You will notice that it performed well during the pandemic. But it is true that Food & Refreshment's long term growth profile has been below other parts of the portfolio." He later went on to say, "We have no immediate plans to separate Food & Refreshment, but rotation of our portfolio is part of upgrading into higher growth spaces." 🟩

Ferrero Continues Growth in Chile

According to Invest Chile, a Chilean government website, Ferrero Hazelnut Company, the part of the company that is in charge of sourcing hazelnuts for Ferrero has expressed interest in continuing to grow in Chile. Over recent years, Chile has developed into an important supplier for the Italian company, who already source hazelnuts from Turkey, Italy, and Georgia. Eric Schlesinger, the Ferrero Hazelnut Company General Manager said, "We have a lot of optimism, trust, and willingness to continue to grow in Chile. We see it as an increasingly important country, where we've had a lot of support and good experiences. As such, we are not only optimistic, but trust in Chile a great deal."

"Chile is the third largest supplier of hazelnuts for Ferrero, behind Turkey and Italy."

Currently, Chile is the third largest supplier of hazelnuts for Ferrero, behind Turkey and Italy. Schlesinger has stated that the company will continue to focus new projects in Chile on processing, innovation, and sustainability. He highlighted Ferrero's plans to make a \$40 Million US dollar investment in a new hazelnut processing plant in the Ñuble Region of Chile. 🟩

Importaco Cracks Secret Behind Healthy Probiotic Bacteria in Nuts



Importaco, one of the largest producers of nuts and dried fruits in Europe, has identified three probiotic bacteria from the *Lactobacillus* and *Pediococcus* genus found in nuts, through analysis of native microbiota. This first-of-its-kind discovery within the industry reinforces Importaco group's positioning as a company committed to science-based application to benefit the health of its consumers through the investigation of the beneficial properties of nuts.

"This first-of-its-kind discovery within the industry reinforces Importaco group's position as a company committed to science-based application to benefit the health of its consumers"

The ground-breaking study began in 2020 with the examination of the microbiota of more than 50 different types of nuts, to isolate and characterise the microorganisms containing possible health benefits. Importaco identified probiotic bacteria with antioxidant, anti-inflammatory, and immunostimulating properties based on in vivo and in vitro studies that may help improve the immune system, prevent the ageing of cells, slow down the causes of neurodegeneration, and will boost the health of people in all age groups. This discovery allows the company to fortify its nuts with their own naturally occurring bacteria, improve their functionality, and enhance their health benefits. 🟩



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JOSÉ AVILLEZCHEF AND RESTAURATEUR,
PORTUGAL

José Avillez is considered one of the great references of gastronomy in Portugal and has stood out because of his enterprising spirit and drive to keep pushing further. He has several restaurants in Portugal, in Lisbon and Porto, and also in Dubai, each with a different concept, but all expressing his passion for cuisine: Belcanto, distinguished with two MICHELIN Stars and elected one of the 50 best restaurants in the world by the prestigious "The World's 50 Best Restaurants"; Mini Bar; Bairro do Avillez; Cantinho do Avillez in Lisbon (Chiado and Parque das Nações), Cascais and Porto; Pizzaria Lisboa; the three restaurants in the Gourmet Experience of El Corte Inglés Lisboa, Tasca Chic, Jacaré, Barra Cascabel (in partnership with Mexican chef Roberto Ruiz); and Tasca, at the 5 stars hotel Mandarin Oriental Jumeira, in Dubai.

“ Nuts add an interesting flavor and texture and can be used in starters, main dishes, or desserts. ”

You are a widely known chef not only in Portugal, but all throughout the culinary world. What started your journey to become a chef? When did you decide this was the path you wanted?

I've had a passion for food and for eating ever since I was a child. I started cooking at home when I was 7. I used to bake with my sister and we sold the cakes to family, friends and neighbors. I went to university to study Business Communication, but it was only in my senior year of the degree in Business Communication that I decided to be a chef. In that same year, I participated in individual study sessions with Maria de Lourdes Modesto, the most important Portuguese author on Traditional Portuguese Cuisine, who encouraged me. Those sessions and my first traineeship in a professional kitchen changed my life. I knew I had found my path.

You are a champion of the Portuguese Cuisine, but what makes your country's cuisine special? How would you describe Portuguese food?

Portuguese cuisine is tremendously rich and varied due to the wide variety of landforms, climatic conditions, and soils. Northern Portugal is a mountainous region with green fertile valleys and tree-covered mountains, the Central coastal region consists of dunes and pine forests, Southern Portugal (known

as the Alentejo) is an area of plains, so each region has different products (cheese, charcuterie, meat, fruits, vegetables, herbs, etc.) and a different cuisine. We also have long coastline which explains why fish and seafood is a culinary flag. The Portuguese coast provides great quality fish and seafood—for me world's best—with a unique flavor and texture.

Your restaurant Belcanto has garnered 2 MICHELIN Stars. What does this recognition mean for you and is it your goal to be awarded a third star?

I'm very grateful to the MICHELIN Guide, it's an important acknowledgment for me, for the team, for the restaurant and for the Portuguese cuisine. BELCANTO's team is very dedicated and professional and every day we do our best. Let's see what the future holds.

How important is the quality of the ingredients you use? What is the dining experience you wish to give every person who enters a restaurant of yours?

The quality of the ingredients, the accuracy of preparation, the temperatures, the textures, the service... everything counts. At Belcanto we offer revisited Portuguese cuisine and a unique sensory and gastronomic voyage.

As many consumers are becoming increasingly concerned about health and healthy eating, nuts and dried fruits can be an important part of one's diet. How do you include nuts and/or dried fruits in your restaurants?

We are careful about food allergies and food restrictions, but I like nuts and I like to use them in different ways: starters, dishes or even desserts. Nuts are a good source of nutrients, and add interesting flavors and texture.

Nuts and dried fruits offer much more than just a healthy addition to a meal, they can change the texture, flavor, and even elevate a dish to the next level. What do you think are the benefits of cooking with nuts and dried fruits, aside from their health benefits?

Exactly that. Nuts add an interesting flavor and texture and can be used in starters, main dishes, or desserts. Just as an example: at Belcanto we serve a Portuguese shore prawn with pine nut cream, iced lupine and caviar, a Carrot and olive in different textures with pine nut milk and lupin bean "caviar", a Hake in fig leaf with its 'tongues', roasted baby leek, barbela wheat crunchy toast with fig leaves, dried fig butter, and smoked ham; at Cantinho do Avillez we serve a Meagre and shrimp moqueca with cashew nut and the most requested dessert is Hazelnut3 —hazelnut ice-cream, hazelnut foam, freshly grated hazelnut and fleur de sel.

Over the years, you have essentially become a celebrity chef, writing many cookbooks, appearing on TV, radio, and even expanding into international projects. Are there any exciting projects you're working on that you could share with us? What can the world expect next from Chef José Avillez?

I'm always thinking about new ideas. In relation to other projects, we'll see what the future holds. Stay tuned! 🍷

QUICK-FIRE ROUND!

What do you enjoy the most about being a chef?

The pleasure of welcoming and providing good moments to others.

What is your personal favorite dish with nuts or dried fruits?

Hake in fig leaf with its 'tongues', roasted baby leek, barbela wheat crunchy toast with fig leaves, dried fig butter, and smoked ham from Belcanto.

What is the next big gastronomical trend in the world?

I don't know if it's the next big trend but there's a search for identity, for what is unique about each culture, each cuisine.

What nuts and dried fruits do you always have in your kitchen at home

Hazelnuts, walnuts, pine nuts, pistachio, dried figs...



Hazelnut Trio

Ingredients (4 serves):

- 200 g quality hazelnut ice cream
- 50 g peeled hazelnuts
- Salt flower

Hazelnut foam:

- 300 g hazelnut praline
- 50 g semi-skimmed milk
- 250 g cream

To prepare the hazelnut foam, place all the ingredients in a recipient and mix with a hand blender until creamy.

Place in a siphon, add two cartridges and keep in the fridge. You should remove the siphon from the fridge about 30 minutes before serving.

Toast the hazelnuts in a 140 °C oven until golden. Cool and reserve. Place a ball of hazelnut ice cream at the bottom of each glass. Put a little hazelnut foam on top of this. Top with freshly grated hazelnut and salt flower.

Serve immediately.

New Items to Be Released by UC Davis Prune Breeding Program



Yolo Gold. Picture courtesy of the UC Davis Prune Breeding Program.

PROF. TED DEJONG and SARAH BRADLEY CASTRO

Sarah Bradley Castro is a Staff Research Associate III at University California, Davis, and manages the *Prunus domestica* Cultivar Development Program. Sarah's research interests include increasing cost efficiency for California Prune growers using new varieties as well as other innovations in fruit and nut orchard systems.

Prof. Ted DeJong is a Distinguished Professor, Emeritus, who worked as a fruit tree crop physiologist in the Department of Plant Sciences at the University of California, Davis, from 1981 to 2016. In addition to teaching, research and extension responsibilities he has overseen the UC Davis Prune Breeding Program since 1985.

The University of California, Davis Prune Cultivar Development Program was created by Dr. Theodore DeJong over 30 years ago. This traditional plant breeding program is funded by the California Prune Board. DeJong, and the breeding program manager, Sarah Castro, aim to diversify the industry by releasing multiple new prune cultivars specifically for growers in California in order to continue their legacy of producing superior tasting prunes.

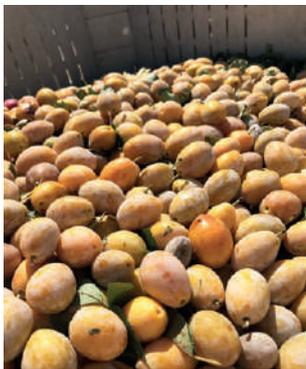
For the past several decades the California prune industry has relied on one single variety for the entire state's crop. This monoclinal situation lends itself to vulnerability of widespread disease, pest outbreaks and year-to-year variations in statewide yield. In addition to the risks of a monoculture system, the entire industry harvests and dehydrates the crop all within a few weeks. The development of new, acceptable or superior, prune cultivars will increase the efficiency and sustainability of California prune production and give some protection against the risks involved with a monoculture.

In 2000, the program released 'Sutter' prune as well as the 'Tulare Giant' fresh plum. These items, though very different in shape and use, were known for their high sugars and good flavors. The 'Sutter' prune gained popularity throughout the years, but was then dismissed by processors for various reasons. 'Tulare Giant' was released as a fresh market plum, ripening in California's San Joaquin Valley in early July. It is still grown in some parts of the valley today. Since the releases of these items the breeding program has adjusted its attention to only breeding trees that would be approved by prune processors as well as save the growers money in operational costs. While the breeding program does not focus on breeding for fresh plums, if promising fresh cultivars arise, the breeding program is willing to share these trees with interested growers on a trial basis.

In recent years the UC Davis breeding program has focused on tree and fruit characteristics that will be particularly helpful in reducing grower costs while improving the dried fruit products. To that end, the program has put a greater emphasis on tree structure and fresh fruit characteristics that may influence fresh-to-dry ratios and ease of dried fruit handling. To ensure dried fruit quality, California does not sun dry their prunes but rather tunnel-dries the crop. Fruit that partially dries on the tree before harvest would use less energy to

dry, thus fruit that dries on the tree could substantially help California growers save money in drying costs while sustaining quality. Such innovations can ensure the viability of California farmers in the competitive international market.

A new cultivar, 'Yolo Gold', is set to be released soon by the UC Davis breeding program. It is an upright growing tree that produces oval, yellow fruit. 'Yolo Gold' has excellent dried fruit attributes, and its mahogany color complements its smooth, fruity taste. The tree produces fruit on previous seasons shoots as well as spurs and should not be long pruned; crop loads are consistently high and, in most years, thinning is needed. 'Yolo Gold' blooms 4 to 6 days before 'Improved French' and harvests typically 1-2 weeks after 'Improved French' which is typically in early September in California. The fruit is typically larger than California standard 'Improved French' and has superior fresh and dried flavor in comparison to 'Improved French'. The flavor is so superior that it would not mix well with dried 'Improved French' fruit and would likely need to be marketed separately. The 2019 fruit was pitted via an Ashlock pitter and the fruit was given out as samples during the February, 2020 California Prune Summit. These samples created excitement amongst industry members. The taste and appeal of the 'Yolo Gold' has processors and farmers seeking this fruit not only to try in their operations, but they seek the fruit also for their personal consumption. Larger processors such as Mariani and Sunsweet have test-processed the 'Yolo Gold' at their plants to further test its suitability in California's commercial industry.



'Yolo Gold' is not only a candidate for the California commercial industry, but would also be an excellent option for a backyard tree. The yellow fresh fruit is attractive and delicious and the extra fresh fruit could be easily dried. Once dried, the fruit is a pleasant mahogany color and then gets darker the longer the dried fruit sits after drying. The tree is adapted to California's hot summer climate and has not been known to pit burn, drop fruit prematurely or split pit. It has yet to be tested in colder, non-Mediterranean climates such as the Pacific Northwest.

The goal of the breeding program is to produce trees that have dense, non-juicy fruit that are easy to dry. The breeding program looks forward to releasing two or three more promising purple fruited cultivars within the next 5 years. The purple, Agen-type fruit of current new selections can partially dry on the tree before harvest and are very precocious. This

precocity will make them good candidates for high density orchards and conventional orchards alike. The ability to partially dry on the tree allows the fruit to slightly shrivel on the tree and will not only save growers costs for drying, but also the dense fruit is less likely to be damaged by mechanical harvesting and processing as well as maintain more attractive appearance during drying and processing. These purple cultivars typically have a fresh to dry ratio of 2.5 or less and brix of over 30°.

The California industry could benefit from the development of new prune cultivars that have cost saving characteristics such as improved tree structure that would require less pruning, improved fruit dry matter content that would decrease drying costs, and increased tolerance to pests and diseases. It has taken a longer time that initially expected to develop and identify new prune cultivars that have the quality characteristics required to provide California growers better variety options for establishing new orchards, but we are excited about recent progress in the prune breeding program. After many years of improving our germplasm and refining our selection processes we are now confident that we have several potential new cultivars that will enhance the sustainability of the California prune industry for the next several decades. ■

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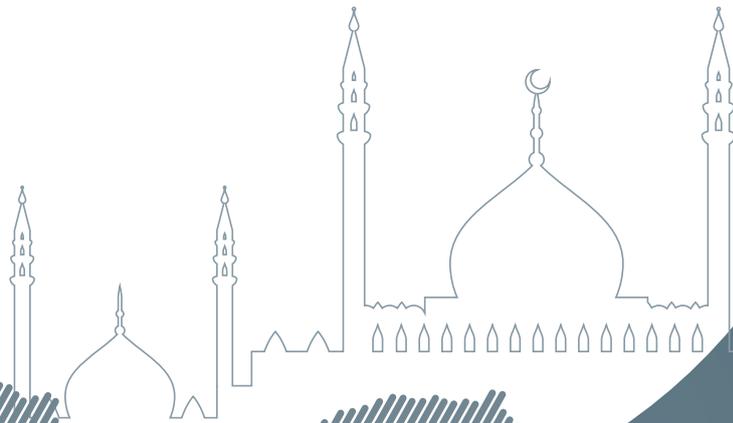
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Country/Product Spotlight

Turkey & Hazelnuts



Industry Highlight

An overview of production, trade and consumption

Current Status of Brown Marmorated Stink Bug in Turkey

Dr. Celal Tuncer shares insights on how the Brown Marmorated Stink Bug affects hazelnuts in Turkey

Health Benefits of Hazelnuts

Understanding the nutritional qualities of hazelnuts

New Product Launches

Insights into new products that utilize hazelnuts

This Country Product Spotlight is the seventh in a series of industry and market overviews in the *Nutfruit* magazine. This report provides a snapshot of the hazelnut industry in Turkey, with data, analysis, and trends.

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Global Statistical Review

Crop Progress Report

March 2022



Statistics are also available at our website www.nutfruit.org

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 Iran Turkey Tunisia Greece	Chile Morocco Italy Syria	Bolivia Peru Brazil	India Cote d'Ivoire Vietnam Guinea-Bissau Brazil Tanzania Benin	Nigeria Indonesia Cambodia Azerbaijan Spain France	Turkey Italy USA Georgia Azerbaijan Spain France	China Iran Chile	South Africa Australia Kenya USA Guatemala Malawi Brazil	China Colombia New Zealand Vietnam	USA Mexico South Africa Australia Brazil China	China DPR Korea Pakistan Afghanistan Mongolia Russia Spain	Turkey Portugal Italy	USA Iran Turkey Syria Afghanistan China Greece	Italy Australia Spain
Walnuts	Peanuts	Dates	Dried Apricots	Dried Cranberries	Dried Figs	Prunes	Raisins Sultanas Currants						
China USA Iran Turkey Ukraine Chile France Moldava	India Romania Argentina	China India USA	Vietnam Ghana Brazil	Saudi Arabia Egypt Iran China USA South Africa Australia	Sudan Oman Tunisia Morocco	UAE Pakistan Libya Israel USA	Turkey Iran China USA	USA Canada Chile	Turkey Egypt Iran USA Greece Spain Italy	USA Chile France Argentina Serbia Australia Italy	South Africa	USA Turkey Iran China India Chile Uzbekistan	Greece Australia Argentina South Africa

Listed by global production as per FAO but not necessarily meaning quantities going through commercial channels.