



Tomorrow Tastes Mediterranean

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CENTER



UNIVERSITAT DE
BARCELONA



Culinary Institute
of America



Tomorrow Tastes Mediterranean

International Conference
& Digital Magazine

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Kalamata and the Region
of Messinia, Greece
On-site & Online

Translating research-based
evidence into culinary practice
for healthier, more sustainable,
more delicious food for the future.

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Introduction

What if a centuries-old set of food cultures and dietary patterns that evolved out of the olive growing regions of the greater Mediterranean basin, the birthplace of Western civilization, were not simply delicious and engaging for contemporary appetites but also held critical, even existential lessons for nourishing personal and planetary health for a secure, global tomorrow?

Challenged by this question, the **Torribera Mediterranean Center** (TMC), a joint project of the University of Barcelona and The Culinary Institute of America, annually stages its **Tomorrow Tastes Mediterranean Conference** to consider a host of issues and questions inspired by the traditional Mediterranean Diet, including food choices and climate change; how the frontiers of nutrition research reveal the mechanisms by which the Mediterranean Diet supports chronic disease prevention; case studies in the business of change; culinary strategy in the olive oil-rich plant-forward kitchen; and much more.

In the fall of 2024, the TMC's 5th Tomorrow Tastes Mediterranean (TTM) conference was held at Faculty of Medicine of the University of Barcelona. What follows in the pages of this **Tomorrow Tastes Mediterranean Digital Magazine** are highlights from that program including sessions ranging from "The Mediterranean Diet and Its Impact in 2025—From the Latest Research to the Emergence of Culinary Medicine," "Sustainable and Healthy Strategies to Highlight Fish on our Menus," and "Connecting the Principles of the Mediterranean Diet to the Healthy Food Cultures of Asia" to "Life Climate Smart Chefs—Insights from a European Project to Engage Chefs in Advancing Low Emission, Nutritious and Affordable Diets." You can also watch on-demand videos of all of the sessions [here](#).

Thirty years ago, a global team of scientists, public health leaders, and culinary experts developed **The Mediterranean Diet Pyramid**, a high-impact presentation and elevation of the healthful food traditions of the Mediterranean that sparked much of the academic, public policy, and media interest in the Mediterranean Diet that followed. A 2024 review of the impact of that release, which changed the course of public health research and education, was recently published in the American Journal of Clinical Nutrition: "**Three Decades of the Mediterranean Diet Pyramid: A Narrative Review of its History, Evolution, and Advances**"

As the science about the healthfulness and sustainability of the Mediterranean Diet continues to accumulate and evolve, the opportunities for translation become ever more numerous, and more urgent. In the pages that follow, we invite you to discover some of the expanding diversity of pathways to make the bridge from science to action, all while celebrating the foundational role that food plays in our communities

Greg Drescher

Senior Advisor for Strategic Partnerships, Industry Leadership and Impact
The Culinary Institute of America

Since time immemorial, the Mediterranean has been a mosaic of encounters. It is a place where people navigate and intertwine, where ancestral knowledge is passed down through generations, where ingredients cross borders, and where stories simmer slowly over time. Its culinary heritage, recognized by UNESCO as an Intangible Cultural Heritage of Humanity, encompasses more than just recipes and techniques. It is a way of life, a celebration of community, a connection to the land and sea, and a commitment to health in everyday life.

In the face of today's complex global issues, such as climate change, health crises, loss of biodiversity, depletion of natural resources, and alarming disconnection from the origin of food, the Mediterranean diet is once again at the center of important global dialogues. It is not a nostalgic evocation of times past, but rather a compass to guide us towards a healthier, more sustainable, and more humane food model in the present and future.

In this urgent and hopeful context, the Tomorrow Tastes Mediterranean (TTM) conference is an internationally recognized forum that goes far beyond a gastronomic event. It is an essential meeting point for innovative chefs, researchers, food industry professionals, academic institutions, and social actors who share the common goal of rethinking what we eat, how we produce it, and its impact on our lives and the planet. In its sixth (2025) edition, the conference makes a symbolic and strategic move by being held in Greece for the first time, the geographical and symbolic heart of the Mediterranean. This new setting reflects a growing commitment to the diversity of voices, territories, and perspectives in the Mediterranean region. It also symbolizes the strong alliance between the University of Barcelona and the Culinary Institute of America, driven by the Torribera Mediterranean Center (TMC), which is the academic and culinary foundation of this initiative. The university brings rigor and interdisciplinary knowledge to this transformative scenario and becomes a bridge between research and action, theory and practice. The university's dedication to food innovation, training new talent, and promoting Mediterranean heritage enables Tomorrow Tastes Mediterranean to be more than just a gathering; it's an international platform for change deeply rooted in science and culture.

This year's theme, "Shaping our future at the intersection of Mediterranean culinary heritage, personal and planetary health, innovation and exchange" clearly expresses the spirit of the congress: looking forward without losing sight of the legacy that has brought us this far. It acknowledges that heritage's value lies in its capacity for adaptation, reinvention, and dialogue with the present's challenges, not in static conservation. It acknowledges that innovation is not only technological but also cultural, social, and emotional.

Our 2024-25 TTM digital magazine accompanies this transformative journey. Its pages—a distillation of our 2024 TTM conference—contain inspiring presentations, conversations with influential figures, analyses of emerging health, sustainability, and food innovation trends, and concrete examples of projects and policies that are already making a difference.

The future cannot be predicted, but it can be built. If it tastes like the Mediterranean, it is sure to be healthy, inclusive, and committed to the planet.

Mercè Segarra

Vice-Rector for Entrepreneurship, Innovation and Transfer
Universitat de Barcelona

02

The Mediterranean Diet: A Call to Action

This article has been written with contributions from the speakers of the panel **The Mediterranean Diet and its Impact in 2025—From the Latest Research to the Emergence of Culinary Medicine** - Moderator: Greg Drescher, Senior Advisor for Strategic Initiatives, The Culinary Institute of America; Napa, USA - Presenters: **Ramón Estruch**, Senior Consultant, Internal Medicine Department, Hospital Clinic; Professor of Medicine, University of Barcelona; Chair Scientific Advisory Council, Torribera Mediterranean Center; Barcelona, Spain. **Josep Vidal**, Chief of Endocrinology and Nutrition Service, Hospital Clinic; Barcelona, Spain. **Michel Lucas**, Professor of Epidemiology and Culinary Medicine, Faculty of Medicine, Laval University. Researcher, CHU of Quebec Research Center; Quebec City, Canada.

THE MEDITERRANEAN DIET: A CALL TO ACTION

Food-loving travelers can't help but notice (and rue) the growing prevalence of fast-food chains around the globe. McDonald's in Rome. KFC in Beijing. Taco Bell in Madrid. The tidal wave of fast food threatens the independent establishments that maintain local foodways, and it takes a toll on public health. The Mediterranean countries are no exception to this phenomenon. The Mediterranean Diet, one of the healthiest in the world, must contend with the allure of fast-food culture.

Those who understand the danger of losing more ground in this fight must step up to help reverse the trend. From physicians to chefs, from teachers to journalists, everyone in a position of influence can spread awareness of the benefits of the Mediterranean Diet.

Science supports this call to action. Leading media outlets such as *U.S. News & World Report* recommend the Mediterranean Diet pattern above all others. *The Lancet*, a major medical journal, stresses that good dietary habits are key to preventing disease and underlines the need for a diet—specifically the Mediterranean Diet—that also addresses lifestyle and cultural traditions. Physical activity, sociability and prioritizing seasonal foods are all pillars of the Mediterranean Diet, an approach to eating that does not view individual foods as good or bad but instead emphasizes the importance of moderation.

We must renew our commitment to advocate for the Mediterranean Diet and promote its role in good health. This article presents several studies to help those who are persuaded of the benefits of the Mediterranean Diet to convey its virtues with evidence rather than opinion.



THE MEDITERRANEAN DIET: LIFE EXTENDER?

The first statistic is staggering: adopting the Mediterranean Diet reduces the incidence of breast cancer (the second-deadliest cancer in the world) by 68 percent. A similar result emerged from the Predimed study carried out at the Hospital Clínic in Barcelona. Related studies such as Cordioprev in Córdoba also support the notion that the Mediterranean Diet has protective benefits for women.

These studies also suggest that adherence to the Mediterranean Diet (in which olive oil is the primary fat) can reduce cardiovascular disease by up to 30 percent and improve mental function. In the effort to maintain good physical and mental health as we age, the Mediterranean Diet can be a key ally.

Can it also extend our lives? The SUN study, carried out by the University of Navarre over 10 years and involving almost 40,000 people, showed that following the Mediterranean Diet reduced all-cause mortality by 23 percent.

These results are consistent globally. The Moli-Sani study in Italy, which involved nearly 30,000 participants, produced strikingly similar results: a 23 percent reduction in all-cause mortality. Likewise, a study published by *JAMA Network Open* tracked 25,000 individuals over 25 years and found that those who adhered to the Mediterranean Diet experienced a 23 percent reduction in all-cause mortality.

In summary, the Mediterranean Diet is not just associated with longevity. It is also, possibly, the most health-promoting diet in the world. The strong evidence for this claim underscores the importance of spreading its tenets worldwide.



RX:
A FISTFUL
OF ALMONDS

How much impact can a daily handful of almonds have on your health? One Spanish study aimed to determine just that.

The study, published in *Nutrients* in 2022, looked at the effect on adipose tissue of a Mediterranean Diet supplemented with almonds. Adipose tissue, commonly known as body fat, is an energy reserve that plays a crucial role in regulating metabolism. When adipose tissue malfunctions, results can include chronic inflammation, fat deposits where they shouldn't be and changes in the size and number of fat cells (adipocytes).

Study participants were obese women aged 18 to 60 who followed a Mediterranean Diet supplemented with 30 grams of almonds daily for several weeks.

After just a few weeks, the participants showed significant improvements, including:

- **Healthier adipocyte distribution:** Smaller adipocytes were observed, which is associated with greater insulin sensitivity.
- **Improved gene expression:** Positive changes in genes that promote angiogenesis (the formation of new blood vessels) and anti-inflammatory processes in visceral adipose tissue.
- **Reduced markers of inflammation:** Although not all markers improved, significant progress was seen in key indicators.

Participants with greater adherence to the diet demonstrated better results, suggesting the potential of almonds to improve adipose tissue health—a key factor in preventing cardiovascular diseases. Nuts are already considered a component of the Mediterranean Diet, but this study sheds light on how almonds in particular may contribute to better health.



FOODIE DOCTORS:
CULINARY MEDICINE
ON THE RISE

For the past 60 years, the scientific community has highlighted a major gap in medical training: the inadequacy of nutrition education. Even now, this issue remains largely unaddressed. A 2018 study published in *The Lancet* confirms that medical students are not receiving the training they need to advise patients on healthy eating. This shortfall not only limits their ability to influence eating habits but also perpetuates their lack of confidence in addressing crucial nutrition-related issues.

A novel approach to medical education, termed “Culinary Medicine,” aims to change the way nutrition is taught in medical schools. Culinary Medicine combines solid medical and nutrition education with practical training in the culinary arts. The idea is not only to teach future physicians about healthful diets but also to equip them to help patients develop positive eating habits.

This new discipline has been tested at Laval University in the Canadian province of Québec. Over 15 weeks, second- and third-year medical students were divided into two groups: an experimental group trained in Culinary Medicine and a control group (no intervention).

The program included online courses with international nutrition experts, hands-on cooking classes and tastings on topics such as Mediterranean cuisine, fermentation and allergen-free cooking. Students also became teachers by sharing recipes with their peers.

The Laval University students had expressed dissatisfaction with the lack of nutrition education in their curriculum. After the intervention, the experimental group demonstrated greater confidence in providing nutritional advice; improvements in food self-efficacy (their own evaluation of their cooking and provisioning abilities) and attitudes toward healthy eating; and a reduction in structural barriers such as lack of time.

All of this points to a promising future for Culinary Medicine. Training future physicians in both nutrition and culinary skills will enable these professionals to advise on diet with greater confidence and expertise.





03

From the Net to the Plate: Restoring Demand for Seafood

This article has been written with contributions from the speakers of the panel **Sustainable and Healthy Strategies to Highlight Fish on our Menus** - Moderator/ Presenter: **Helena Martín**, Director of the Culinary Arts and Gastronomy Research Group, CETT-UB Tourism & Hospitality; Barcelona, Spain - Presenters: **Arnau Subías**, Marine Scientist, Creator of the GASTROBIO concept. Professor, Barcelona Culinary Hub; Barcelona, Spain. **Gontrán de Ceballos Herrero**, Sales Manager, Esteros Lubimar; Barbate, Spain. **Antonio Nieto**, General Manager, Pesca España; Madrid, Spain. **Montse Millán**, Owner of the fish shop La Barqueta, Les Corts Market; Barcelona, Spain.

FROM THE NET TO THE PLATE: RESTORING DEMAND FOR SEAFOOD

The people who set out to sea today in search of the fish that lurk in our oceans are typically armed with sophisticated gear. But in their mission, they aren't that different from fishermen of ancient times, who waded barefoot into the river in search of food for the family. Seafood has provided sustenance for humans since ancient times.

Yet fish remains a mystery to many. Fish consumption in Spain has fallen by 34 percent since 2008, according to data from the Ministry of Agriculture and Fisheries. Perhaps, some surmise, consumers lack the time to cook fish or are deterred by its price. Then how to explain that Norwegian salmon fillet is the most-consumed fish in Spain, surpassing hake and dozens of cheaper and more accessible species? Even a novice cook can bake a salmon fillet, but it takes a little culinary confidence to tackle anchovies or cuttlefish. Lack of time and, perhaps, fear of failure are keeping us away from one of the key foods of the Mediterranean Diet.

For a discussion about how to return seafood to our tables, we turn to five experts with different perspectives. How can fishermen, fishmongers, fish farmers, researchers and chefs bring us back to the fish consumption of prior times, with sustainable practices that will allow us to enjoy seafood for generations to come?



THE FISHING PERSPECTIVE



Reversing the decline in seafood consumption is a key objective for Pesca España, an organization devoted to supporting Spain's economically important fishing sector. The decline is "worrying," says Antonio Nieto, the organization's director, who believes that campaigns based on science can allay consumers' fears.

Reports about the dangers of mercury in tuna or cadmium in shrimp need to be combatted with data, says Nieto. "At Pesca España, all our communications are based on scientific reports."

One pillar of Pesca España's activities is educating young people about the benefits of fish consumption and helping them conquer their reluctance to try it. Representatives from the organization ring fresh seafood into schools so youngsters can touch the fish and become familiar with it.

"We give voice to the fishermen," says Nieto. "Through us, they communicate about their work and their sustainable practices. The fishing sector is not part of the problem but part of the solution."

THE AQUACULTURE PERSPECTIVE



Historians tell us that the ancient Romans practiced fish farming in estuaries, the mouths of rivers where fresh water and ocean water meet. Natural pools form in these estuaries, the ideal environment for culturing some fish species. Today, centuries later, aquaculture companies like Esteros Lubimar use the same methods as the Romans to breed sea bream and sea bass in the estuaries of Cádiz and Huelva.

Esteros Lubimar’s approach combines traditional and modern techniques. “The estuary is divided into a semi-intensive zone, where the fish are, and an extensive zone, where we accumulate water,” says Gontrán de Ceballos Herrero, sales manager for Esteros Lubimar. Modern aquaculture, as practiced by Lubimar, demonstrates the integration of sustainable practices with state-of-the-art technology.

Lubimar’s fish harvest “exceeds the standards of traditional aquaculture” because they fish respectfully and harvest to order. “One day we may catch 15,000 fish, the next day 2,500,” says de Ceballos. “It depends on what the customer needs.” The bright silver appearance of the Lubimar fish testifies to the quality of life in the estuary. By delivering a product that consumers perceive as equivalent to wild fish, the company hopes the public will lose its fear of aquaculture. The estuary method could be the future of aquaculture.

THE FOOD-WASTE PERSPECTIVE



Culinary schools like CETT, one of the leading educational institutions in Barcelona, do more than train cooks. They teach knife skills, of course, but they also raise awareness of real-world issues beyond the classroom. Ideally, students leave with the tools to make the world a better place. That is why CETT is home to researchers like Helena Martín, who works on strategies to transform food waste into food—a “from the garbage to the table” approach that is spurring innovation in the use of seafood.

Martín’s work is based on troubling data. Only 38% of the total fish catch today is used for food. “Between seven and ten million tons of fish are thrown away every year,” says Martín.

Boneless fish fillets represent only 30% to 60% of the creature. The remainder typically ends up in the garbage.

That is why CETT researchers are looking for a way to upcycle this waste. Fish bones can be converted to fish meal, a flour suitable for both sweet and savory preparations. The scales are rich in collagen, which can be used for gelatin similar to animal-based gelatin.

Spaniards pride themselves on using every scrap of the pig, and the same can and should be true for fish. CETT researchers have developed sausages with fish byproducts such as the head, bones, scales and guts. Fish skin can replace pork casings. Full utilization of seafood not only reduces waste but also makes it possible to create innovative and appealing products that further the concept of sustainable cuisine.

THE CHEF'S PERSPECTIVE

Chefs are often the first to arrive at the wholesale fish markets, to snap up the freshest fish for their business. That's why restaurants are such an effective venue for educating about seafood, with the aim of returning more of it back to our tables.

Expanding knowledge is the mission of GASTROBIO, a project devised by marine scientist Arnau Subías to bring together fishing, marine biology and gastronomy for research and education. The goal of the work, says Subías, is “deepening our knowledge of seafood and knowing the traceability of all the marine products we use.”

Launched in 2022 with Spanish chef Rafa Zafra and the support of Ferran Adrià, GASTROBIO aims “to know absolutely everything about a product, from the moment it is born until it reaches our table.”

The project has undertaken multiple activities—first among them, a taxonomy of all the seafood consumed in Spain. The organization's Instagram conveys the results of this work. This in-depth classification will help chefs, fishmongers and consumers avoid common misidentification, such as mistaking different types of scallops.

Another line of inquiry is traceability, to “know absolutely everything about a product,” says Subías, “from the moment it is born until it reaches our table, including how it was caught.”

The organization's Instagram also includes videos demonstrating, for example, the best way to break down bluefin tuna. Such an “autopsy” allows researchers to consider uses for every part of the fish.

GASTROBIO also documents the type of fishing gear used commercially in Spain. “We have collected almost 40 types of fishing gear, large and small,” says Subías.

The organization's research is made available to consumers so they can be better informed and to chefs so they can prepare seafood more mindfully. GASTROBIO is supplying information and tools we need to manage the ocean's resources better.



THE FISHMONGER'S PERSPECTIVE

For consumers, retail fish markets are the showcase for the fishing trade.

The figure of the fishmonger, like that of the butcher or the greengrocer, is a popular icon that represents local food. Montse Millán, from the La Barqueta stall at the Les Corts Market in Barcelona, is an articulate exponent of the monger's work and point of view.

“We work from the bottom up, providing a direct service to the consumer,” says Millán. Her guild is asking for a reduction in VAT because fish is taxed as a luxury product “when it is an essential product,” says the monger. Higher taxes mean higher prices, which keep people from eating fish, she argues. And when they don't consume fish they suffer higher rates of cardiovascular disease and other diseases.

Shoppers should not be afraid to ask their monger to show them the fish label, says Millán. These tracking labels are mandatory and show where a fish comes from, how it was caught and who caught it—reliable assurance that it was caught legally and sustainably.

Finally, mongers have a key role in advocating lesser-known species. By guiding customers to these abundant and less costly seafood options, they enhance public health and help sustain our ocean resources.





These recipes were demonstrated
at the cooking workshop

SUSTAINABLE FISH ON THE MENU: OF APPETITES AND INNOVATION

Moderator: **Martín Federico Alba**,
Director of the University Degree in
Gastronomic
Management, Barcelona Culinary Hub;
Barcelona, Spain

Presenters: **Arnau Subías**,
Marine Scientist & Gastrobiologist, GastroBio.
Professor, Barcelona Culinary Hub; Barcelona,
Spain

Gonzalo Hernández,
Executive Chef, Amar Restaurant; Barcelona,
Spain

BOILED RED PRAWNS



1 serving

HYDRATED SEAWEED

INGREDIENTS

- 10 g sea lettuce
- 10 g sea string
- 10 g royal kombu
- 10 g sweet seaweed

INSTRUCTIONS

1. Clean the seaweed in plenty of water to remove the salt.
2. Store the well-drained seaweed in a container in the refrigerator.

COLD BOILED PRAWN

INGREDIENTS

- 60 g red prawn (1 unit)
- Seawater
- Seaweed
- Crushed ice
- Fine salt

INSTRUCTIONS

1. Weigh the prawns and note the weight.
2. Cook the prawns in boiling seawater until they float.
3. Transfer to a well-salted ice bath to cool.
4. Cover a tray with crushed ice and seaweed, and place the prawns, skewered, on the ice by the tail, giving height.

WARM BOILED PRAWN

INGREDIENTS

- 60 g red prawn (1 unit)
- Seawater
- Seaweed
- Fine salt

INSTRUCTIONS

1. Weigh the prawns and note the weight.
2. Cook the prawns in boiling seawater until they float.
3. Cover a serving plate with seaweed and place the prawns on top.

SEA CUCUMBERS FROM ROSES



1 serving

TO CLEAN THE SEA CUCUMBERS:

INGREDIENTS

- Sea cucumbers (uncleaned)

INSTRUCTIONS

1. First, use a small knife to cut the sea cucumbers in half without separating the two halves. Remove the ends and clean the interior of any soil remains.
2. Weigh portions of 100g and store in the refrigerator.

TO COOK THE SEA CUCUMBERS:

INGREDIENTS

- Mild olive oil, as needed
- Freshly ground black pepper, to taste
- Extra-virgin olive oil, as needed

INSTRUCTIONS

1. Cook 100g of the prepared sea cucumber, underside down, on the grill. Before flipping add the mild olive oil to the cooking surface.
2. Flip the sea cucumbers, checking that they are well-marked.
3. Once they are well-marked and cooked, transfer the sea cucumber to a serving plate.
4. Finish with freshly ground black pepper and extra-virgin olive oil.

SEA URCHIN WITH PRAWN TARTARE AND CAVIAR



5 servings

TO CLEAN THE SEA URCHINS:

INGREDIENTS

- Sea urchins
- Seawater

INSTRUCTIONS

1. Open the sea urchins from the base using scissors, making a 2-cm diameter circle.
2. Empty all the first impurities of the sea urchin into a bowl.
3. Place the opened sea urchins into a large bowl of seawater.
4. Use a coffee spoon or tongs to remove any remaining impurities.
5. Only the perfectly clean roe should remain inside the sea urchin shell.

OTHER INGREDIENTS

- 3g of caviar

FOR THE TOAST:

INGREDIENTS

- Mossén bread

INSTRUCTIONS

1. Cut the bread into very thin slices, about 5-mm.
2. Place them on a flat Gastronorm tray and bake at 170° C for 7 minutes. Rotate the tray and bake for another 7 minutes to ensure even cooking.
3. Reserve in a container with absorbent paper and a silicone sheet.

FINAL PREPARATION

1. Make 5 quenelles of prawn tartare and place them inside the sea urchin next to each roe.
2. Finish with 3g of caviar in the center of the sea urchin and serve with 4 toasts of Mossén bread.

FOR THE PRAWN TARTARE:

INGREDIENTS

- 180 g prawn
- Extra-virgin olive oil
- Lemon
- Salt
- Freshly ground black pepper

INSTRUCTIONS

1. Cut the head from the prawn with a knife and separate it from the tail.
2. Peel the prawn tail, remove the intestine, and chop the prawn into small pieces. The pieces should not be mashed, as we do not want to lose the texture of the prawn.
3. Season the prawn tartare with olive oil, lemon zest, salt, and pepper.
4. Reserve until plating.
5. Place quenelles of prawn tartare inside the sea urchin shell, top it with caviar, and serve with the crispy Mossén bread toasts.



LLENA TU MESA DE *Mar.*

— EL PAÍS MÁS RICO DEL MUNDO —
#alimentosdespaña

04



Making the Case for Olive Oil

This article has been written with contributions from the speakers of the panel **When to Choose Olive Oil and/or EVOO?**
Research Insights around Health and Culinary Performance to Give Answers to Chefs and Consumers - Moderator/Presenter: **Rosa M. Lamuela-Raventós**, Ph.D., Full Professor of Nutrition and Bromatology and Researcher at the Institute of Nutrition and Food Safety, University of Barcelona and CIBEROBN; Barcelona, Spain - Presenters: **Jean Xavier Guinard**, Ph.D., Professor of Sensory Science on Translational Sensory/Consumer Insight research, University of California; Davis, USA. **Teresa Pérez**, General Manager, Interprofesional Aceite Oliva de España; Madrid, Spain.

MAKING THE CASE FOR OLIVE OIL

No Spaniard is unfamiliar with the idea that olive oil is better than sunflower oil, that frying with olive oil is healthier, and that extra virgin olive oil tops all other types. Yet, if asked to explain these convictions, many might struggle to do so.

Fortunately, science largely supports this faith in olive oil. Research increasingly confirms that it is one of the best cooking fats in the world.

Here we present three studies that validate Spanish confidence in the superiority of olive oil.



UNDERSTANDING CONSUMER PREFERENCES



Researchers at the University of California, a world-renowned academic institution, have spent years studying olive oil. Their inquiries focus on its role in cooking, on its sensory qualities and on consumer preferences.

“Cooking with Olive Oil: A Consumer Perspective” is their summary of some of this research. The work aims to clarify what consumers like and dislike in olive oil; to determine how much olive oil they consume; and to predict their likelihood of purchasing a particular oil again.

The research identified three key variables affecting consumer choice:

- Product attributes, such as price and flavor
- Consumer characteristics, including genetics, physiology and political preferences
- Context, such as the environment or culture in which the product is consumed

Researchers concluded that consumer response to olive oil reflects all three variables: the product’s attributes, the consumer’s personal characteristics and the context in which the oil is consumed. Context—both physical and cultural—profoundly influences how we perceive and enjoy food. For example, our perception of coffee differs depending on whether we are consuming it at home or in a specialty coffee shop. Similarly, our cultural background creates predispositions to certain sensory profiles.

The research supports the notion that most food preferences aren’t innate; they are learned, likely through repeated exposure and experience. The expectation that we can learn to like a food is particularly relevant for olive oil, whose robust sensory qualities may seem complex or off-putting initially but come to be appreciated over time.

“Can we teach consumers to enjoy these oils?” the study asks. The answer is yes.

The researchers identified four sensory categories in olive oil that are useful for communicating with consumers:

- Ripe Fruity: an oil with aromas of nuts or butter
- Green Fruity: an oil with aromas of herbs, tomato leaf or unripe banana
- Robust: an oil with a pronounced bitter or sharp flavor
- Defective: an oil that has been exposed to oxygen or fermentation, resulting in undesirable aromas and flavors

These four categories elicit different reactions from consumers. The study revealed three primary groups: consumers who enjoy green fruity oils; those who prefer oils with a smooth and buttery profile; and a more challenging group that rejects bitter and astringent oils. The existence of the latter group is not surprising as many tasters have an aversion to bitterness.

The UC team also conducted a multicultural study in Spain, Italy and California evaluating consumer response to the substitution of olive oil for butter. Four types of extra virgin olive oil and two types of butter were tested in dishes featuring fish, spaghetti, green beans and cake. Significant national differences emerged. Italians preferred green and buttery oils, while Californians tended toward milder profiles.

Ultimately, olive oil preferences are shaped by cultural background, exposure and experience. This multivariate approach not only deepens our understanding of olive oil preferences but also creates new opportunities to educate about and promote this pillar of the Mediterranean diet.

EAT SOFRITO, LIVE LONGER?



The University of Barcelona has also been studying the properties of extra virgin olive oil as a cooking medium for years. Given the importance of this ingredient in the Mediterranean diet, such research is fundamental.

Experiments undertaken in collaboration with the University’s Torribera campus suggest that extra virgin olive oil may be the best option for frying. In these studies, the properties of the oil were evaluated at cooking temperatures ranging from 120°C to 170°C, replicating domestic conditions. How long did it take to cook a chicken at various temperatures? How did high temperatures affect the oil’s antioxidants?

Although antioxidants decrease with heat, the results suggest that a significant portion are retained, preserving the oil’s health benefits. This finding reinforces extra virgin olive oil’s ability to meet the standards set by European Union health authorities.

In addition to analyzing the heat stability of the oil, the researchers also looked at how olive oil interacts with other foods.

For the experiment¹, 40 volunteers tested a tomato sauce made with olive oil and another prepared without oil. The results were conclusive. “The sauce with oil had a significantly greater anti-inflammatory effect,” the researchers reported. “The anti-inflammatory properties of the oil are transferred to the food... during cooking, enriching its composition and improving its nutritional value.”

This study led to a spin-off, focusing on sofrito², the fried mixture of olive oil, onion, garlic and tomato that underlies many Mediterranean dishes. According to the researchers, “longer cooking times improve the absorption of beneficial compounds from tomatoes, enhancing their beneficial effects.” Such studies validate the intuitive nutritional wisdom of ancestral cooking methods.

Recently, the University of Barcelona also launched the UNIVO project in collaboration with other prestigious institutions such as the Culinary Institute of America, IRTA and the University of California at Davis. This initiative aims to examine the differences between cooking with extra virgin olive oil versus cooking with refined olive oil.

- The project has four tracks:
- Evaluation of cooking techniques, such as air fryers and frying pans;
 - Clinical trials with volunteers;
 - In vitro studies to analyze anti-inflammatory effects;
 - Computational science to model the compounds formed during cooking and their effects on the body.
- The project involves researchers from several continents, ensuring a global approach.

¹ <https://pubmed.ncbi.nlm.nih.gov/26887966/>
² <https://pubmed.ncbi.nlm.nih.gov/28847422/>

STUDY IDENTIFIES BARRIERS AND OPPORTUNITIES

The Interprofesional del Aceite de Oliva Español plays a key role in both the research and promotion of olive oil. In 2024, the agency launched a study that sought to answer one question: How do consumers perceive and use olive oil and extra virgin olive oil? The study also addresses some common myths about olive oil.

The investigation covered both domestic and international markets, including Spain, the United States, Germany and China. The results provide a picture of consumption trends, the levers that encourage olive oil use and the barriers that work against it. The aim was to shed light on olive oil’s place and potential in contemporary kitchens.

Although extra virgin olive oil remains indispensable to Spanish gastronomy, significant price increases are causing shifts in consumption, driving more consumers toward refined olive oil or sunflower oil.

- The study illuminated some key aspects of the relationship between Spaniards and olive oil:
- Although many think they know a lot about olive oil, they tend to choose familiar brands, disregarding sensory aspects, origin or olive varieties.
 - They lack information about which type of oil is best for which dish.
 - They associate quality with price.
 - They don’t fully appreciate olive oil’s versatility.

Chief factors driving olive oil consumption in Spain are flavor and national pride. Barriers include price, lack of awareness of olive oil’s versatility and the influence of large lobbies that do not always promote the use of olive oil.

In the other countries studied, olive oil is perceived as “a typical Spanish product, healthy and of high quality, associated with the Mediterranean diet.” Yet many consumers in these countries consider olive oil a high-priced luxury, which limits its widespread adoption. Many Chinese consumers lack knowledge of olive oil, and its unfamiliar flavor is a barrier for some.

To overcome these barriers, the researchers recommend emphasizing the strengths and health benefits of olive oil and dispelling the myth that it is not suitable for high-heat cooking.

Labels with quality indicators can boost confidence in the product. Communication through influencers, cookbooks and cultural activities can also raise awareness about the varieties and benefits of olive oil.





These recipes were demonstrated
at the cooking workshop

KITCHEN STRATEGY: VERSATILITY OF OLIVE OIL AS A GASTRONOMIC TRANSFORMER

Moderator: **Martín Federico Alba**,
Director of the University Degree in
Gastronomic
Management, Barcelona Culinary Hub;
Barcelona, Spain

Presenter: **María Pérez Bosch**,
Associate Professor (Serra Hunter program)
at the University of Barcelona.
Member of the Polyphenol Research Group
(INSA-UB); Barcelona, Spain

Periko Ortega, Chef and Owner,
ReComiendo Restaurant. Executive
Chef and Technical Director, Power Group;
Córdoba, Spain

GRANDMA'S FRIED GAZPACHO



14 servings

INGREDIENTS

Sea cucumbers (uncleaned)

- 2 kg cherry tomatoes
- 1 red pepper
- 1 large onion
- 3 cloves garlic
- 1 kg roasted pear tomatoes
- 200 g extra-virgin olive oil, plus more for brushing
- 70 g salt
- Ground black pepper, as needed
- 150 g vinegar
- 100 g sugar
- 15 g cumin
- 70 g salt
- 2000 g water

INSTRUCTIONS

1. Place the tomatoes, pepper, onion, garlic, and tomatoes on a sheet pan. Brush with the oil and season with salt and pepper. Roast all the vegetables at 180°C for 20 minutes.
2. In a large container, combine the roasted vegetables, vinegar, sugar, cumin, salt, and water.
3. Blend well with a blender until a homogeneous mixture is achieved.
4. Using a Thermomix and working in batches, emulsify the mixture with the 200 g extra-virgin olive oil.
5. Strain through a fine mesh sieve.
6. Store in a tightly closed container in the refrigerator, labeled with the date and name.

SEA BASS CURED IN EXTRA-VIRGIN OLIVE OIL



4 servings

INGREDIENTS

- 1 sea bass
- 500 g extra-virgin olive oil

INSTRUCTIONS

1. Clean, debone, and remove the skin of the sea bass.
2. Cut the belly and reserve.
3. Cure the loins in the olive oil for 48 hours.
4. Drain.
5. For serving, slice and plate.



TUNA TARTARE

4 to 10 servings

INGREDIENTS

- 400 g tuna
- 100 g extra-virgin olive oil
- 1 lime
- Spring onions, to taste
- 50 g soy sauce
- 20 g old-fashioned mustard
- 10 g sriracha

INSTRUCTIONS

1. Cut the tuna into 0.5 cm cubes.
2. Grate the lime over the tuna and then add the juice.
3. Chop the spring onion.
4. In a container, combine the spring onion, soy sauce, mustard, and sriracha. Add the tuna and marinate for 5 minutes.



ALMOND NOUGAT AJOBLANCO

7 to 10 servings

INGREDIENTS

- 200 g almond nougat
- 3 garlic cloves, germ removed
- 50 g vinegar
- 1.5 L water
- 75 g extra-virgin olive oil
- 15 g salt

INSTRUCTIONS

1. In a Thermomix, blend the almond nougat with the garlic and vinegar.
2. Add the water little by little.
3. Emulsify with the olive oil. Season with salt.
4. Strain into a clean container.
5. Label with the date and name, and store in the refrigerator.

"SOPAIPAS"



3 to 4 servings

INGREDIENTS

- 150 g wheat flour
- 35 ml water
- 1 beaten egg
- 2 g salt

INSTRUCTIONS

1. In a bowl, mix the flour, water, and egg.
2. Knead for 10 minutes.
3. Let the dough rest for 30 minutes.
4. Roll out the dough with cornstarch until it is 1-mm thick.
5. Cut into portions.
6. Fry in extra-olive oil.
7. Keep at room temperature.

"PRINGÁ" CREAM

INGREDIENTS

- 1.5 kg pringá from the stew
- 500 g stew broth
- 100 g extra-virgin olive oil
- 100 g vinegar
- 10 g salt

INSTRUCTIONS

1. In a bowl, add the warm pringá.
2. Add the hot stew broth.
3. Knead while adding the olive oil, vinegar, and salt.
4. Emulsify in a Thermomix until a lump-free mixture is achieved.

PICUAL EVOO CHOCOLATE BROWNIE



12 to 16 servings

INGREDIENTS

- 500 g dark chocolate
- 240 g Picual extra-virgin olive oil (EVOO)
- 6 egg yolks
- 70 g sugar
- 500 g egg whites

INSTRUCTIONS

1. In a bowl, melt the chocolate.
2. Mix the chocolate with the olive oil.
3. In a separate bowl, beat the egg yolks with the sugar.
4. Fold together the chocolate mixture and the egg yolk mixture.
5. Separately, in a clean bowl, beat the egg whites until stiff peaks form.
6. Fold the egg whites into the chocolate-egg yolk mixture.
7. Pour into a baking tray lined with parchment paper and bake at 180°C for 20 minutes.

ARBEQUINA EVOO CHOCOLATE AND HAZELNUT CREAM



10 to 12 servings

INGREDIENTS

- 250 g cream
- 250 g milk
- 160 g egg yolk
- 150 g milk chocolate
- 250 g hazelnut praline
- 50 g Arbequina Extra-virgin olive oil (EVOO)

INSTRUCTIONS

1. In a Thermomix, combine the cream, milk and egg yolk.
2. Heat the mixture to 83°C.
3. Remove from heat and add the chocolate and praline.
4. Mix until a lump-free cream is achieved.
5. Add the olive oil, and mix well.
6. Refrigerate until set.

KORONEIKI EVOO YOGURT SOUP

6 servings

INGREDIENTS

- 500 g sheep's milk yogurt
- 60 g honey
- 100 g Koroneiki extra-virgin olive oil (EVOO)

INSTRUCTIONS

1. Emulsify all the ingredients in a Thermomix until the desired texture is achieved.



HOJIBLANCA EVOO ORANGE GEL

10 to 12 servings

INGREDIENTS

- 6 gelatin sheets
- 500 g orange juice, divided use
- 50 g sugar
- 100 g Hojiblanca extra-virgin olive oil (EVOO)

INSTRUCTIONS

1. Hydrate the gelatin in ice water.
2. In a small pot, combine 100 g of the orange juice and the sugar. Stir to dissolve.
3. Heat the sugared juice and add the gelatin and stir to dissolve.
4. Add the remaining 400 g of the juice and let it set in the refrigerator for 2 hours.
5. Emulsify with the olive oil in a Thermomix.

INTRODUCING
THE PERFECT
ACCESSORY.
THE OTHER ONE
IS JUST A HANDBAG
EXTRA VIRGIN
OLIVE OIL



An aerial photograph of Barcelona, Spain, showing a dense urban landscape with numerous buildings and a central street. A large, white, stylized '05' is overlaid on the left side of the image, with the cityscape visible through the cutouts of the numbers.

05

Cities at the Forefront of Food Change

This article has been created with the participation of the Barcelona City Council and highlights the city's efforts through its Healthy and Sustainable Food Strategy Barcelona 2030. With more than half the global population living in urban areas, cities are becoming essential drivers of food transformation. This article explores how Barcelona is leading by example—through public-private collaboration, educational programs, support for local producers, and public events—to build a healthier, fairer, and more sustainable food system.

CITIES AT THE FOREFRONT OF FOOD CHANGE

Today, cities are essential agents in transforming the food system. They are home to more than half of the world’s population and account for the consumption of food produced around the globe. For this reason, Barcelona aims to set an example with the Healthy and Sustainable Food Strategy Barcelona 2030, which is based on three fundamental pillars:

- **For people:** Healthy, safe, and accessible diets.
- **For the economy:** a local, innovative, and fair value chain.
- **For the planet:** Ecological systems that regenerate soil, preserve biodiversity, and minimize emissions and waste.

THE CITY AGREEMENT: THE COLLECTIVE ENGINE OF FOOD CHANGE

In November 2022, the City Agreement for the Healthy and Sustainable Food Strategy Barcelona 2030 was formalized. This agreement establishes a platform for public-private collaboration, uniting administrations, universities, social organizations, guilds, businesses, and restaurateurs. The goal is to transform the strategy into tangible actions.

The agreement establishes a framework for ongoing collaboration, enabling the, at the moment, 26 participating organizations to present concrete commitments that address challenges such as reducing food waste and promoting universal access to healthy diets.

Members also participate in working groups, gain visibility at events such as the Healthy and Sustainable Food Awards, and establish a direct line of communication with the City Council to adjust and advance the implementation of the city’s food policy.



FROM PACT TO ACTION

With the impetus of the City Agreement, the Barcelona City Council transforms collective commitments into real actions. In this vein, the council promotes and supports various projects related to sustainable food, such as:

1. PROXIMITY PRODUCTION AND DISTRIBUTION

To strengthen the short supply chain and guarantee fresh km.0 products, two key initiatives stand out:

- **Terra Pagesa [Farmer's land]**, a food exchange center that connects producers, distributors, catering services, and restaurateurs directly, promoting fair prices and transparency.
- **Comerç Verd [green commerce]** is an initiative that increases the visibility of local products with organic, short-circuit, and quality certifications in the city's municipal markets. Currently, 481 municipal market stalls are part of this program.

2. EDUCATION AND CONSCIOUS CONSUMPTION

To educate the general public and professionals, training programs are developed that are adapted to each stage of the supply chain.

- **Healthier and more sustainable dining rooms:** An educational program offering informative materials to promote food as a pillar of health and learning. Beyond the menus, the program raises awareness among children by connecting what they eat to the planet, their territory, and their health.
- **“Alimenta’t amb seny” [Eat with sense]:** Educational program that invites reflection on the current food system. It explores alternatives to daily food choices and values the work of farmers and the importance of conscious food consumption.

3. INNOVATION AND COORDINATION

To catalyze innovation and ensure coherence between all actions, spaces for governance and collaboration have been created.

- **Oficina Conjunta de la Alimentación Sostenible (OCAS) [Joint Office for Sustainable Food]:** composed of the Barcelona City Council, the Barcelona Metropolitan Strategic Plan, PRODECA, and the Generalitat de Catalunya. OCAS is an inter-administrative coordination space that promotes new public policies and awareness-raising actions in the territory.
- **Agròpolis:** A public community space promoted by the Barcelona City Council that fosters dialogue, collaboration, and action among civil society, businesses, universities, and the municipal government. The shared objective is to transform Barcelona's food system based on the principles of food sovereignty and agroecology.

4. SPACES FOR VISIBILITY AND RECOGNITION

To give producers and sustainable catering more visibility and recognition:

Terra i Gust [Land and taste]: During the Mercè festivities in Barcelona, this sustainable food festival is hosted in Ciutadella Park. Fifteen Barcelona restaurants present small portions made with local, seasonal products and minimum waste protocols. In addition to the gastronomic area, the festival has an activity area with show cooking, workshops, games, and talks to help us learn how to change our habits and discover the world of gastronomy through more sustainable practices without sacrificing the pleasure of good food.

Mercats de Forquilla [Fork's markets]: In celebration of Catalonia's designation as the 2025 World Region of Gastronomy, Barcelona is promoting this series of six showcookings throughout the year. These events highlight sustainable, traditional, and innovative Catalan cuisine.

Gastronomic Forum: In this reference hall for hospitality and gastronomy professionals, Barcelona showcases sustainability through activities organized in the Mercat Barcelona classroom. The Barcelona City Council promotes this space through the Urban Food Policy Section, in collaboration with Mercabarna. It offers content and experiences focused on responsible food.





Estratègia
d’Alimentació Sostenible
Barcelona
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Ajuntament de
Barcelona

06

Phylla, Phyllo and Carob Pods: Pillars of Greek Cuisine

This article has been written with contributions from the speakers of the panel **The Eastern Mediterranean Plant-Forward Kitchen: Regional Crosscurrents of Heritage, Creativity and Invention** - Moderator: **Xenophon Kappas**, General Manager, Captain Vassilis & Carmen Constantakopoulos Foundation; Athens, Greece - Presenters: **Aglaia Kremezi**, Journalist and Author of Several US Published Books on Greek and Mediterranean Cooking, among them *The Foods of the Greek Islands*; Kea, Cyclades, Greece. **Manolis Papoutsakis**, Chef & Co-Owner, Haroupi, Ten Tables and Pharaoh Restaurant; Thessaloniki / Athens, Greece.

PHYLLA, PHYLLO AND CAROB PODS: PILLARS OF GREEK CUISINE

In Thessaloniki, one of the largest and oldest cities in Greece, Manolis Papoutsakis owns the restaurant Haroupi. The word is Greek for carob, a tree present in the Mediterranean basin for millennia. Carob is so deeply rooted in Greek culture that its seeds, known for their uniformity, gave rise to the term *keration*, a unit of measure for weighing precious metals and the origin of the English word carat.

Far away from Thessaloniki, in the national capital of the United States, diners partake in mezze made with the finest of handmade phyllo, proof that a rich and vibrant cuisine can re-root in every corner of the globe.

What follows is a tribute to three pillars of Greek gastronomy, ingredients that illustrate both the resourcefulness of Greek cooks and the infinite wealth of the Mediterranean basin.



PHYLLA: WHAT DO YOU GROW WHEN THERE ARE NO FIELDS TO CULTIVATE?

Beyond the paradisiacal beaches of Greece and its beautiful white villages lies an arid landscape, the country has few large plains suitable for cultivating row crops, so people traditionally grew their own fruits and vegetables. In such an unpromising setting for commercial agriculture, the wild herbs and greens that sprout unbidden in fields and crevices are a prized harvest, baptized as *phylla*. Greeks have so mastered the cookery of these foraged greens that they consider it a point of cultural pride.

Grape leaves are, of course, highly esteemed for the famous *dolmades*. But they are not the only leaves sought out for stuffing, usually with a vegetarian filling. This longstanding culinary custom has been validated by nutritionists as extremely beneficial for health, yielding dishes rich in polyphenols and other nutrients.

Greeks appreciate bitter flavors, which are often present in this type of *phylla*. Stinging nettles, often disdained in other parts of the world, are welcomed in the Greek kitchen, where they are blanched to remove the sting, then braised in olive oil to make them sweet and tasty.

The same happens with the bitter chicory or oyster thistle (*Scolymus hispanicus*), which is much appreciated in Crete (and some parts of Spain, including Andalusia). The Greeks prepare it with olive oil and lemon, transforming this humble “weed” into a delicious, affordable and nutritious dish that reflects the high regard Greeks have for foraged greens.



PHÝLLO: THE LEAVES THAT COVER THE LEAVES

In ancient and modern Greek, the word *phýllo* means leaf and is used to refer to vegetable leaves or to thin layers in general.

Unlike a sturdy bread dough, phyllo is as thin and delicate as a flower petal. It is the basis for spanakopita (spinach pie), baklava and a large repertoire of sweet and savory pies, not only in Greece but throughout much of the Mediterranean basin and the Middle East.

Perhaps the best-known and beloved dish in this category, *spanakopita* (and its close relative, *hortopita*) consists of a mixture of spinach and/or wild herbs encased in phyllo—a sort of Greek sandwich. One of the national dishes of Greece is phylla wrapped in phyllo—in other words, leaves surrounded by leaves.

Almost 25 years ago, when Spanish chef José Andrés was planning his restaurant, Zaytinya, in Washington, DC, he asked Greek food authority Aglaia Kremezi for advice. “You can’t dare open a Greek restaurant without making your own phyllo,” she told him firmly. Andrés found a Syrian expert to teach his cooks how to roll phyllo by hand, and today, all of the chef’s Mediterranean-themed restaurants make their own.



Spanakopita has traveled the world, a Greek culinary ambassador. As with pizza, travel has transformed it, but region-specific versions of this iconic pie still persist in Greece.

In northern and central Greece, cooks produce large phyllo pies. In the south, people prefer smaller versions. In the eastern Mediterranean, thin layers of phyllo are cooked over a hot dome to make *saj*, a type of unleavened bread, while in Crete, fried spiral pastries called *sarikopitakia*, reminiscent of Ottoman turbans, are filled with mixed herbs and wild fennel.

The Cretan hand pies known as *kalitsounia* are sometimes made with carob flour, giving the pastry an unusual flavor and recalling a mainstay of the Greek diet in former times.

CAROB, THE TREE THAT SURVIVED WORLD WAR II

The carob tree is a symbol of resilience. Although native to Syria, it thrives naturally in many countries around the Mediterranean. The tree survives in arid climates thanks to its fire resistance and deep roots, making it an excellent ally in the fight against climate change.

This sturdy, indomitable tree is a metaphor for the Greek people, who relied on it during the toughest times of World War II. Rich in sugar and fiber, carob pods were a survival food in rural Greece during the conflict.

Even before the war, Greek cooks knew how to make the most of the carob tree’s fruit. Farmers traditionally collected the pods in large baskets, first stripping the trees and dropping the pods onto cloths placed around the trunks.

From carob syrup to carob flour, the plant’s uses are numerous. The syrup, a traditional sweetener, is made by boiling the pods. The flour, rich in fiber and antioxidants, is used as an alternative to cocoa or wheat flour in breads, cookies and cakes.

Today, Greek food manufacturers use carob in pasta, spreads, coffee and energy bars. These diverse products make the most of the nutrition and flavor contained in this ancient, sustainably grown crop.

Many contemporary restaurants have also begun to use carob in their creations, elevating this humble ingredient to gourmet status. From its early importance as a unit of measurement to its critical role as nourishment when the Greek people needed it most, carob provides yet more evidence that the Mediterranean has everything we need to sustain us if we know where to look.



QUOTES

“Greeks appreciate bitter flavors, which are often present in this type of phylla. Stinging nettles, often disdained in other parts of the world, are welcomed in the Greek kitchen, where they are blanched to remove the sting, then braised in olive oil to make them sweet and tasty. ”

“Spanakopita has traveled the world, a Greek culinary ambassador. As with pizza, travel has transformed it, but region-specific versions of this iconic pie still persist in Greece. ”

“The carob tree is a symbol of resilience. Although native to Syria, it thrives naturally in many countries around the Mediterranean. The tree survives in arid climates thanks to its fire resistance and deep roots, making it an excellent ally in the fight against climate change. ”



These recipes were demonstrated at the cooking workshop

THE EASTERN MEDITERRANEAN PLANT-FORWARD KITCHEN: REGIONAL CROSSCURRENTS OF HERITAGE, CREATIVITY AND INVENTION

Moderator: **Martín Federico Alba**, Director of the University Degree in Gastronomic Management, Barcelona Culinary Hub; Barcelona, Spain.

Presenter: **Aglaia Kremezi**, Journalist and Author of Several US Published Books on Greek and Mediterranean Cooking, among them *The Foods of the Greek Islands*; Kea, Cyclades, Greece.

Manolis Papoutsakis, Chef & Co-Owner, Haroupi, Ten Tables and Pharaoh Restaurant; Thessaloniki / Athens, Greece.

SAVORY CHEESE PIE



16 servings

INGREDIENTS

DOUGH

- 200 g carob flour
- 1000 g all-purpose flour
- 80 ml extra-virgin olive oil (EVOO)
- 50 ml raki
- 30 ml lemon juice
- 1 tablespoon salt

FILLING

- 300 g feta cheese
- 300 g fresh Manchego cheese
- 200 g fresh white cheese (similar to ricotta)
- 50 g fresh mint (chopped)

INSTRUCTIONS

1. To prepare the dough: in a bowl, combine all the dough ingredients and add enough water to achieve a firm dough.
2. Knead well and let the dough rest for 20 minutes, covered with a damp kitchen towel.
3. In another bowl, prepare the filling: crumble all the cheeses and mix with the chopped mint.
4. Roll out thin sheets of the dough using a pasta machine.
5. Place small portions of the cheese filling (50-70 g) on the dough, leaving space between them.
6. Cover with another sheet of dough. Press around the filling to seal and cut each pie with a pasta cutter.
7. Fry the pies in olive oil at a low temperature until golden brown.
8. Serve hot. Store in a tightly closed container in the refrigerator if not serving immediately, labeled with the date and name.

GREENS PIE



16 servings

INGREDIENTS

DOUGH

- 1000 g all-purpose flour
- 50 ml extra-virgin olive oil
- 50 ml raki
- 30 ml lemon juice
- 1 tablespoon salt

FILLING

- 1000 g spinach
- 300 g chard
- 200 g spring onion
- 100 g shallot
- 50 g dill
- 50 g mint
- 50 g chervil
- 50 g wild green fennel
- 1/2 tablespoon salt
- 50 ml extra-virgin olive oil
- 10 g black pepper
- 5 g cumin

INSTRUCTIONS

1. To prepare the dough: in a bowl, combine all the dough ingredients and add enough water to achieve a firm dough.
2. Knead well and let the dough rest for 20 minutes, covered with a damp kitchen towel.
3. For the filling: finely chop all the greens and herbs. Transfer to a bowl.
4. Add salt, mix well, and let rest for 5 minutes.
5. Squeeze the mixture to remove as much liquid as possible.
6. Add the olive oil, pepper, and cumin. Mix well.
7. Roll out thin sheets of dough using a pasta machine.
8. Place small portions of the greens filling (50-70 g) on the dough, leaving space between them.
9. Cover with another sheet of dough. Press around the filling to seal and cut each pie with a pasta cutter.
10. Fry the pies in olive oil at a low temperature until golden brown.
11. Serve hot. Store in a tightly closed container in the refrigerator if not serving immediately, labeled with the date and name.

PUMPKIN PIE



16 servings

INGREDIENTS

DOUGH

- 700 g all-purpose flour
- 300 g whole-wheat flour
- 50 ml extra-virgin olive oil
- 50 ml raki
- 30 ml lemon juice
- 1 tablespoon salt

FILLING

- 1000 g pumpkin
- 50 g sage, chopped
- 1/2 tablespoon salt
- 50 ml extra-virgin olive oil
- 300 g ground walnuts

INSTRUCTIONS

1. To prepare the dough: in a bowl, mix all the dough ingredients and add enough water to achieve a firm dough.
2. Knead well and let the dough rest for 20 minutes, covered with a damp kitchen towel.
3. For the filling: peel the pumpkin, remove the seeds, and cut into 1 cm-thick pieces. Transfer to a large bowl.
4. Add the with sage, salt, and olive oil.
5. Roast at 180°C for 20 minutes until soft and browned.
6. Mash the roasted pumpkin and mix with the walnuts.
7. Roll out thin sheets of dough using a pasta machine.
8. Place small portions of the pumpkin filling (50-70 g) on the dough, leaving space between them.
9. Cover with another sheet of dough. Press around the filling to seal and cut each pie with a pasta cutter.
10. Fry the pies in olive oil at low temperature until golden brown.
11. Serve hot.
12. Store in a tightly closed container in the refrigerator if not serving immediately, labeled with the date and name.



Messinia: Where roots fuel sustainable growth



In Messinia, ancient traditions, sustainability and innovative vision converge. The Captain Vassilis and Carmen Constantakopoulos Foundation, based in the region, supports local initiatives that share this common vision, where sustainable agriculture, social cohesion, environmental stewardship, and cultural heritage don't just preserve the past - they cultivate tomorrow's possibilities.

**Messinia grows more than olives and grapes.
It cultivates ideas, values, and a better future for all.**

Discover more at www.cvf.gr

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CONSTANTAKOPOULOS
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07

Embracing Technology for a Greener Future

This article has been written with contributions from the speakers of the panel **Plant-Forward Menus and the Business of Restaurants: Insights and Case Studies from the Frontlines of Innovation** – Moderator/Presenter: **Chiara Gai**, PhD in Social Communication and Collaborator, Barcelona Culinary Hub; Barcelona, Spain. **Adriana Carcelén**, Chef, Rasoterra Restaurant; Barcelona, Spain. **Miguel Pe**, Head of Product Development and R&D, Grup Ametller Origen; Barcelona, Spain.

EMBRACING TECHNOLOGY FOR A GREENER FUTURE

The numbers speak for themselves. The 2012 Guide to Vegetarian Restaurants in Barcelona included more than 60 establishments. Today, there are more than 600, making Catalonia one of the most vegetarian-friendly regions in the world.

Restaurants and their patrons deserve much of the credit for this development, but regional institutions have contributed as well. Catalonia obliges primary schools to offer plant-based foods, a requirement that will soon extend to students at every grade level.

Barcelona’s many acclaimed culinary schools are beginning to offer training in plant-forward cooking. The Barcelona Culinary Hub (BCH) offers a master’s degree in vegetarian and plant-based foods, a credential that would have been unimaginable a few years ago.

What was missing was a way to gather data to quantify where Catalonia and its restaurants are in this plant-forward transition.

Hence the “sustainable competitiveness barometer,” an attempt by BCH to measure the extent and pace of the transition in Barcelona.

But how to measure sustainability? The barometer tracks not only the growing prominence of plant-based menus, but also existing labor and transportation practices. It provides digital tools to improve these measurements, identifying what restaurateurs already know and do, as well as areas ripe for change.

Call it a “twin transition,” a movement toward greener operations with digital support. The goal is to provide a clearer picture of the regional foodservice ecosystem and to identify opportunities for greener choices—the key to a sustainable and competitive future for the industry.



RASOTERRA: MAKING HAUTE CUISINE GREEN



Barcelona was a different city in 2013. El Bulli had put Spanish haute cuisine on the map, but the restaurant had closed two years prior. Operating an all-vegetarian restaurant was still an uncommon path for a chef, let alone an haute cuisine chef.

Xavier Pellicer, today among the best vegetarian chefs in the world, was just beginning to experiment with organic cuisine, and his namesake restaurant was far in the future.

In that climate, fueled by a fresh vision, Rasoterra opened its doors. This restaurant, in the heart of Barcelona, dared to declare that a plant-forward restaurant can be a gastronomic temple, that vegetables are as worthy of a chef’s attention as animal protein. Today, 12 years later, the restaurant is still leading the charge and proudly proclaiming its principles: “On our menu you will not find burgers, vegetable chorizo or other imitations of animal proteins, but a window to the vegetable biodiversity that surrounds us, cooked with love and passion.”

At Rasoterra, the mission is as important as the bottom line, and success is not just about profit. Success is when your small restaurant in a nondescript alley is visited by activist Angela Davis, or when an owner of that same small restaurant becomes president of Slow Food Spain. Success is seeing your establishment recommended in the Repsol Guide and the Green Guide and awarded a Biosphere certification.

Rasoterra follows the maxim of Douglas McMaster, owner of Silo in London, possibly the first restaurant without a garbage can. According to McMaster, “Waste is a lack of imagination.” With ingenuity, a restaurant can find creative and efficient ways to minimize waste and persuade customers to appreciate these efforts. Rasoterra’s culinary team conserves foods to extend their season. Less attractive parts are used for sauces and broths. Discarding is easy; reimagining is the challenge. At Rasoterra, even coffee grounds are repurposed for crumble.

Prioritizing local products boosts the local economy and preserves the environment. It also likely means fresher flavors, lower costs and improved traceability, with less dependence on imports. The restaurant relies on small local farmers and foragers to source little-known or neglected foods like Pyrenean apples, white aubergines and calçot blossoms.

At Rasoterra, the team has redefined restaurant success—as in, knowing that your way of cooking is saving significant water. (It’s estimated that eating a vegan diet saves 4,000 liters a day.) Or not supporting animal agriculture, so you’re not potentially enabling animal abuse. Success, in this restaurant’s lexicon, means being hyper-aware that actions have consequences, and that you must take responsibility for them. In the words of Marie Curie, “We cannot hope to build a better world without improving ourselves.”

AMETLLER, THE SUPERMARKET THAT MADE SUSTAINABILITY MAINSTREAM

In the world of the discerning food enthusiast, few conversations are more entertaining, or more revealing, than discussions about where to shop. Supermarkets have identities, with promoters and detractors, but few grocery chains have managed to craft as clear a brand identity as Barcelona's Ametller. From its interior design to its product mix, the chain communicates that it cares about sustainability and environmentally friendly food.

Ametller was among the first supermarket chains to make a commitment to plant-based foods and a more sustainable and local model. And that bet has paid off: The chain today counts 1.2 million customers, owns 10 restaurants and operates 138 stores (52 of them in Barcelona). Ninety-three percent of its product comes from Spanish suppliers, and the company farms 1,800 hectares of its own. We can learn a lot from this sustainable giant.

One Ametller strategy is to control more of the supply chain by ramping up its own production, thereby reducing the environmental impact. To this end, the company collaborates with technology centers and universities to find more productive seeds. Ametller also works with suppliers to transition their products to more plant-based versions. One such effort, known as the hamburger project, involved transforming a burger that was equal parts meat and vegetables into a 100 percent vegetable burger.

In the fields, installing drip irrigation has helped reduce the water footprint of crops. Through workshops, farmers learn how to turn a wheat surplus or a blemished peach harvest into bread, jam or pie. Shoppers are encouraged to seek out imperfect fruits and vegetables. Malformed carrots or sun-scalded fruit can still deliver great flavor and nutrition at an advantageous price.

Even blemished produce has dietary value, and advocating for its consumption will improve public health. That is why hummus, the chickpea darling, is now available at Ametller in flavors such as pumpkin, carrot and basil. For shoppers seeking quick yet healthy snacks and meals, this progressive chain provides a wealth of options.

Like every other merchant, Ametller seeks to make a profit. But it does so by showcasing what's sustainable and wholesome, thereby enhancing the health of its customers and the planet.



QUOTES

“ Call it a ‘twin transition’—a movement toward greener operations with digital support. ”

“ We need better tools to measure where restaurants stand in the shift to plant-forward models. ”

“ Sustainability is not just about food—it’s also about labor, transport, and knowledge-sharing. ”

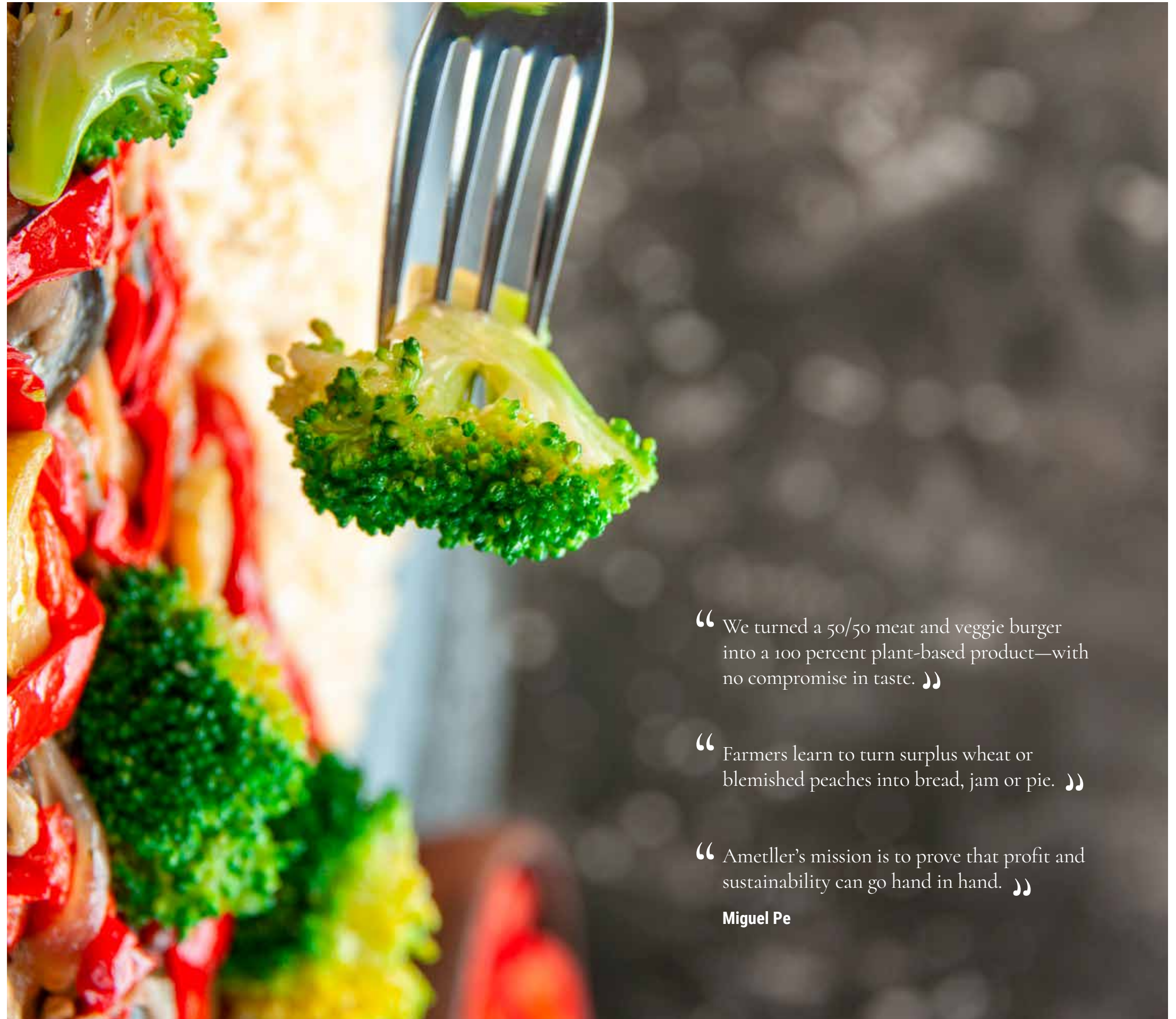
Chiara Gai

“ You won’t find veggie burgers or plant-based chorizo on our menu—only a window to local vegetable biodiversity. ”

“ At Rasoterra, waste is seen as a lack of imagination. Even coffee grounds become crumble. ”

“ Success is knowing that your way of cooking saves water, avoids animal abuse and supports local farmers. ”

Adriana Carcelén



“ We turned a 50/50 meat and veggie burger into a 100 percent plant-based product—with no compromise in taste. ”

“ Farmers learn to turn surplus wheat or blemished peaches into bread, jam or pie. ”

“ Ametller’s mission is to prove that profit and sustainability can go hand in hand. ”

Miguel Pe

These recipes were demonstrated at the cooking workshop

PLANT-FORWARD AND ZERO-WASTE MENUS: THE FUTURE OF FOODSERVICE

Moderator: **Martín Federico Alba**, Director of the University Degree in Gastronomic Management, Barcelona Culinary Hub; Barcelona, Spain.

Presenter: **Adriana Carcelén**,
Chef, Rasoterra Restaurant; Barcelona, Spain.

POTATO, PEPPER, OLIVE

The following recipes are preparations that form part of the main dish, “Potato, Pepper, Olive.” At the end of the process, as indicated in the “Final preparation,” the four different preparations must be combined to create the final dish prepared in the workshop.



POTATO, PEPPER, OLIVE

4 servings

1. PEPPER CRACKER

INGREDIENTS

- 1 large red pepper
- 120 g oat flour
- 30 g ground flax seeds
- 3 g salt
- 30 g olive oil
- 1/4 cup water

INSTRUCTIONS

1. Preheat oven to 200°C.
2. Place red pepper on a tray and roast for 20-25 minutes, turning halfway, until skin is charred and pulp is soft.
3. Once roasted, place in a covered container for 10 minutes to cool and peel easily.
4. Peel pepper, remove seeds, and cut into small pieces.
5. In a bowl, mix oat flour, ground flax seeds, and salt.
6. Add roasted and crushed red pepper.
7. Add olive oil and water little by little until you get a malleable but not sticky dough. Adjust water as needed.
8. Place dough between two sheets of baking paper and roll out until about 2-3 mm thick.
9. Remove top sheet of paper and cut dough into squares or rectangles with a knife or pizza cutter.
10. Place crackers on a baking sheet.
11. Dehydrate at 70°C until crispy.
12. Let cool completely.

2. POTATOES IMPREGNATED IN PICKLED ONION LIQUID

INGREDIENTS

- 500 g potatoes cut into small cubes
- 200 ml pickled onion liquid
- Salt and pepper to taste
- Extra-virgin olive oil

INSTRUCTIONS

1. Steam potatoes and cool quickly to avoid overcooking.
2. Prick them so the liquid soaks in better.
3. Place cooked potatoes in a vacuum bag with the pickled onion liquid.
4. Vacuum seal the bag. This process will allow the pickling liquid to penetrate the potatoes evenly, giving them an intense flavor.
5. Let marinate for at least one day.
6. Stir potatoes in olive oil until golden brown.
7. Finish the dish with salt and pepper.

POTATO, PEPPER, OLIVE

3. MAYONNAISE WITH OLIVE LIQUID

INGREDIENTS

- 100 ml Kalamata olive liquid
- 1 teaspoon lemon juice
- 1 teaspoon Dijon mustard
- 1/2 teaspoon salt
- 1/2 garlic clove
- 150 ml sunflower oil
- Soy milk (around 250 ml)

INSTRUCTIONS

1. In a blender or food processor, add milk, olive liquid, lemon juice, Dijon, salt, and garlic.
2. With a hand blender or processor, start blending the ingredients while adding the oil little by little in a thin stream to form the emulsion.
3. If the mixture doesn't emulsify well, add more soy milk.

4. PEPPER JUICE/CARMEL

INSTRUCTIONS

Reduce the remaining pepper juice released by the vegetable in the first elaboration until thicken.

5. FINAL PREPARATION

INSTRUCTIONS

Plate the dish by bringing together the pepper crackers, the potatoes, and the mayonnaise, and coating the salad with the pepper juice.

PEPPER-DRIED BEETROOT, LEAF PESTO, AND LEAF SAUTÉ

All the recipes below are preparations that form part of the main dish “Pepper-Dried Beetroot, Leaf Pesto, and Leaf Sauté.” At the end of the process, as indicated in the “Final Preparation,” the four different preparations must be combined to create the final dish prepared in the workshop.

4 servings



PEPPER-DRIED BEETROOT, LEAF PESTO, AND LEAF SAUTÉ

1. ROASTED AND PEPPER-DRIED BEETROOT

INGREDIENTS

- 4 medium beets, about 500 g total
- 2 tablespoons extra-virgin olive oil
- 1 teaspoon sea salt
- Freshly ground black pepper, to taste
- 1 sprig fresh thyme or rosemary, optional

INSTRUCTIONS

1. Wash beets well, but don't peel them. Remove only the roots and stem ends.
2. Preheat oven to 160°C.
3. Place beets on a baking sheet and drizzle with olive oil. Make sure they are well coated with oil to help the sugars concentrate while roasting. Add thyme if desired
4. Cover the baking sheet with aluminum foil or an oven lid to retain moisture, and bake for 2 to 2.5 hours, depending on the size of the beets.
5. Remove the aluminum foil and bake for an additional 15-20 minutes at 180°C to caramelize the skin a bit. Peel the beets.
6. Dehydrator: lightly coat the whole, peeled beets with a mixture of 3 parts salt and 1 part pepper.
7. Place them on dehydrator trays and dehydrate at 60°C for 12-16 hours. Check until desired texture is achieved.

2. LACTO-FERMENTED BEETROOT

INGREDIENTS

- 500 g raw beetroot (about 2 medium beets)
- 1 liter filtered water
- 20 g unrefined sea salt, 2% of water weight
- Pink pepper, optional

INSTRUCTIONS

1. Wash beets well to remove any dirt.
2. Peel beets and cut into thin slices.
3. In a bowl, dissolve salt in filtered water to form a brine, 2% salt to water weight.
4. Make sure salt is completely dissolved before using.
5. Place sliced beets in a glass jar, ensuring they are tightly packed but not crushed. Add pink pepper if desired.
6. Pour brine over the beets, covering them completely with liquid. It is important that the beets are completely submerged to prevent mold formation. You can use a fermentation weight or a large cabbage leaf to keep them submerged.
7. Close the jar and place in a cool, dark place (at room temperature, between 18°C and 22°C) for 7 to 10 days.
8. During fermentation, bubbles will start to form. If using a jar with a water-sealed lid, the gas can escape without problems. If using a normal airtight jar, open the lid slightly each day to release accumulated gases.
9. After a week, start tasting the beets. Once the flavor is acidic and complex enough, move the jar to the refrigerator to stop fermentation. The process can last from 7 to 14 days depending on room temperature and desired fermentation level.

PEPPER-DRIED BEETROOT, LEAF PESTO, AND LEAF SAUTÉ

3. BEET GREENS PESTO WITH HAZELNUT

INGREDIENTS

- 100 g beet greens
- 30 g hazelnuts
- 1 small garlic clove
- 60 ml extra virgin olive oil
- Lemon juice (to taste)
- Salt and black pepper, to taste

INSTRUCTIONS

1. Wash the beet greens thoroughly and remove the thick stems. Drain them well.
2. Toast the nuts in the oven.
3. Make the pesto: in a food processor, add the beet greens, garlic, and toasted nuts.
4. Blend the ingredients while slowly pouring in the olive oil in a thin stream until you obtain a homogeneous and creamy texture.
5. Add the lemon juice and adjust the salt and pepper to taste.

4. SAUTÉED GREENS

INGREDIENTS

- Beetroot greens remaining from previous preparation.
- 2 tablespoons extra-virgin olive oil
- 2 garlic cloves, sliced
- Salt and pepper, to taste

INSTRUCTIONS

1. Wash the greens and separate the thin stems from the leaves. If the stems are tender, cut them into small pieces. Large leaves can be cut into strips.
2. In a large skillet, heat the olive oil over medium heat.
3. Add the sliced garlic and sauté until golden brown and fragrant, being careful not to burn it.
4. Add the stems first and sauté for 2-3 minutes until they begin to soften.
5. Add the beet leaves and sauté for another 3-4 minutes, until the leaves are tender.

FINAL ASSEMBLY

INSTRUCTIONS

Plate all the preparations.

ROASTED SWEET POTATO, ITS MOLASSES, ALMOND CURD AND CRISPY SKIN

All the recipes below are preparations that form part of the main dish “Pepper-Dried Beetroot, Leaf Pesto, and Leaf Sauté.” At the end of the process, as indicated in the “Final Preparation,” the four different preparations must be combined to create the final dish prepared in the workshop.

4 servings



ROASTED SWEET POTATO, ITS MOLASSES, ALMOND CURD AND CRISPY SKIN

1. SWEET POTATO CREAM

INGREDIENTS

- 4 large sweet potatoes
- Almond milk (one cup)
- Olive oil
- Salt

INSTRUCTIONS

1. Preheat the oven to 200°C.
2. Wash the sweet potatoes.
3. Place them on a baking tray with a base layer of salt.
4. Roast for 30–40 minutes or until tender and caramelized around the edges. Set aside.
5. Scoop out the flesh and reserve the skin.
6. Blend the roasted sweet potato flesh with a bit of salt, extra virgin olive oil, and almond milk until smooth.

2. SWEET POTATO MOLASSES

INSTRUCTIONS

1. Place the sweet potatoes puree in a cloth bag and press to extract the liquid.
2. Reduce the liquid until it reaches a syrupy consistency. This is your sweet potato molasses.

3. ALMOND CURD

INGREDIENTS

- 200 g raw almonds (soaked for 8 hours or overnight)
- 500 ml water
- Juice of 1–2 lemons (adjust to desired acidity)
- Salt

INSTRUCTIONS

1. Drain the soaked almonds, reserve the water and blend the almonds together with the water until you get a smooth almond milk.
2. Strain the almond milk through a nut milk bag to remove solids. Reserve the liquid.
3. Heat the milk over medium heat to 70–80°C, avoiding boiling.
4. Gradually add lemon juice while gently stirring. The milk will curdle and separate.
5. Let it sit off the heat for 10 minutes.
6. Pour the mixture into a cheesecloth or fine towel and let it drain for 20–30 minutes.
7. Add a pinch of salt and let it rest until the next day.

ROASTED SWEET POTATO, ITS MOLASSES, ALMOND CURD AND CRISPY SKIN

4. CRUMBLE

INGREDIENTS

- 1 cup almond pulp (from almond milk preparation)
- 200 g whole wheat flour
- 2 tablespoons brown sugar
- 2 tablespoons olive oil
- Pinch of salt

INSTRUCTIONS

1. Preheat oven to 180°C.
2. In a bowl, mix almond pulp, flour, sugar, and salt. Add olive oil and mix until crumbly.
3. Spread on a baking tray and bake for 15–20 minutes, stirring occasionally, until golden and crisp.
4. Let it cool before using as a topping.

5. CRISPY SKIN

INSTRUCTIONS

1. Make a syrup (TPT: same amount sugar and water) and coat the reserved sweet potato skins.
2. Roast for 45 minutes, then dehydrate at 160°C until crispy.
3. Fill the skins with sweet potato cream and a bit of crumble for texture.
4. Finish with a drizzle of sweet potato molasses.

FINAL PREPARATION

INSTRUCTIONS

Fill the skin of the sweet potato with the sweet potato cream, adding a little crumble in the middle to create texture. Finish it with a little molasses.



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08

Can the Mediterranean Diet Go Global?

This article has been written with contributions from the speakers of the panel **Connecting the Principles of the Mediterranean Diet with the Healthy Food Cultures of Asia** - Moderator:

Greg Drescher, Senior Advisor for Strategic Initiatives, The Culinary Institute of America; Napa, USA - Presenters:

Cuilin Zhang, Chair Professor and Director, Global Center for Asian Women's Health (GloW) & Department of Obstetrics & Gynecology, Yong Loo Lin School of Medicine, National University of Singapore. Adjunct Professor of Nutrition, Harvard T.H. Chan School of Public Health; Singapore. **Ramon Estruch**, Senior Consultant, Internal Medicine Department, Hospital Clinic; Professor of Medicine, University of Barcelona; Chair Scientific Advisory Council, Torribera Mediterranean Center; Barcelona, Spain.

CAN THE MEDITERRANEAN DIET GO GLOBAL?

From a health perspective, the Mediterranean way of eating is widely regarded as one of the best dietary patterns in the world. But for those who live far from the Mediterranean, with different foods and social customs, how easy is it to implement? A knowledgeable observer can find parallels between the foodways of the Spanish coast and western China, despite the profound differences. Clearly populations around the world have much to learn from each other in achieving the goal of better health through food.

For insights on this issue, we sought the perspective of two academic experts. Cuilin Zhang is one of Asia's foremost authorities on women's health and nutrition. She is Professor and Director of the Global Center for Asian Women's Health and the Department of Obstetrics and Gynecology at the Yong Loo Lin Medical School of the National University of Singapore. Ramon Estruch is Senior Consultant, Department of Internal Medicine, Hospital Clinic and Professor of Medicine, University of Barcelona. He is widely recognized as a leading expert in the Mediterranean Diet.

How can the Mediterranean diet improve women's health in Asia and other regions far from the Mediterranean?

Cuilin Zhang: Mediterranean diet principles can be adapted to many different cultures, including Asian cultures. Research confirms that this way of eating reduces the risk of type 2 diabetes and some cancers, such as breast cancer. It promotes longevity and it has anti-inflammatory and antioxidant properties.

In addition, the diet plays an essential role in the prevention of cardiovascular disease, the leading cause of death in women worldwide. So adapting it to other cultural contexts would mean an improvement in women's health globally.

How does diet affect women's reproductive health?

Cuilin Zhang: In a recent systematic review published in the American Journal of Obstetrics and Gynecology, we analyzed thirty-two studies on the relationship between the Mediterranean diet and reproductive health. Nine were randomized controlled trials, twenty-two were prospective cohort studies, and one was a case-control study. Here's what we learned:



Fertility: Studies show that increased adherence to the Mediterranean diet improves embryonic development, increases clinical pregnancy and delivery rates, and reduces the risk of infertility.

- **Pregnancy:** The Mediterranean diet is associated with significant reductions in preterm birth, gestational diabetes and gestational hypertension. These benefits are more pronounced when the diet is started before pregnancy or in its early stages.
- **Other reproductive outcomes:** Although data are more limited, the Mediterranean diet may also help alleviate some menopausal symptoms.
- **Randomized controlled trials** at a fertility clinic in Italy showed an improvement in embryo development in women who followed a Mediterranean diet. Other studies suggest a positive association between high adherence to the Mediterranean diet and a lower risk of infertility. In addition, we have seen that greater adherence to the Mediterranean diet radically reduces premature births and gestational diabetes, one of the most common and serious complications of pregnancy.

Although we have relatively limited data suggesting that the Mediterranean diet can increase fertility in women, especially in non-Caucasian populations, we can affirm that it benefits women's health, from reproductive age and beyond.

How do the Mediterranean diet and the Asian food pyramids compare?

Ramon Estruch: When comparing the Mediterranean diet with the food pyramids of China, Japan and Singapore, we find many similarities, including an emphasis on whole grains, fish, vegetables and fruits. One important difference is the Mediterranean use of extra virgin olive oil, which is not common in these Asian cultures. Another distinctive element of the Mediterranean diet is wine, which should be consumed in moderation and always with meals.

In the Chinese diet, oil and salt are used more sparingly, but many foods, such as vegetables, grains and fish, overlap with the Mediterranean pattern. The Japanese diet also emphasizes whole grains, vegetables, fish and meat, milk and fruit, making it broadly similar in structure and nutritional focus.

The Asian diet is rich in polyphenols and soy, both of which have recognized health benefits.

We still lack sufficient comparative studies to draw firm conclusions about the relative healthfulness of Mediterranean and Asian diets. Analyses conducted with diets such as DASH, MIND and Planetary Health Plate have shown that the Mediterranean diet shares many core components with these approaches. We conducted a study comparing these four dietary patterns



and found that adherence to any of them provides remarkable protection against both hemorrhagic and ischemic stroke. While each has its own strengths, they share fundamental principles that promote health.

How does one implement Mediterranean diet principles in other cultures, especially in Asia?

Cuilin Zhang: It requires a collaborative effort. In Singapore, for example, we have established the Global Center for Women's Health to promote research on nutrition and health across the life cycle and across generations.

We are also launching a Master of Science in Nutrition and Lifestyle Sciences, one of the first in Asia, to foster international collaboration and address women's health challenges. Finally, we are developing a dietary approach that combines Mediterranean principles with Asian ingredients, with more than 75 percent of the food being local. This hybrid approach could be an innovative tool to improve women's health in Asia.

Ramon Estruch: We believe that the Mediterranean diet can be enriched by incorporating knowledge from other cultures. Olive oil should remain a central component, complemented by fruits, vegetables, legumes, nuts and whole grains. Preference should be given to fresh, local and polyphenol-rich foods. Regarding protein, moderate consumption of dairy products (cheese and yogurt), fish and eggs is recommended, while meat should be consumed sparingly. As for beverages, water and red wine, consumed with meals and in moderation, are the main staples of the Mediterranean dietary pattern.

What would be the recommendation for caffeine and green tea consumption?

Ramon Estruch: Coffee is rich in polyphenols and can offer health benefits when consumed in moderation. Several studies suggest its effects follow a bell-shaped curve: moderate intake is associated with reduced cardiovascular mortality, while excessive consumption may be harmful. In the context of the Mediterranean diet, however, findings on coffee's health impact are inconsistent, likely due to variations in coffee quality depending on its origin. Choosing high-quality coffee is essential. In conclusion, coffee can be a healthy component of the diet when consumed in moderation, with particular attention paid to its quality and source.

Cuilin Zhang: In the case of a pregnant woman, the effects of coffee consumption should be considered not only for the mother, but also for the developing fetus. In both Asian and American populations, it is recommended to limit coffee intake during pregnancy, as high consumption may be associated with low birth weight and other risks.

Dr. Zhang mentions an approach that merges Mediterranean diet principles with Asian cuisine, with up to 80 percent of the ingredients being traditional Asian. What would the other 20 percent be?

Cuilin Zhang: We have discussed this question extensively in our committee. One ingredient would be olive oil, although not exclusively due to accessibility issues. We recommend 50 percent olive oil combined with local oils such as sunflower oil, which is common in China and Singapore. In addition, we incorporate dairy foods such as cheese and yogurt. This approach allows us to preserve the benefits of the Mediterranean diet without losing the local essence.

In promoting aspects of the Mediterranean or Blue Zone diets in countries such as China or India, how do we avoid romanticizing these largely Western traditions?

Cuilin Zhang: It is essential to adapt dietary recommendations to the local context, taking into account factors such as accessibility and affordability. In Singapore, while we advocate the principles of the Mediterranean diet, we have to balance them with local customs. Many meals served in community centers, especially for vulnerable populations, are high in carbohydrates and unhealthy fats. We work with local chefs and vendors to develop recipes that combine taste and health, implementing the principles of the Mediterranean diet without losing sight of cultural and economic realities.

Ramon Estruch: I agree that the goal is not to impose the Mediterranean diet as a universal model, but rather to promote its core principles. In the case of the Blue Zones, it is important to consider not only dietary patterns, but also genetic and epigenetic factors that influence longevity. While the Mediterranean diet shares many features with other healthy dietary patterns, such as the Okinawa diet, it also includes unique elements such as olive oil and wine. I believe that future research should focus on how to enhance these diets by integrating complementary components, like tea or coffee, which further strengthen their protective effects. Ultimately, the aim is to develop dietary models that not only support healthy aging but are also sustainable and adaptable across cultures and regions.

Given limited resources, how should the scientific and educational communities approach the challenge of adapting recommended dietary patterns for different contexts?

Ramon Estruch: The first step should be to halt the decline of the Mediterranean diet, which is being lost even in the Mediterranean countries. We need to preserve our culinary heritage by teaching about it in schools and universities. Beyond the Mediterranean, we need to work on improving traditional diets, such as those of Mexico or Latin America, by moving toward a more vegetable-based model.

When you talk to colleagues from different parts of Asia, do you find that the conversation around nutrition and dietary patterns is similar to the discussion in the Western world?

Cuilin Zhang: In general, nutrition experts in Asia follow the main findings of international researchers. They are actively working to adapt healthy practices from elsewhere, while recognizing the unique strengths of their own traditional diets. In China and Singapore, for example, studies comparing the traditional Chinese diet to the Mediterranean diet are demonstrating an open-minded and rigorous approach to identifying healthy eating patterns.

Final thoughts on how we can make the Mediterranean diet relevant to other cultures and younger generations?

Ramon Estruch: The focus should be on adapting the principles to other healthy culinary traditions. In Spain, for example, educational programs in schools target children and adolescents, but also influence the eating habits of their families. These initiatives aim to preserve the Mediterranean tradition, especially among younger generations who may perceive it as outdated or unfashionable. The key is to emphasize that the Mediterranean diet is not only nutritionally beneficial, but also part of a rich cultural heritage, one that is both valuable and worth preserving.

Cuilin Zhang: We need to supplement traditional education with practical experiences. People need to taste dishes adapted to local ingredients to understand that the Mediterranean diet is not just healthy, it's delicious. This approach allows for more immersive and effective learning.



QUOTES

“ Mediterranean diet principles can be adapted to many different cultures, including Asian cultures. Research confirms that this way of eating reduces the risk of type 2 diabetes and some cancers, such as breast cancer. It promotes longevity and it has anti-inflammatory and antioxidant properties. ”

“ It is essential to adapt the Mediterranean Diet’s dietary recommendations to the local context, taking into account factors such as accessibility and affordability. ”

Cuilin Zhang

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Ramon Estruch



09

Toward a World Without Food Waste

This article has been written with contributions from the speakers of the panel **Towards Food Sovereignty: AI and Other Tools to Fight Food Waste** - Moderator: **Daniele Rossi**, Chef & Owner, Rasoterra Restaurant; Barcelona, Spain - Presenters: **Jordi Gascón**, PhD in Social Anthropology and Researcher at the Institute of Nutrition and Food Safety, University of Barcelona; Barcelona, Spain. **Marc Zornes**, CEO & Co-Founder, Winnow; London, UK. **Miguel Millera**, Corporate Chef EMEA, Iberostar; Palma de Mallorca, Spain. **Maria Nicolau**, Cook, Writer, Bestseller and Enthusiast; Vilanova de Sau, Spain.

TOWARD A WORLD WITHOUT FOOD WASTE

For most of human history, people have woken up in the morning with the goal of getting the most food possible, making it last as long as possible, and not throwing anything edible away. Every gram of food counted for sustenance. Food waste as we experience it today is a modern phenomenon.

Anthropologists generally agree that the great sedentary civilizations throughout history were founded on the cultivation of complex carbohydrates: yams, sweet potatoes, wheat, corn, barley, rice. These hardy crops—easy to grow, easy to cook, packed with essential nutrients—kept civilizations from starving and became cornerstones of diets around the world.

Consider bread, the baker’s ingenious transformation of complex carbohydrates. In bread-eating cultures, this fundamental foodstuff takes countless shapes and accepts innumerable flavors. Just think of the diversity of sandwiches on global menus. In many of the world’s kitchens, meals are a more or less elaborate attempt to embellish a complex carbohydrate with other ingredients—from vegetables to meat—and not the other way around.

A recipe for grilled burgers, chops or steaks would be surprising to find in an old cookbook. In times past, meat was too scarce and precious to consider a 200-gram portion for an individual. Instead, available meat would be stretched with other ingredients, such as rice and beans, so it could feed many more. The hamburger became popular after World War I, during the golden age of big hotels. Once memories of wartime scarcity faded and prosperity returned, people lost their scruples about throwing food away.

Today, food waste is rampant and environmentalists are urging change. Calls for a more plant-based world have produced meat alternatives like the veggie burger. For millennia, humans ate this way—relying on plant foods out of necessity and preparing them with the resourcefulness that emerges wherever people are hungry. Yet the plant-based movement raises new questions. Is a shift to veganism the best approach if we also value broader traditional diets? Or should we aim to eat greener, better and cheaper by mimicking our ancestors and cooking more in sync with the seasons and the natural landscape?

FOOD SOVEREIGNTY: MORE POWER TO THE PRODUCERS

Food sovereignty is a multi-faceted political movement with the advantage of a global organization behind it. La Via Campesina, founded in 1993, acts as a sort of umbrella for coalitions of small-scale farmers, fishers and landless peasants around the world who have little power to make change on their own. Food sovereignty is their collective goal.

The movement advocates for reshaping the prevailing food system, currently dominated by powerful agribusinesses that establish the conditions of production, set prices and determine the markets.

Let’s start the story at the end of the food chain. Not so long ago, when you went to the store for tomatoes, the seller chose them and put them in a bag for you. Now we shoppers fill the bags ourselves. The supermarket boosted its profit by offloading that labor to us, the customers. And now that we are choosing our own tomatoes, we are inclined to select the more attractive ones and reject the others. The supermarket won’t survive if its produce doesn’t sell, which is why all the tomatoes in the bin now look alike.

The technology applied in the field today is rarely used to improve the conditions of the farmers. Instead, it caters to the demand of the supermarket produce manager for carrots that are all the same. The upshot is a system that encourages discarding and wasting all those fruits and vegetables that don’t fit the aesthetic ideal.

This insistence on homogeneity yields tremendous food waste. Perfectly tasty produce is rejected for its size, color or shape. Ideally it would be diverted to a processor or other secondary market, but most of it is simply thrown away.

Supermarkets increasingly have the upper hand with suppliers. They may purchase only the farmer’s best fruits and decline to pay for a shipment they deem imperfect. They determine what they will pay and what they will charge.

Food waste in production and distribution is not due to a lack of technology, as many believe. The problem is that the technology favors uniformity over flavor. Reducing food waste would require allocating more power to the producer, the primary mission of the food sovereignty movement.



GETTING A GRIP ON FOOD WASTE

Approximately one-third of all food produced worldwide is never consumed, with an annual value estimated at more than \$1 trillion. Producing food consumes 70 percent of the world's water, and an estimated 10 percent of global greenhouse gas emissions are directly related to food waste.

These numbers inform us about the toll food production takes, but the food industry faces its own challenges, such as inflation, labor shortages and the impact of climate change.

How do we tackle food waste? Perhaps, ironically, with an assist from technology. Winnow, a Dubai-based software company, helps commercial kitchens gauge and, more importantly, prevent food waste.

According to Winnow's data, many companies waste between 5 and 15 percent of the food they purchase, literally throwing away their profits. In the hospitality industry alone, waste amounts to \$100 billion per year. Reducing this number would reduce costs and make these enterprises more profitable.

Recycling can help in this fight, but the priority should be to prevent waste in the first place. When unavoidable, food overages can be redistributed to people in need through local food banks or apps like Too Good to Go. Some food waste can be used to feed livestock, for example. Only after these options are exhausted should waste be incinerated or sent to a landfill.

Winnow's technology uses AI to monitor and measure food waste. A camera placed above the restaurant's dumpster monitors what goes in. A scale under the bin calculates the weight, and sophisticated AI software identifies the wasted food. Chefs receive reports that help them analyze and optimize their operations.

This technology is currently in use in more than 85 countries and 3,000 kitchens worldwide, saving approximately \$85 million a year in food costs. Furniture and home décor giant IKEA has implemented this technology in its 425 stores, saving \$37 million in food costs and reducing waste by 54 percent--the equivalent of 20 million meals saved.

With equipment as simple as a camera and powerful AI technology, food businesses rack up the wins: lower costs, higher profits, less waste, a more sustainable kitchen and the satisfaction of contributing to a greener future.



CASE STUDY: IBEROSTAR DECLARES WAR ON WASTE

Global resort chain Iberostar aims to be a leader in sustainable tourism, so it makes sense that the company would seek to reduce waste. Its "Wave of Change" initiative, a strategy with its own brand and identity, operates independently within the company and pursues sustainability at every level, from resort construction to room décor and menu creation.

Its main goals are to eliminate waste by 2025, to achieve carbon neutrality by 2030 and to support the so-called circular economy by repurposing or recycling materials.

You can't improve what you don't measure, a management axiom that spurred Iberostar to embrace technology to tackle waste.

Analyzing waste management required an investment in equipment and personnel. Today every Iberostar property has a 3R team (Reduce, Reuse, Recycle), a total of 250 employees dedicated to the conscientious separation of waste. Guest amenities such as gels, shaving cream, toothbrushes and toothpaste now have a second life.

Artificial intelligence has been essential to the process. Together, 44 Iberostar resorts have saved almost one million kilos of organic material, mainly food, a reduction of 12 percent. The average holiday hotel throws away 9 to 11 percent of the food it offers. In Iberostar resorts, this figure is now 3 to 5 percent, a measurement constantly monitored to identify new opportunities for reuse and reduction of purchases.

Winnow's technology is simple: a scale linked to software that identifies the type of waste. With this data, management can monitor what's not being eaten and refine the options on the dinner menu or the breakfast buffet.

The hotels use specialized staff to separate waste, both their own operational waste and that of their guests. Waste is classified by type (food, plastic, cardboard) and weighed regularly to detect patterns and possible problems. The goal is to minimize what goes to the landfill or the incinerator.

Daily work focuses on inventory control (overbuying), internal waste, cooking errors, overproduction and uneaten food on guest plates. This level of scrutiny provides valuable information on guest preferences, insights that lead to improved products and menus.

The introduction of dynamic menus adapted to the seasons and the digitalization of the menu-making process has optimized purchasing. The result is better quality food at a lower price and better-informed chefs with the tools to achieve waste-reduction objectives.





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Uniting Nations for a Better Food Future

This article has been written with contributions from the speakers of the panel **Life Climate Smart Chefs—Insights from a European Project to Engage Chefs in Advancing Low Emission, Nutritious and Affordable Diets** - Moderator: **Santi Mas de Xaxàs Faus**, Founder, Gastronomic+34. Co-Executive Director (for The Culinary Institute of America), Torribera Mediterranean Center; Barcelona, Spain - Presenters: **Graceanne LaCombe**, Project Manager, Barilla Foundation and ALMA, the School of Italian Culinary Arts; Colorno, Italy. **John Regeffalk**, Head of Culinary Innovation, BCC Innovation, Research Center of the Basque Culinary Center; San Sebastián, Spain. **Simone Walli** (live online), Culinary Art & Onboard F&B Service Concept Manager, Austrian Airlines; Vienna, Austria.

UNITING NATIONS FOR A BETTER FOOD FUTURE

Is it possible to influence the future of food without addressing the interdependence of nations? Through trade, immigration, travel and politics, we are all connected and affected by what others do. In the following conference summaries, you'll learn about three diverse efforts to link countries through gastronomy. Such programs help us inch closer to a sustainable global food system.



SHARED IDEAS FROM CLIMATE SMART CHEFS

On the outskirts of Parma, on the banks of the Po River, is an enchanting cooking school that is a chef's dream. The Ducal Palace of Colorno (former residence of Maria Luigia of Austria, second wife of Napoleon Bonaparte) is home to ALMA, the School of Italian Culinary Arts. This leading center for hospitality and culinary training is now celebrating its 20th anniversary. In this august setting, chefs are not only trained in knife skills, but also engaged in projects that will shape the future of gastronomy.

One such influential project is LIFE Climate Smart Chefs, an EU-funded program that aims to “empower chefs as actors in the fight against climate change.” The data underscore how important this effort is. Food production is responsible for an estimated 37 percent of global greenhouse gas emissions. Agriculture accounts for 70 percent of freshwater withdrawals, and at least one-third of global food production is never consumed.

LIFE Climate Smart Chefs wants to encourage change with concrete ideas. Among the efforts is a high-level course for 160 EU chefs, training them in the use of a digital tool that scores their recipes for sustainability. It's the first tool created in Europe to measure carbon and water emissions related to food production with scientific rigor.

The new LIFE Climate Smart Chefs Award recognizes chefs who use this tool. Chefs who have completed the training can apply for the “sustainable restaurant of the year” and “sustainable recipe of the year” awards. Non-profit organizations can also apply for an award recognizing their sustainability initiatives.

In addition, a new network of associations from the 27 EU countries is mobilizing to act together on climate change. Already, 1300 chefs are using the carbon-footprint tool to evaluate their recipes, engaging technology to help them cook more sustainably.

Most importantly, the project has participants in all 27 EU countries. As a consequence, participating chefs are not only influencing their fellow citizens but also borrowing ideas from neighboring countries to create more sustainable kitchens.

On the horizon: a recipe collection focused on food waste, celebrating dishes that meet parameters of sustainability and reuse. These recipes, representing all EU nations, will promote the exchange of ideas among all regions of the Union.



NEW COOKBOOK AIMS TO UNITE CULTURES

The Basque Culinary Center in San Sebastián, Spain, is a pioneer in culinary education and innovation. For years, the center has been exploring the notion of cuisine as an engine of social change. This vision gave rise to “Delicious,” a project funded by PRIMA (Partnership for Research and Innovation in the Mediterranean) to promote a return to the Mediterranean diet in the Mediterranean basin, particularly in response to the rise of unhealthy eating patterns and obesity among minors.

The initiative involved five Mediterranean countries (Spain, Italy, Portugal, Lebanon and Egypt) and focused on recovering traditional recipes. Basque chefs traveled to these countries, conducted interviews with families and employees in school cafeterias, analyzed the sensory profiles of regional dishes and selected 210 representative recipes. They also evaluated each recipe in terms of food waste, water use and energy consumption. Some of the recipes were reformulated with an eye to sustainability, healthfulness and taste. A forthcoming cookbook will collect this gastronomic research in a single volume, illustrating how the same fundamental ingredients can be transformed into different dishes depending on the region. This work aims to be a reference for chefs interested in the sustainability and cultural diversity of the Mediterranean diet.

Project participants also created several healthy snacks for children, designed in collaboration with them. Easy to prepare at home, these snacks offer a more nutritious alternative to the typical options in schools. Carrot cake, seaweed crackers, tahini cookies... these items and others were designed to be made at home and taken to school to replace less healthy choices. A chocolate bar supplemented with polyphenols was well received, and developers also created a snack for commercial production using cereals, nuts and olive pulp extract.

As the project revealed, these five countries share common ingredients but prepare them with different techniques. This co-creation approach not only engaged children and parents but also ensured that the resulting products were culturally appropriate and nutritionally sound.



SUSTAINABILITY IN THE SKY



In the aviation sector, Austrian Airlines has excelled in integrating sustainability into its catering services. The airline, which serves more than 120 destinations, has committed to achieving carbon neutrality by 2050, not only by making flights more efficient, but also by completely overhauling the way it manages in-flight menus.

Sustainability begins with planning. Every menu served on Austrian Airlines meets strict internal sustainability standards. These standards specify menu composition (appetizers, salads, soups, main courses and desserts) for the different classes and require the use of local and seasonal products. According to Austrian Airlines, this requirement not only reduces the airline’s carbon footprint, but also yields higher quality meals for passengers.

Sustainability standards include traceability regulations that track products from farm to fork. In addition, all coffee and chocolate products on board are certified as ethically and sustainably sourced. To ensure quality, Austrian Airlines’ specialized chefs regularly monitor the in-flight service.

The airline has begun experimenting with vegetarian-only menus on selected routes, such as flights to Washington, D.C., and Chicago on Boeing 787s. Depending on the response to this initiative, the airline plans to implement a pre-order system on all routes, with a vegetarian menu as the default. Travelers could order additional items in advance. This plan would not only reduce food waste but also encourage more sustainable eating.

The airline is also working with local suppliers to strengthen its commitment to sustainability. Its Japanese supplier sources vegetables, pork and fresh fish within 15 kilometers of Narita International Airport. This proximity ensures quality ingredients and minimizes environmental impact.

Austrian Airlines’ next steps include encouraging menu pre-selection on night flights and tailoring its offerings to passenger preferences. These initiatives not only reflect a commitment to the environment but also position the airline as a sustainability leader within the aviation industry.

QUOTES

“ LIFE Climate Smart Chefs is the first tool created in Europe to measure carbon and water emissions related to food production with scientific rigor. It aims to empower chefs as actors in the fight against climate change. ”

“ With 1300 chefs already using the carbon-footprint tool, we’re seeing real momentum toward more sustainable kitchens. ”

Graceanne LaCombe

“ The Delicious project shows how traditional Mediterranean recipes can be reimagined for sustainability, health and taste. ”

“ This cookbook will be a reference for chefs interested in the cultural diversity and environmental value of the Mediterranean diet. ”

“ We worked hand-in-hand with children and parents to design healthy snacks that are both nutritious and culturally relevant. ”

John Regefalk



“ Every menu served on Austrian Airlines must meet strict sustainability standards—composition, seasonality and traceability. ”

“ Our vegetarian-only menus on long-haul flights are a first step toward reducing food waste and promoting climate-friendly eating. ”

“ By sourcing ingredients close to our departure airports, we minimize environmental impact while ensuring top-quality meals. ”

Simone Walli

These recipes were demonstrated at the cooking workshop

LIFE CLIMATE SMART CHEFS: LOW EMISSION, NUTRITIOUS AND AFFORDABLE MENUS

Moderator: **Martín Federico Alba**,
Director of the University Degree in Gastronomic Management,
Barcelona Culinary Hub; Barcelona, Spain.

Presenter: **Carlo Maria Ricci**,
Chef Ambassador, ALMA International Culinary School;
Colorno, Italy

ORECCHIETTE, BROCCOLI, ALMOND, AND GARLIC

4 to 6 servings



INGREDIENTS

- 200 g durum wheat flour
- 90 g water
- 1 head of broccoli, with stalk and leaves
- 2 garlic cloves, divided use
- 50 g extra-virgin olive oil, divided
- 2 salted anchovies, desalted and deboned, divided use
- 15 g extra-virgin olive oil
- Salt, to taste
- 1 mild red chili

INSTRUCTIONS

1. In a bowl, begin mixing the flour and water with a fork.
2. When a dough starts to form, knead by hand on a smooth wooden surface.
3. Knead the dough until almost smooth, then let it rest for at least 30 minutes.
4. If necessary, add a little extra water, ensuring the dough remains firm and slightly dry.
5. Once rested, cut the dough into four equal parts and roll out uniformly to approximately 1 cm thick.
6. With the help of a blunt table knife, shape into orecchiette and let them dry.
7. Remove and reserve all leaves from the broccoli stalk.
8. Cut the broccoli into small florets, reserving all trimmings and the stalk.

ALMOND FOAM:

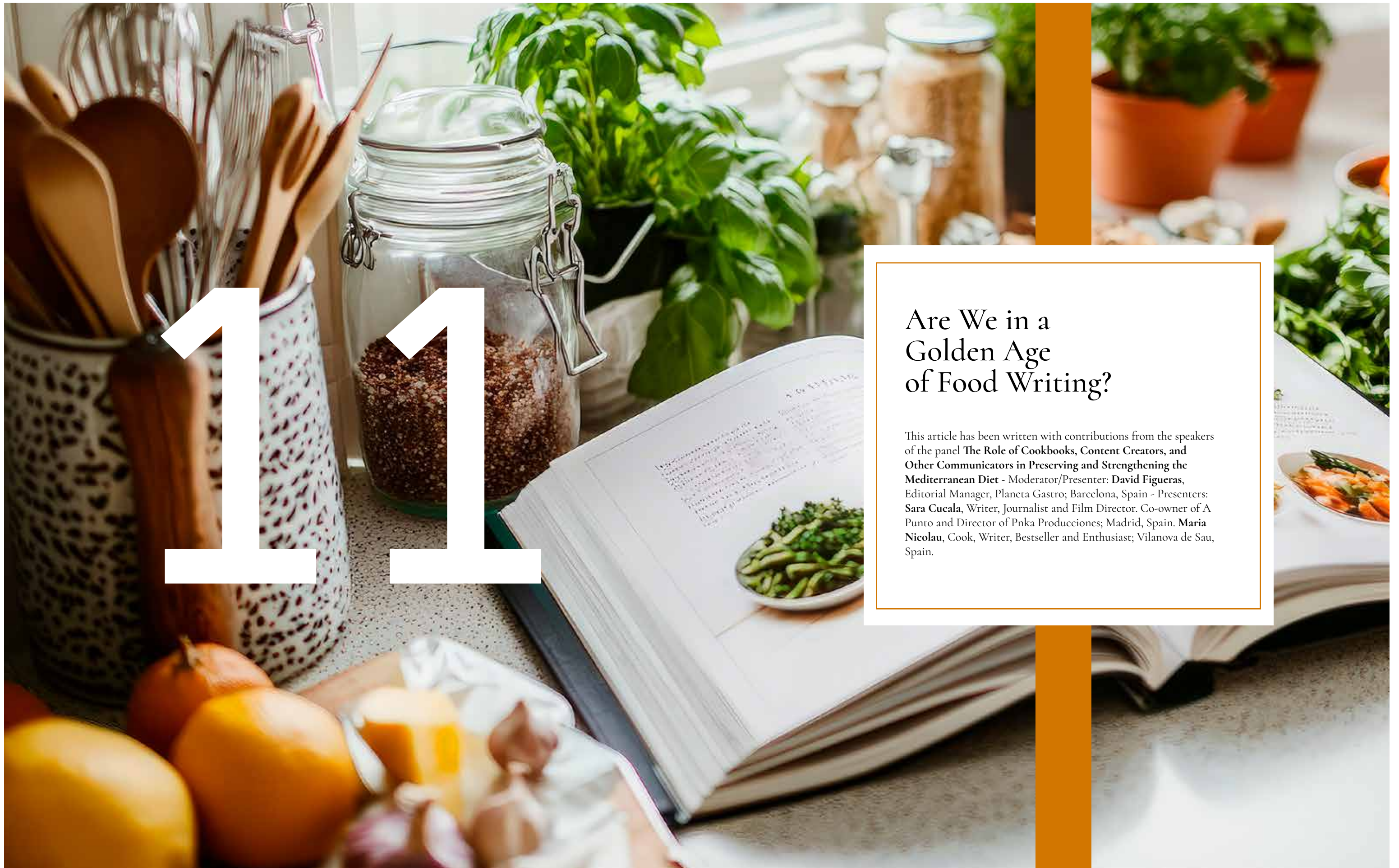
INGREDIENTS

- 400 g unsweetened organic almond milk
- 100 g organic almonds
- 2 garlic cloves

9. Cut the larger trimmings into pieces of approximately 2 x 2 cm.
10. Cook the leaves and all trimmings in boiling salted water until soft.
11. Drain and reserve some cooking water.
12. Gently fry one garlic clove in half of the olive oil.
13. Add one anchovy, allowing it to slowly melt into the oil.
14. Add the cooked broccoli trimmings and sauté for a few minutes, adding cooking water as needed.
15. Transfer to a jug and blend, adding cooking water as needed.
16. Reserve.
17. When it's time to serve, gently fry the remaining garlic clove in the remaining EVOO in a pan.
18. Add the remaining anchovy, allowing it to slowly melt into the oil.
19. At the same time, cook the broccoli florets in abundant boiling salted water for about 2 minutes.
20. Add the orecchiette to the same cooking water and cook for an extra minute.
21. Drain, pour into the pan and cook for another minute; use a little of the reserved cooking water if necessary.
22. Season with salt, and add a little diced red chili and top with almond foam and spirulina.

INSTRUCTIONS

1. Crush the almonds into small pieces.
2. Place them in a tall, narrow saucepan, and add the almond milk, crushed garlic, and thyme.
3. Cover with a lid, bring to a boil, and let it sit for a few minutes.
4. Remove the thyme, mix well, strain, and season to taste.
5. Pour into a 500 ml siphon, charge with gas, shake 16 times and use as needed.



Are We in a Golden Age of Food Writing?

This article has been written with contributions from the speakers of the panel **The Role of Cookbooks, Content Creators, and Other Communicators in Preserving and Strengthening the Mediterranean Diet** - Moderator/Presenter: **David Figueras**, Editorial Manager, Planeta Gastro; Barcelona, Spain - Presenters: **Sara Cucala**, Writer, Journalist and Film Director. Co-owner of A Punto and Director of Pnka Producciones; Madrid, Spain. **Maria Nicolau**, Cook, Writer, Bestseller and Enthusiast; Vilanova de Sau, Spain.

ARE WE IN A GOLDEN AGE OF FOOD WRITING?

The word “gastronomy” has long since ceased to conjure images of men in chef’s whites and tall hats. Today, eating well occupies a large place in many people’s everyday lives. The world of good food has emerged from those out-of-sight kitchens and found its way into the publishing market, where food writing is thriving.

In a publishing market where non-fiction books are the best sellers, books on gastronomy account for six percent of non-fiction sales—far surpassing the sales of books on movies, sports or art. The stunning coffee-table art books from Taschen that entranced us with images of paintings and sculpture now seduce us with images of enticing dishes or superstar chefs.

Journalists, too, are experiencing this cultural shake-up. Gastronomic news, once relegated to the back pages of newspapers, now occupies the front pages. In times past, few publications had more than one food critic. Today, print publications have entire sections devoted to cooking and dining.

We have come full circle. As cooking migrates from restaurant kitchens to the world of communication, how could chefs resist taking part? A chef no longer needs to wear a *toque* to impress. Indeed, many chefs now have more influence outside the kitchen than in it. Witness the impact of Spanish chef and global activist José Andrés.

For some insights into this rapidly developing facet of the food world, we have brought together three people who are leading the change: a book editor/gastronome; a journalist/chef and a chef/writer. Here they share their thoughts on the insatiable modern appetite for communicating about food.



DAVID FIGUERAS, EDITORIAL DIRECTOR OF PLANETA GASTRO



“The publishing market in Spain has experienced sustained growth in recent years, and gastronomy books have proven to be an outstanding pillar,” says Figueras. Non-fiction works—food books among them—represent about 29 percent of publishing industry sales, which hit a record 1.5 billion Euros in 2023.

This strong showing for food books reflects shifts in Spanish society. According to the Observatorio de la Cultura, gastronomy tops fashion and literature as a cultural preoccupation in Spain. Foreigners are also increasingly smitten with the Spanish food scene. Figueras points to the growth in gastronomic tourism and to the rising international profile of Spanish chefs. With better chefs come better books and more awareness of the food sector by the Spanish public.

So how should publishers respond to this interest in localized Mediterranean cuisine? With food-focused books, naturally. *Cocina madre* by Joan Roca. *Vegetables Unleashed* by José Andrés. *Cocina Verde* by Rodrigo de la Calle. All three are renowned chefs who have been defending the heritage of Spanish Mediterranean cuisine in their kitchens for years. Now their books take us on the same journey.

Aroma Arabe by Jamal Salah and *Najat* by Najat Kaanache are hymns to the varied cuisines of the Mediterranean, which share much yet are so different. This diversity should unite us in a shared desire to learn and explore.

Consider *El sabor de la familia* by the Italian-Argentinean Mauro Colagreco, among the best chefs in the world and the first non-French-born chef to receive three Michelin stars. In *Cooking the Mediterranean*, chef Joan Roca’s merges travel with other experiences that have shaped his cooking at the acclaimed Celler de Can Roca. This trove of contemporary food books makes the case for the Mediterranean as a limitless source of inspiration for cuisine and literature.

SARA CUCALA,
JOURNALIST AND CHEF,
FOUNDER OF THE A
PUNTO COOKING SCHOOL
AND PNKA, A CONTENT
PRODUCTION COMPANY
SPECIALIZING IN FOOD
AND BEVERAGE



“I have spent more than 20 years trying to convince the world that gastronomy is not just recipes. It’s how we relate to each other,” says Cucala. Food writing is omnipresent in Spain today, but that was hardly the case when Cucala launched her career.

Great early 20th-century Spanish writers like Emilia Pardo Bazán and Carmen de Burgos wrote about food, but they were not food writers. Nor did newspapers and magazines give much space to food and cooking. The focus on food in today’s media is a recent phenomenon.

Cucala argues that contemporary journalists need to treat the subject of food as they would handle any other topic. The same “who, what, when, where and why” process should apply. By showing food this respect, writers will find powerful themes and worthy subjects in an environment where sensationalism so often prevails.

“How do we get the Mediterranean Diet on the front page of a newspaper?” asks Cucala. “By seizing the news.” When UNESCO designated the Mediterranean Diet as Intangible Cultural Heritage, that was news. When OLDWAYS published its Mediterranean Diet Pyramid, incorporating wine in moderation, that was news.

Strategic timing—the when—is also important. Stories about the Mediterranean Diet will appeal to the media if they are timely and respond to current events or concerns. “I could not publish an article about the Mediterranean Diet when there is no interest in it because no one would read it,” says Cucala. “We have to find the opportunity.”

Cucala urges communicators to think beyond traditional media. She launched her bookstore and cooking school to communicate about food. Although she writes food columns for a newspaper, she also believes we can convey ideas powerfully through books and through cooking.

Journalists aren’t the only effective communicators. Nutritionists are food influencers. So are chefs who teach consumer classes. Whatever their microphone, today’s influencers must communicate “with foundation,” says Cucala. “They must take care to respond to those five W’s to convey useful and truthful information.”

As for the “how,” editors need to respect the writer’s voice, says Cucala. “My voice is not the same as another’s on the same subject, but both voices are necessary,” she argues. “That’s how we correctly define and transmit the nature of the Mediterranean Diet.”

MARIA NICOLAU, CHEF,
COOKBOOK AUTHOR
AND RADIO AND TV
COMMENTATOR

In the eyes of Maria Nicolau, the Mediterranean Diet deserves an apology. “We have reduced a cosmic diversity to two words,” says the chef. “And this simplification impoverishes us.”

“We have more cookbooks than ever before,” she points out. “We have culinary information at our fingertips, in our pockets. But we spend less time and fewer resources cooking at home than at any time in history.”

The term “Mediterranean Diet” represents a vast culinary and cultural inheritance, encompassing everything from Catalan stews to Arabic flatbread. Yet many who advocate for this way of eating prioritize nutrients over traditions.

Consider how many consumers have flocked to salmon as a source of Omega-3 while scorning mackerel, anchovies and sardines—Mediterranean fish rich in the same nutrient, notes Nicolau. By embracing these fish, we get all the Omega-3 we need without betraying culinary customs or separating communities from their culinary identity.

Nicolau argues for a return to the supremacy of local foods and inherited recipes, allowing each region to retain and celebrate its way of eating. “We can use the term ‘Mediterranean Diet’ as a loudspeaker,” she says, “but we should do so to broaden the approach, not to standardize it.”

Standardization obliterates diversity. It may be useful in a restaurant, which needs to standardize recipes and processes to maximize efficiency. But it is antithetical to home cooking, says Nicolau. “People have been cooking for their families for 100,000 years, and the cooking that has sustained us has never relied on grams, minutes or seconds.”

For that reason, the cookbooks she most admires are written by home cooks, says Nicolau. “These books not only teach us how to cook; they are a reflection of resilience and creativity, a practical guide to feeding a family with what was available.”

Bottom line: We would strengthen our culinary future if we returned to cooking at home. “It’s not just a question of health or economy,” says Nicolau, “but an act of cultural resistance, a way of recovering our culinary mother tongue. We learn to cook with what we have, to improvise, to be food sovereigns.”



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