

¹Side Event Organized and Report Prepared by the Sultanate of Oman and the International Union of Food Science and Technology (IUFoST) through its Food Regulatory Science Disciplinary Group, the Global Food Regulatory Science Society (GFoRSS)

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Executive Summary

The Sultanate of Oman, in collaboration with the International Union of Food Science and Technology (IUFoST) through its disciplinary group GFoRSS, convened a side event during the Twelfth Session of the FAO/WHO Coordinating Committee for the Near East (CCNE12) entitled "Novel Foods and Novel Ingredients in the Near East: Unlocking Innovation Through Regulation."

The event underscored the growing importance of novel foods, ingredients, and processes—from valorization of traditional crops such as dates, to advanced production systems such as precision fermentation and cellular agriculture. These innovations offer promising pathways for sustainable nutrition, food security, and economic diversification in the Near East.

Presentations highlighted national experiences from Saudi Arabia and the United Arab Emirates, which have introduced modernized frameworks to enable safe and timely market access for novel foods. Oman showcased its efforts in transforming traditional crops, such as enzymatic liquid sugar from mabesili dates, into high-value products. A moderated discussion emphasized Codex Alimentarius principles—transparency, risk analysis, and science-based decision-making—as the foundation for aligning national regulatory systems with global best practice.

Key messages from the side event included:

- The rich innovation potential of the region's agriculture and food traditions.
- The challenges posed by fragmented definitions, approval processes, and inconsistent data requirements.
- The opportunity to leverage Codex guidance for regulatory modernization and regional convergence.
- The importance of sharing experiences including coordinated reviews, and reliance mechanisms to accelerate safe innovation.

Looking forward, participants supported the idea of establishing a regional platform under CCNE to exchange experiences and best practices on novel foods, prioritize applications of highest regional relevance, and explore the development of Near East—specific guidance. Such an initiative would foster investor confidence, enhance trade opportunities, and ensure that innovation contributes to safe, sustainable, and diversified food systems in the region.

1. Background and Rationale

The side event was convened by the Sultanate of Oman and IUFoST, through its disciplinary group GFoRSS, to address the growing importance of novel foods, ingredients, and processes in the Near East region.

Novel foods—ranging from products valorized from traditional crops (dates, bananas, pulses, algae, spices) to advanced production systems (precision fermentation, cellular agriculture, innovative processing)—represent a strategic lever for food security, sustainability, and economic diversification. However, the region faces challenges due to fragmented definitions, diverse approval processes, and inconsistent data requirements.

Codex Alimentarius has recognized the need to address "New Food Sources and Production Systems" (NFSPS). The side event aimed to explore how Codex principles can guide modernization and harmonization of national frameworks, while encouraging regional cooperation on regulatory pathways for novel foods.

2. Background and Problem Statement

Innovation potential: The Near East's agricultural richness (dates, bananas, pulses, algae, spices, traditional crops) provides a foundation for new novel foods, functional ingredients, and differentiated products. Valorization of traditional foods and local crops, as well as upgrading by-products (e.g., enzymatic date sugar, banana-derived snacks, algae-based proteins), exemplifies pathways to sustainable, high-value innovations.

National efforts: Oman, Yemen, and other countries are advancing research and development that draws on their cultural heritage and crop diversity, linking these assets to nutritional benefits and potential positive health impacts. By-products once considered low

value are being transformed into innovative food ingredients with higher market appeal and improved sustainability.

Regulatory challenge: Fragmentation in definitions, pre-market approval processes, and data expectations hinders innovation. Innovators need predictable, agile frameworks that integrate scientific evidence and international best practice.

Opportunity: Regulatory modernization, aligned with Codex principles, can act as an engine for innovation, facilitating safe, timely market access while fostering regional convergence and investor confidence.

3. Objectives of the Side Event

- To Showcase the innovation potential of Near East agriculture and food systems.
- To Present examples of national regulatory modernization efforts (notably Saudi Arabia and the UAE).
- To Highlight ongoing research valorizing traditional crops and by-products (e.g., enzymatic date sugar from Oman).
- To Discuss Codex's role in shaping regional regulatory convergence.
- To Explore opportunities for CCNE to become a platform of exchange on novel food assessment and guidance.

4. Program Highlights

The event featured:

• Opening remarks by Dr. Hussain Al-Masrori, Director General of the Oman Food Safety and Quality Centre, underlining the role of food innovation in economic diversification and resilience. He emphasized Codex as a "compass" to guide science-based, transparent, and innovation-friendly regulatory systems.

- Regulatory experiences from:
 - The Kingdom of Saudi Arabia: Presentation of the SFDA's General Requirements for Novel Foods (Maram Abdullah Bin Watyan).
 - The United Arab Emirates: Discussion of opportunities and challenges in supporting innovative foods (Sonia Baldi).
- Regional innovation example from Oman: Production of enzymatic liquid sugar from mabesili dates (Albusur), showcasing valorization of traditional crops.
- Moderated discussion: Focused on aligning regional frameworks with Codex riskanalysis principles, while reducing fragmentation and supporting market access.

5. Key Messaging

- 1. **Innovation opportunities:** The Near East's agricultural diversity and cultural heritage offer unique prospects for sustainable novel food development.
- 2. **Regulatory challenges:** Divergent definitions, approval processes, and data requirements create barriers to investment and timely market access.
- 3. **Best practice examples:** The UAE and Saudi Arabia have already implemented innovation-friendly frameworks that balance safety with market facilitation.
- 4. Codex relevance: Codex principles of risk analysis, transparency, and sciencebased decision-making provide the foundation for modernization and convergence.

5. **Regional collaboration:** The CCNE could play a leading role as a platform for exchange, mutual reliance, and coordinated reviews of novel food applications.

6. Path Forward: Toward a Regional Platform on Novel Foods

The side event concluded with consensus on the need for structured cooperation:

- Establish a regional exchange platform: within CCNE to share experiences, safety assessments, and best practices on novel foods and ingredients.
- Prioritize applications: Identify novel foods and functional ingredients of highest relevance to the region (e.g., date-derived products, algae proteins, traditional functional ingredients).
- Promote reliance and joint reviews: Support coordinated reviews and mutual recognition of safety assessments where appropriate.
- Develop Near East—specific guidance: Explore tailored regional guidance for regulatory modernization in line with Codex, ensuring predictability, transparency, and agility.
- Build data and capacity: Strengthen regional scientific capacity and data sharing to underpin risk assessment, while leveraging Codex tools to align methodologies.

7. Conclusion

The side event highlighted both the rich innovation potential of the Near East and the urgent need for harmonized Codex-aligned regulatory frameworks. Oman and IU-FoST/GFoRSS signaled their commitment to continue this dialogue, supporting CCNE Members in creating a regional platform on novel foods.

Such a platform would ensure that innovation in the Near East is safely, efficiently, and confidently translated into markets, contributing to resilient food systems, economic diversification, and strengthened global positioning of the region.