# The NEWFEED project

**part of PRIMA programme,**
**supported and funded under EU Horizon 2020 Framework**
*(Turn food industry by-products into secondary feedstuffs via circular-economy schemes)*

## 4th NEWSLETTER June 2025

The **objective of the project** is the development and adoption of alternative animal feeds setting up a circular economy approach in the livestock production by turning the by-products of the food industry into high value secondary feedstuff for animal feed. The project **also focusses** on the increase of the sustainability of the Mediterranean livestock through the valorisation of local food industry by-products that will lead to reduced environmental impact and costs (winery, orange juice, and olive oil food industries by-products, in the South and East of the Mediterranean: Spain, Greece, and Egypt).

## The NEWFEED partnership

The project partnership involves 14 partners
(R&D Institutes, Universities, Federations) from 4 countries (Egypt, Greece, Spain and Turkey).

# CASE STUDIES RESULTS


**Case study 1: Explore the suitability of using grape stems (GS) for ruminants feeding, using both in vitro and in vivo trials | Spain**

The study adopts a multi-actor approach, encompassing the entire value chain from by-product generation, collection, and processing-stabilization, to feed formulation, animal husbandry, consumer acceptability, sustainability, and regulatory considerations.

Animal efficacy tests conducted, demonstrate that the grape stem-based ingredient offers **clear economic and environmental benefits**. It appears **suitable for inclusion in ruminant diets** without technical issues. Specifically, feeding trials demonstrated that including up to **10% GS or hydrolysed GS (HGS)** in the diet **did not affect animal performance, milk quality, or consumer acceptance**.

In addition, including non-hydrolysed grape stems in the concentrate (10% inclusion) improved milk fatty acid composition towards a healthier one. Overall, **non-hydrolysed grape stems** represent a **cost-effective, sustainable**, and **environmentally friendly** feed option.


**Case study 2: Optimizing the valorization of orange peels through fermentation, hydrolysis, and drying techniques | Greece**

This innovation presents a strong value proposition across several dimensions. For the food industry, it offers an effective solution for **by-product utilization**, helping reduce waste disposal costs while contributing to broader **sustainability** goals. For livestock farmers, it provides a **cost-effective** alternative to conventional feed, with the potential to enhance dairy production and reduce environmental impact. At a systemic level, this **circular economy** model supports the shift toward more sustainable agriculture by demonstrating how industrial by-products can be transformed into valuable resources.

The findings suggest that incorporating orange peel-based feed into Mediterranean livestock systems can improve both **economic** and **ecological sustainability** without compromising the quality of the produced dairy products.


**Case study 3: Examine the effects of incorporating fermented olive cake into broiler diets | Egypt**

Olive cake is a protein-rich by-product of olive oil production that offers a sustainable and **cost-effective** alternative to conventional feed ingredients such as yellow corn.

Findings revealed that increasing levels of olive cake in the diet led to reduced feed consumption and overall feed cost, showcasing its **economic advantage**. Trials showed that, while liver percentage was significantly affected, most blood parameters, including triglycerides and cholesterol, remained unchanged—except for a notable reduction in total cholesterol among broilers fed olive cake.

Overall, the inclusion of olive cake in poultry rations demonstrates a promising, cost-effective solution for modern poultry nutrition, contributing to both **economic efficiency** and **sustainable** feed practices.

# NETWORKING ACTIVITIES


## Strengthening Collaboration: NEWFEED & EXCEL4MED

On 7th of February, NEWFEED and EXCEL4MED projects came together for an insightful networking webinar. The webinar included:

**NEWFEED Presentation:** The discussion explored NEWFEED's work in optimizing food by-products for animal feed, assessing their environmental and economic impact, and engaging stakeholders for industry feedback.

**EXCEL4MED's Vision:** EXCEL4MED representatives presented their project, which focuses on developing an innovative ecosystem for sustainable food processing in the Mediterranean. They highlighted their approach to utilizing green technologies to extract valuable bioactive compounds from pomegranate and citrus by-products.

The webinar facilitated productive discussions, with both projects sharing a commitment to circular economy principles, this webinar marked a step toward stronger partnerships in Mediterranean agri-food sustainability.

EXCEL4MED social networks: Twitter, Facebook, Linkedin, Instagram, Youtube

## Uniting Forces for a Sustainable Food System: NewFeed & WASTELESS

On 13th of March, the NewFeed and WASTELESS projects joined forces for an engaging Networking Webinar. The webinar included:

**NEWFEED Presentation:** The first part of the webinar was dedicated to the NewFeed project, which focuses on transforming agri-food by-products into high-value feed ingredients for livestock and poultry.

**WASTELESS Presentation:** The WASTELESS team took the stage, focusing on developing new tools and methodologies to monitor and prevent food waste across different sectors, based on case studies across the value chain.

NewFeed and WASTELESS partners shared their ambitious goals to scale their solutions across Europe and beyond, contributing to a global movement toward sustainable agriculture and circular economies.

WASTELESS social networks: wastelesseu.com, X, LinkedIn, Youtube

# DEMONSTRATION WORKSHOP: exploring Newfeed ingredients

As part of the Newfeed Project's objectives, stakeholders from across the food industry — including wineries, orange juice and olive oil producers, livestock feed manufacturers, and farmers from the Mediterranean region — were invited to participate in the Demonstration Workshops held throughout the project.
The Demonstration Workshops were scheduled to take place from March 2024 to June 2025, with sessions planned in each of the case study regions (Spain, Greece, and Egypt), alongside a Mediterranean-level workshop.
**These workshops serve as platforms for interactive exploration, allowing participants to dive into the intricacies of NewFeed ingredients and their applications.**


Egyptian Demonstration Workshop

On 9th of October, the **Egyptian Demonstration Workshop** was held at SEKEM Farm in Belbes, Sharkeya, Egypt, organized in collaboration with Heliopolis University for Sustainable Development. The workshop brought together over twenty stakeholders from the feed industry, local stakeholders, and the Newfeed consortium, focusing on sustainable feed solutions for Egypt's chicken farming sector.
The event aimed to tackle two pressing issues in Egyptian poultry farming: high costs of raw materials and the limited availability of affordable, high-quality feedstuffs. Attendees engaged in discussions on strategies to incorporate agricultural by-products into poultry feed, a solution that promises not only economic benefits but also supports the goals of circular economy and resource efficiency.


Spanish Demonstration Workshop

On 26th of March, the **Spanish Demonstration Workshop** was held in Zaragoza as part of the 17th International Animal Production Show (FIGAN 2025). This renowned event is a cornerstone for innovation in livestock production, attracting professionals from across the sector. The workshop, jointly organized by AZTI and UAGA, brought together around 75 stakeholders from the regional feed and livestock industries to explore sustainable, cost-effective alternatives in animal nutrition.
The focus of the workshop was the replication and scaling of NEWFEED project results within Spain, highlighting the transformation of agri-food by-products into viable feed ingredients. Participants included representatives from feed companies, researchers, industry leaders, and technology providers, all invested in addressing shared challenges such as rising feed costs, supply sustainability, and environmental impact.


| ROOM 2 SESSION II | PRIMA NEWFEED: NEWFEED - Turn food industry by-products into secondary feedstuffs via circular-economy schemes Chair: Ev. Achilleos, D. San Martin, E. Barampouti, B. Inarra |
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| 11.45-12.00 | D. San Martin, J. Ibarruri, M. Gutierrez, J. Zufia, B. Iñarra NEWFEED - Turn food industry by-products into secondary feedstuffs via circular-economy schemes |
| 12.00-12.15 | J. Ibarruri, D. San Martin, M. Gutierrez, J. Zufia, B. Iñarra Assessment of the use of grape stem from wineries as a second-generation feedstuff to produce a new feed ingredient for ruminants (dairy sheep and cattle) |
| 12.15-12.30 | S. Mai, E.M.Barampouti, K. Moustakas, M. A. Karatzia, E. Kasapidou Orange peels as a second-generation feedstuff to produce a new feed ingredient for dairy sheep |
| 12.30-12.45 | Hassan. A. F. Rahmy, S. Nour El-Deen, F. M. Abosamra, A. M. Khaled, A. S. M. Korayema Valorization of Olive Cake as a By-product as a Solution for Olive waste and validating the obtained ingredients with Poultry |
| 12.45-13.00 | F. B. Dilek, D. San Martin, U. Yetis Comparative Life Cycle Costing and Life Cycle Assessment of Animal Feed Ingredient Production from Grape Stems, Orange Peels, and Olive Cake |
| 13.00-13.15 | E. Xaxiri, E. Maravelia, El. Tsapa, A. Gavriil, A. Kapetanakou, V. Papadimitriou, D. San Martin Social assessment of turning food industry by-products into secondary feedstuffs via circular-economy schemes (NEWFEED project) |

### 12th International Conference on Sustainable Solid Waste Management

The 12th International Conference on Sustainable Solid Waste Management will be held from June 25 to 28 in Paphos, Cyprus. This major event will bring together experts, researchers, and local authorities to exchange experiences and showcase innovative practices in waste management. The conference will focus on promoting sustainable waste practices, circular economy initiatives, and emerging technologies in hydrogen production and sustainable fuels.
The NEWFEED project will participate in the conference to present and disseminate its final results.