



18th International Conference of the Hellenic Association of Agricultural Economists

> ETAGRO 2025 <

Strengthening the sustainability and resilience of rural economies:
Green transition, digitalization and competitiveness

Conference Programme



<https://etagro.gr/2025/>



OCTOBER
10-11, 2025

Day 1. Friday
Florina Municipal Multipurpose Hall
Mayor Anastasios Soulas str, Florina



Day 2. Saturday
School of Agricultural Sciences,
University of Western Macedonia
Terma Kontopoulou str, Florina



Περιφέρεια
Δυτικής
Μακεδονίας



ΔΗΜΟΣ
ΦΛΩΡΙΝΑΣ



Κουνούπραξία
Συνεταιρισμών
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Ν. Ημαθίας



ΤΕΧΝΗΤΟ
ΕΠΙΜΕΛΗΤΗΡΙΟ
ΕΛΛΑΣ



ΛΙΓΝΙΤΩΡΥΧΕΙΑ ΑΧΛΑΔΑΣ Α.Ε.
ΑΝΩΝΥΜΟΣ ΜΕΤΑΛΛΕΥΤΙΚΗ - ΒΙΟΜΗΧΑΝΙΚΗ & ΕΜΠΟΡΙΚΗ ΕΠΙΧΕΙΡΗΣΗ



100+
ΕΤΟΣ ΙΔΡΥΣΗΣ ΤΟΥ - ESTABLISHED IN 1922
ΓΕΩΠΟΝΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ
AGRICULTURAL UNIVERSITY OF ATHENS

Friday, 10 October 2025

Florina Municipal Multipurpose Hall

9:00

Registration / Check-in

9:30

Opening

10:00 Keynotes

From Fork to Farm to save the Planet

Prof. Konstadinos Mattas, Aristotle University of Thessaloniki, Greece, School of Agriculture. Visiting Professor at CIHEAM/MAICH

From survival to prosperity: A family testimony to the achievements of the CAP

Mr. Nico Kalinis, Programme Manager, Greece CAP2023-2027, DG-Agri, European Commission

11:00

Coffee break

11:30 Session EN1 (in English): Rural Development and Sustainability Pathways

Chairs:

Katerina Melfou, University of Western Macedonia, Greece

Anastasios Michailidis, Aristotle University of Thessaloniki, Greece

The Intricacies of Greece's Energy Transition: Balancing Sustainability, Resilience, and Socio-Economic Equity

Konstantinos Pappas, Jafaru Egieya, Alejandra Franco, Katherine Sotolongo and Wilmar Pastrana Vargas

Presenter: Alejandra Franco

Policy Pathways for the Integration of Crop Wild Relatives (CWRs) in Sustainable Agriculture

Christos Staboulis, Konstadinos Mattas, Eftimia Tsakiridou and Kata Fodor

Presenter: Christos Staboulis

Assessing the influence of internal structure in agricultural systems: A European case study

Leonidas Sotirios Kyrgiakos, Siwei Xiao, Marios Dominikos Kremantzis, Christina Kleisiari, Marios Vasileiou, Georgios Kleftodimos and George Vlontzos

Presenter: Leonidas S. Kyrgiakos

Labour Dynamics in East Crete: Structural Characteristics and the Adoption of Sustainable Agricultural Practices

Penelope Gouta, Vasilia Konstantidelli and Irene Tzouramani

Presenter: Penelope Gouta

Adoption of Sustainable Olive Farming Practices: A Gendered Perspective from Greece

Hadil Rbib, Ioannis Livieratos and Maria Partalidou

Presenter: Maria Partalidou

Mapping the Nexus between Social Sustainability and Sustainable Food Consumption: Research Trends and Insights from a Bibliometric Study

Maria Karavida, Georgios Vassios and Ioannis Antoniadis

Presenter: Maria Karavida

Subsidized yes, but how Satisfied? Evaluating the Impact of Rural Development Measures on Young Farmers in North Aegean

Stratis Sentas, Giorgos Stavrianakis, Sofia Zafeirelli and Thanasis Kizos

Presenter: Thanasis Kizos

13:00 Session EN2 (in English): Agrotourism for Rural Resilience and Local Development

Chairs:

Christos Karelakis, Democritus University of Thrace, Greece

Stavriani Koutsou, International Hellenic University, Greece

Non-formal, experiential learning & agritourism: The case of “The Chilli Factor Organic Farm”

Georgios Karanagnostis, Maria Partalidou, George Malandrakis and Konstantinos Papaspyropoulos

Presenter: Maria Partalidou

Multifunctional Farms in Greece: Opportunities, Challenges, and Prospects for Sustainability

Dimitra Skoufa and Evangelos Pavlis

Presenter: Dimitra Skoufa

Agritourism’s Multidimensional Impact on Local Development Incorporating Innovation and Resilience Factors:**Evidence from Corfu Island, Greece**

Sofia Karampela, Giannis Papathanasiou and Thanasis Kizos

Presenter: Sofia Karampela

Sustainable Wine Tourism in Greece: Preserving Tradition, Building the Future

Anastasia Kyriakidou, Despoina Kouti and Sofia Karampela

Presenter: Despoina Kouti

Gastronomic tourism and festivals: Perceptions of Corfu Residents

Aggeliki Kalabaliki and Sofia Karampela

Presenter: Sofia Karampela

Alternative tourism, a means to agricultural and rural areas’ sustainability, Municipality of Pella case

Christos Poulkas and Sofia Karampela

Presenter: Christos Poulkas

14:20

Lunch break

15:30 Session EN3 (in English): Environmental Transitions in Agriculture and Aquaculture**Chairs:**

Athanasiros Ragkos, Hellenic Agricultural Organization – DEMETER, Greece

Jennifer L.M. Gee, Fishery Officer and Gender Team Lead at the Food and Agriculture Organization of the United Nations (FAO), Italy

Farmers’ attitudes towards innovative waste management

Alexandros Koutsouris and Vasiliki Kanaki

Presenter: Vasiliki Kanaki

Farmers’ opinions on European Green Deal: A focus group approach

Apostolos Goulas, Ilias Tsotsas, Zacharias Papanikolaou and Christos Karelakis

Presenter: Apostolos Goulas

Fostering Agrobiodiversity in the Mediterranean: Legumes Market Dynamics and Policy Trajectories

Konstadinos Mattas, Nikolaos Syndoukas, Efthimia Tsakiridou and Christos Staboulis

Presenter: Nikolaos Syndoukas

Satisfaction Level of Dairy Farmers with Dairy Industries and Cooperatives: An empirical research

Athina Charalampidou, Panagiota Sergaki, Anastasios Semos, Anastasios Michailidis, Thomas Bournaris, Dimitrios Natos, Fotios Chatzitheodoridis and Eustratios Loizou

Presenter: Athina Charalampidou

Environmental analysis of freshwater crayfish production in Greece

Emmanouil Mastoras, Maria Ravani, Georgios Ntinas, Ioannis Giantsis and Maria Alvanou

Presenter: Maria Alvanou

Willingness to use and pay for biobased construction materials: Citizen-survey results from nine European countries

Spyridon Karytsas, Theoni I. Oikonomou and Constantine Karytsas

Presenter: Spyros Karytsas

Saturday, 11 October 2025

School of Agricultural Sciences, University of Western Macedonia

8:30

Registration / Check-in

9:00

Parallel Sessions EN4 – GR1

Amphitheatre

Room B

Session EN4 (in English): Economic Perspectives on Agriculture and the Bioeconomy

Chairs:

*Konstantinos Pappas, Texas A&M Energy Institute, USA
Njazi Bytyqi, University of Prishtina, Kosovo*

On the Topology of Intraday Realized Volatilities across Commodity Sectors, FOREX, and Stock Markets: An Unrestricted Multivariate HAR-VAR Approach

Leonidas Zangelidis and Anthony N. Rezitis

Presenter: Leonidas Zangelidis

Global Employment and Labour Productivity Trends in Fisheries and Aquaculture

Jennifer L.M. Gee, Dario Pinello, Pierre Maudoux, Thorolfur Matthiasson and Konstantinos Polymeros

Presenter: Jennifer L.M. Gee

Efficiency analysis of sheep farms in Cyprus

Sokratis Sokratous, Athanasios Ragkos, Georgios Arsenos and Alexandros Theodoridis

Presenter: Sokratis Sokratous

Regional Disparities in Public Perceptions of Decarbonization and Bioeconomy Acceptance:

Evidence from a Structurally Transitioning Rural Area

Christina Ioanna Papadopoulou, Efstratios Loizou and Fotios Chatzitheodoridis

Presenter: Efstratios Loizou

Gender dimensions of bioeconomic change: insights from Western Macedonia

Aikaterini Paltaki, Maria Partalidou, Stefanos Nastis, Dimitrios Natos, Panagiota Sergaki, Fotios Chatzitheodoridis, Efstratios Loizou and Anastasios Michailidis

Presenter: Aikaterini Paltaki

The Impact of CAP Investment Subsidies on Agricultural Productivity in Greece: A Time-Series Analysis

Zisis Mandanas, Dimitrios Petropoulos and Nikolaos Apostolopoulos

Presenter: Zisis Mandanas

Session GR1 (in Greek): Smart Farming, Sustainability and Human Resources

Chairs:

*Elias Giannakis, Agricultural University of Athens, Greece
Elpida Samara, University of Western Macedonia, Greece*

Developing and validating an instrument for evaluating quality-oriented human resource practices

Nansy Bouranta, Evangelos Psomas and Eleni Matsiouda

Presenter: Evangelos Psomas

Networking tools to facilitate AKIS- actors' interactions in Greece

Eleni Zarokosta

Presenter: Eleni Zarokosta

The impact of smart farming technologies on intensive potato farming: Evidence from Cyprus

Andreas Stylianou, Damianos Neocleous, George Adamides and Vassilis Vassiliou

Presenter: Andreas Stylianou

Sustainable Flour Innovation: Enhancing Product Safety and Market Position through Low-Asparagine Wheat

Elpida Samara, Panagiotis Kafetzopoulos, Dimitrios Kafetzopoulos and Pavlos Kilitzis

Presenter: Elpida Samara

FIWARE-Powered Smart Farming: Integrating Sensor Networks for Sustainable Soil Management

Christos Hitiris, Cleopatra Gkola, Vasiliki Karamerou, Dimitrios J. Vergados and Angelos Michalas

Presenter: Christos Hitiris

The More Vegetable Auctions, the Merrier? The Unique Case of Ierapetra

Angelos Lontakis, Alexandra Sintori, Foivos Anastasiadis, Antonios Proestakis, Antonios Karantinidis and Konstantinos Karantinidis
Presenter: Angelos Lontakis

Is Greek Agriculture a Key Sector? An Input–Output Analysis Based on Output Multipliers

Christos Tsirimokos and Angelos Lontakis
Presenter: Angelos Lontakis

10:40

Coffee break

11:00

Parallel Sessions EN5 – GR2

Amphitheatre

Session EN5 (in English): Food Systems and Circular Economy

Chairs:

Efstratios Loizou, University of Western Macedonia, Greece
Thorolfur Matthiasson, University of Iceland, Iceland

New EU legislation against Greenwashing: Impacts on the Food Sector

Eleni Tzoulia
Presenter: Eleni Tzoulia

Evolution of Mediterranean farmers' competitive positioning in the food supply chain and policy implications

Prodromos Kalaitzis
Presenter: Prodromos Kalaitzis

Understanding the impact of Agroecological products: the Algerian case study

Christina Kleisiari, Aissa Belhadi, Karima Boudedja, Aissa Bekkouche, Vasileios Angelopoulos, Leonidas-Sotirios Kyrgiakos, Marios Vasileiou, Georgios Kleftodimos, Kyriaki Kechri, Dimitra Despoina Tosilianis, Asimina Oikonomou and George Vlontzos
Presenter: Christina Kleisiari

Consumer Typologies in Household Food Waste: Evidence from Urban and Rural households in Greece

Vasiliki Aitsidou, Katerina Melfou and Anastasios Michailidis
Presenter: Vasiliki Aitsidou

The effect of the “Belt and Road” initiative on Greek vegetable exports

Constantinos Oreopoulos
Presenter: Constantinos Oreopoulos

Room B

Session GR2 (in Greek): Innovations in AgriFood Systems and Rural Tourism

Chairs:

Maria Partalidou, Aristotle University of Thessaloniki, Greece
Achilleas Kontogeorgos, International Hellenic University, Greece

Cheese tourism, a connecting link for entrepreneurship development between agri-food and tourism?

Maria Spilioti and Konstantinos Marinakos
Presenter: Maria Spilioti

The Effectiveness of Renewable Energy Sources in Reducing Energy Costs in an Agrotourism Unit

Petros Tigkas, Thomas Kotsopoulos and Maria Partalidou
Presenter: Petros Tigkas

Techno-economic analysis of vegetative propagation methods for Greek mountain Tea (*Sideritis* spp.)

Konstantinos Tousis, Maria Spilioti, Artemis Konstantinou and Garyfalia Economou
Presenter: Konstantinos Tousis

Sustainability assessment of farms managed by young farmers in Cyprus

Andreas Stylianou and Stavroula Ioannou
Presenter: Stavroula Ioannou

Cow-Calf Contact Systems: Is This an Economically Sustainable Option for the Greek Dairy Industry?

Andreas Frantzis, Evangelia Sossidou, Konstantinos Tsimpoukas and George Vlachos
Presenter: Andreas Frantzis

Integrating News Sentiment into Corn Price Forecasting

Asterios Theofilou, Stefanos Nastis and Konstadinos Mattas
Presenter: Asterios Theofilou

Economic aspects of the circular food economy: the case of olive oil

Aristea Kounani, Alexandra Pavloudi and Maria Tsionti
Presenter: Aristea Kounani

Socio-economic and demographic factors influencing consumer preferences for selected vegetables in Kosovo: A survey-based statistical analysis

Njazi Bytyqi, Mentor Thaqi and Salih Salihu
Presenter: Njazi Bytyqi

Modelling the economic sustainability of broiler

farming sector in the Region of Epirus-Greece: Preliminary results

Maria-Zoi Kritsa, Evangelia N. Sossidou, George F. Banias, Dimitrios Foukas and Michael Goliomitis
Presenter: Maria-Zoi Kritsa

12:40 Round Table [in Greek]: Resilient Agriculture and Rural Societies under the New CAP

Chair:

Katerina Melfou, University of Western Macedonia, Greece

Participants:

Antonis Filippis, Secretary General of Rural Policy and International Affairs, Ministry of Rural Development and Food, Greece

Nico Kalinis, Programme Manager, Greece CAP2023-2027, DG-Agri, European Commission

Panagiota Sergaki, Aristotle University of Thessaloniki, Greece

Spyridon Mamalis, Democritus University of Thrace, Greece

Moschos Korasidis, Director General, National Union of Agricultural Cooperatives (ETHEAS), Greece

Dimitrios Natos, Aristotle University of Thessaloniki, Greece

13:40

Lunch break

15:00

Parallel Sessions EN6 – GR3

Amphitheatre

Session EN6 [in English]: Innovations for Sustainable Rural Systems

Chairs:

*George Vlontzos, University of Thessaly, Greece
Georgia Koutouzidou, University of Western Macedonia, Greece*

The DIONYSUS Project – Enhancing Participatory Approaches and Integrated Solutions in the Water-Energy-Food-Ecosystem Nexus

Dimitra Despoina Tosiliani, Leonidas Sotirios Kyriakos, Marios Vasileiou, Christina Kleisiari, Vasileios Angelopoulos, Kyriaki Kechri, Asimina Oikonomou, Georgios Kleftodimos and George Vlontzos
Presenter: Dimitra D. Tosiliani

Room B

Session GR3 [in Greek]: Environmental & Socio-Economic Dimensions of Food Systems

Chairs:

*Alexandra Pavloudi, International Hellenic University, Greece
Antonis Rezitis, Agricultural University of Athens, Greece*

Transforming Agri-Food Systems in Greece: Emission Reductions through the Mediterranean Diet

Phoebe Koundouri, Konstantinos Dellis, Christopher Deranian and Theofanis Zacharatos
Presenter: Theofanis Zacharatos

Environmental & Economic Challenges for the development of fishing tourism in rural-coastal areas

Konstantinia Tsobanaki and Maria Partalidou
Presenter: Konstantinia Tsobanaki

Supporting twin transitions: Developing an overarching competency framework for actors operating in the agrifood system

Chrysanthi Charatsari, Evangelos Lioutas, Panagiota Sergaki, Stefanos Nastis and Anastasios Michailidis
Presenter: Chrysanthi Charatsari

Bibliometric Insights into Forest Bioeconomy and Business Models in Forest Management

Aggelos Simeonidis, Garyfallos Arabatzis, Spyridon Galatsidas, Valantis Malesios and Eleni Zafeiriou
Presenter: Eleni Zafeiriou

Developing students' competences through alternative learning methods: Results of experimental online classes addressing AUA students

Ioanna Skaltsa, Yannis Perifanos and Alex Koutsouris
Presenter: Ioanna Skaltsa

Empowering Sustainable Precision Viticulture: the Vtskills e-learning platform

Aikaterini Paltaki, Dimitra Lazaridou, Efstratios Loizou, Manuel Pérez-Ruiz, Stefanos Nastis, Thomas Bournaris, Tilde Scali and Anastasios Michailidis
Presenter: Aikaterini Paltaki

Rethinking Rural Resilience: Bridging Ecology and Technology for Low-Carbon, Biodiverse Rural Economies within the Context of European Green Deal

Aphrodite Lioliou and Stavroula Kyritsi
Presenter: Aphrodite Lioliou

Intelligent supply chain technologies for agri-food supply chain resilience in the Chinese fruit sector

Styliani Despoudi, Evangelia Nedelkou and Xiaofu Hu
Presenter: Evangelia Nedelkou

Economic Dimension of Digitisation in Olive Cultivation: The Case of Addressing Verticillium Wilt Using New Technologies

Angelos Liontakis and Konstantinos Vasilatos
Presenter: Angelos Liontakis

Consumer attitudes and behavior towards international food standards related to viability and sustainability

Nikolaos Charitos and Georgia Koutouzidou
Presenter: Nikolaos Charitos

The socio-economic and environmental determinants of organic farming expansion in EU: A panel data analysis

Styliani Kostami and Dimitrios Natos
Presenter: Styliani Kostami

Factors Influencing Farmers' Participation in Environmentally Friendly Measures: The Case of the First Implementation of Eco-schemes

Georgia Ouzounidou and George Vlahos
Presenter: Georgia Ouzounidou

Price Gap Analysis in the Cypriot Food Supply Chain: The Case of Fresh Fruits and Vegetables

Andreas Stylianou and Marianthi Giannakopoulou
Presenter: Marianthi Giannakopoulou

Parental and peer influences on food neophobia among young adults: A quantitative analysis of consumption trends

Panagiota Thanasoula, Elena Raptou, Konstantinos Galanopoulos and Konstantinos Polymeros
Presenter: Panagiota Thanasoula

16:40

Conclusions / Closing

17:00

ETAGRO General Assembly

Posters

Strengthening AKIS Governance: Strategic Insights from a SWOT and SPACE Analysis in Greece

Epistimi Amerani, Alexandra Kriari and Anastasios Michailidis

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Enhancing AKIS in Greece: Pathways to Innovation and Collaboration

Epistimi Amerani, Nikoleta Kriari and Anastasios Michailidis

[View poster](#)

Assessing Consumer Awareness and Willingness to Pay for Agroecologically Produced Food in Tunisia

Kyriaki Kechri, Christina Kleisiari, Wafa Koussani, Khawla Hanachi, Haifa Benmoussa, Mehdi Ben Mimoun, Georgios Kleftodimos, Leonidas Sotirios Kyrgiakos, Marios Vasileiou, Vasileios Angelopoulos, Dimitra Despoina Tosiliani, Asimina Oikonomou and George Vlontzos

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Food Waste Behavior among Greece Consumers: A Cluster Analysis

Zacharias Papanikolaou, Christos Karelakis, Apostolos Goulas and Ilias Tsotsas

[View poster](#)

Consumer trends and opinions on high-nutritional-value superfoods

Aggeliki Maggou and Georgia Koutouzidou

[View poster](#)

Evaluating the performance of intercropping different cultivars of breads wheat and field pea using economic indices

Efstratios Deligiannis, Fotios Alexandrou, Paschalis Papakaloudis, Andreas Michalitsis and Christos Dordas

[View poster](#)

Global Research Trends and Thematic Evolution of Sustainable Agricultural Management: A Bibliometric Analysis

Ilias Tsotsas, Zacharias Papanikolaou, Apostolos Goulas and Christos Karelakis

[View poster](#)

Total Quality Management, Cost of Quality & Lean tools in the Greek food industry

Evangelos Bouras

[View poster](#)

Comparing the Economic Value of Pollination Services in the Nestos Region: Insights from Bio-Economic Modeling, Choice Experiments, and Policy Incentives

Faidra Kanonarchi, Tristan Berchoux, Zehra Başaran, Stavriani Koutsou, Nicola Gallai, Mattis Cherdon, Jean-Pierre Del Corso, Christina Kleisiari, Leonidas Sotirios Kyrgiakos, Marios Vasileiou, Vasileios Angelopoulos, George Vlontzos and Georgios Kleftodimos

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No food waste policy: Smart Applications in Green Deal Policy

Sotiria Tsoukarella and Zacharoula Andreopoulou

[View poster](#)

Consumers' willingness to purchase pollinator-friendly products: The case of Greece

Vasileios Angelopoulos, Korina Kechri, Christina Kleisiari, Leonidas Sotirios Kyrgiakos, Marios Vasileiou, Dimitra Despoina Tosiliani, Asimina Oikonomou, Faidra Kanonarchi, Georgios Kleftodimos and George Vlontzos

[View poster](#)

Strengthening the sustainability of the countryside through multifunctionality

Alexandra Pliakoura, Athanasia Mavrommati and Achilleas Kontogeorgos

[View poster](#)

Evaluating the performance of intercropping cereals and legumes to reduce weed pressure

Christos Dordas, Efstratios Deligiannis, Fotios Alexandrou, Paschalis Papakaloudis, Andreas Michalitsis, George Manesis, Zoi Basdagiani and Ioannis Bossis

[View poster](#)

Sustainable Rice: Carbon Footprint and Eco- Efficiency Analysis in Thessaloniki Plain

Eleni Adam, Athanasia Mavrommati and Angelos Patakas

[View poster](#)

Exploring inter-industrial linkages across Greek regions

Elias Giannakis

[View poster](#)

Detecting agricultural policy priorities in political speeches: the case of EU State of Union*Ioannis Masouras and Dimitrios Natos*[View poster](#)**The Role of Private Institutions in Preserving Cultural Heritage and Promoting Cultural Landscapes in Rural Greece:****A Case Study of the Piraeus Bank Group Cultural Foundation***Christina Megariti and Evangelos Pavlis*[View poster](#)**Comparative Evaluation of Sensory Attributes of Coffee Using Best-Worst scaling and Pairwise Comparison****Methods***Nikolaos Garyfallou and Achilleas Kontogeorgos*[View poster](#)**Impact of ISO 22000 Implementation on Organizational and Financial Performance: Evidence from Certified and non-Certified Food Businesses***Maria Tsioni, Zisis Tzikas, Eftychia Karageorgou and Antonios Papadopoulos*[View poster](#)**Innovative pest control: Motives and barriers for Greek farmers***Giorgos Diakoulakis and Irene Tzouramani*[View poster](#)**The role of Computable General Equilibrium in Agricultural Systems through the lens of sustainability and climate change: Insights from a Systematic Literature Review***Dimitra Despoina Tosiliani, Leonidas Sotirios Kyrgiakos, Marios Vasileiou, Christina Kleisiari, Vasileios Angelopoulos, Kyriaki Kechri, Asimina Oikonomou, Georgios Kleftodimos and George Vlontzos*[View poster](#)**Assessing consumer behavior for agroecological products in North Africa- insights from NATAE project***Christina Kleisiari, Nadeen Wael, Ghizlane Echchgadda, Karima Boudedja, Wafa Koussani, Khawla Hanachi, Haifa Benmoussa, Mehdi Ben Mimoun, Kyriaki Kechri, Vasileios Angelopoulos, Leonidas Sotirios Kyrgiakos, Georgios Kleftodimos, Marios Vasileiou, Dimitra Despoina Tosiliani, Asimina Oikonomou and George Vlontzos*[View poster](#)**Farmers' Readiness for Climate Adaptation: Development of the FRCA Index***Georgios Omouridis, Stavriani Koutsou and Georgios Kountios*[View poster](#)**Impacts of agricultural practices on mountain biodiversity***Charisios Achillas, Thomas Varveris, Triantafyllos Bouchounas, Konstantinos Zapounidis and Dimitrios Aidonis*[View poster](#)**Rural Community Development: A Meta-analysis and expert's perceptions***Ioannis Sotiriadis and Maria Partalidou*[View poster](#)**A systematic literature review on examining the role of consumers in participatory approaches in the agri-food systems***Vasileios Angelopoulos, George Vlontzos, Christina Kleisiari, Leonidas Sotirios Kyrgiakos, Marios Vasileiou, Dimitra Despoina Tosiliani, Kyriaki Kechri, Asimina Oikonomou and Georgios Kleftodimos*[View poster](#)**Wild boar population monitoring, hybridization with domestic pig, and use of antigenic periodic sterility as a promising control strategy***Ioannis Giantsis, Danai Antonopoulou and Melpomeni Avdi*[View poster](#)**Detection of *Trichodina* spp. in environmental DNA from the Black Sea basin: Implications for sturgeon population health and monitoring***Dimitrios K Papadopoulos, Maria Alvanou, Ivelina Suleva, Ina Agafonova, Bianca Pavel, Raluca Radulescu, Ovidiu Dragan, Zeynep Demirel, Elif Damla Arisan, Crina Patrichi, Artur Nebunu, Olha Karpenko, Alexandros Theodoridis and Ioannis Giantsis*[View poster](#)

Sophisticated heat shock response of laboratory-hardened Mediterranean mussels when acclimated to complex field conditions and elevated ambient temperatures

Ioannis Georgoulis, Ioannis Giantsis, Basile Michaelidis, George Katselis and Konstantinos Feidantsis

[View poster](#)

Evaluation of Vocational Agricultural Education programs in high schools

Vasileios Kosidis, Anastasios Michailidis and Chrysanthi Charatsari

[View poster](#)

Assessing farm profitability and resilience through Scenario Analysis: Evidence from a farmer group in Western Macedonia

Angelos Prentzas, Christina Moulogianni, Anna Tafidou, Evgenia Lialia, Asimina Kouriati, Eleni Dimitriadiou and Thomas Bournaris

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Tracing the Evolution of ESG Discourse in Agri-Business: A Bibliometric Analysis of Sustainability-Oriented Research and Innovation Pathways

Konstantina Ragazou, Georgia Zournatzidou, George Sklavos, Konstantinos Spinthiropoulos and Nikolaos Sariannidis

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Seasonal Variation in Nutritional and Molecular Profiles of Commercially Important Mullets in Greece

Maria Alvanou, Ioannis Georgoulis, Ioannis Giantsis, Xanthippi Douvi and Konstantinos Feidantsis

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Adoption of Innovations and Advisory Services in the Context of Climate Change: Evidence from Imathia

Evangelia Gianneli and Georgios Kountios

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Policy, Regulation, and Financing in the Transition to Renewable Energy: A Case Study from Western Macedonia

Theofano Kollatou, Athina Krestou, Dimitrios Tsiamitros, Dimitrios Stimoniaris, Stergios Maropoulos and Konstantinos Kyriakopoulos

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Digital mapping of pruning weight in vineyards in the framework of precision viticulture

Aristotelis C. Tagarakis, Katerina Biniari, Ioannis Daskalakis, Dimitrios Kateris, Athanasios Balafoutis and Dionysis Bochtis

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Experimental Assessment of Autonomous Fleet Operations for Precision Viticulture under Real Vineyard Conditions

Gavriela Asiminari, Vasileios Moysiadis, Dimitrios Kateris, Aristotelis C. Tagarakis, Athanasios Balafoutis and Dionysis Bochtis

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Efficiency of *Weizmannia faecalis* in improving boiler performance and gut health in challenged birds

George Symeon, Ilias Giannenas, Panagiotis Sakkas, Ioanna Stylianaki, Despoina Karatosidi, Lydia Zeibich, Alexandra Schlagheck, Dimitrios Verros, Nikolaos Lykos, Dimitrios Koutsianos, Marina Gaitanidou and Vasileios Dotas

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Development of a new strawberry cultivation zone in northern Greece: agronomic, physiological, and economic evaluation of day-neutral genotypes

Marina-Rafailia Kyrou, Dimos Stouris, Ioannis Chatzieffraimidis, Georgia Koutouzidou and Evangelos Karagiannis

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Bridging tradition and innovation through smart agriculture for sustainability and profitability in greek pear orchards

Ioannis Chatzieffraimidis, Ali Abkar, Theodoros Kosmanis, Marina-Rafailia Kyrou, Dimos Stouris and Evangelos Karagiannis

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SecureFood – An Integrated Approach To Enhance Food Systems Resilience, Advocating For Food Security And Uninterrupted Food Supply

Georgia Papoutsi, Irene Tzouramani, Athanasios Ragkos, Eleni Kaimakoudi, Thomas Giotis and Christos Tsirimokos

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A universal-interoperable sustainable agri-water management platform – The UNIVERSWATER project

Pierre Lovera, Gabriela Dudnik, Francesca Audino, Ainhoa Gaudes Saez, Daniel Padrino, Ryan Prendergast, Patrick Tuohy, Mark Healy, Alfieri Pollice, Ivan Portoghesi, Aikaterini Pissaridi, Ilias Tsoumas, Pietro Sciusco, Malamati Louta, Thomas Kyriakidis, Stavroula Tsitsifli, Dionysis Latinopoulos, Panagiotis Vlacheas, Vito Buono, Stylianos Kraounakis, Evangelos Tsipis and Ana de León

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Economic implications of integrated pest management against the tomato pinworm on Crete

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Cow-Calf Contact Systems: Is This an Economically Sustainable Option for the Greek Dairy Industry?

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Abstract: The rising demand for ethically produced dairy products has increased interest in animal welfare-oriented practices, such as Cow–Calf Contact (CCC) systems. The aim of this study was to estimate the economic viability of CCC systems and to compare this to conventional Early Separation (ES) methods. Data was collected by indirect sources such as case studies, statistical yearbooks and available literature. Cost–benefit analysis (CBA) and Break-Even Point Analysis (BEPA) were applied under a moderate scenario, reflecting typical Greek dairy farming conditions. The results indicate that CCC systems can be economically viable, yielding a positive Net Present Value (NPV) of €115,949. Despite producing about 12–15% less marketable milk, the profitability was supported by a welfare-based price premium of around 5%, calves reaching 15–20 kg higher weaning weights with 30% fewer disease treatments, and a 10–12% reduction in replacement costs. The findings suggest that CCC systems can be a competitive and sustainable alternative in Greek dairy production.

Keywords: dairy farming, cow-calf contact, animal welfare, economic sustainability, cost-benefit analysis

Introduction

Dairy farming in Europe produces around 155 million tonnes of milk annually, with Greece contributing about 800,000 tonnes (European Commission, 2020; Eurostat, 2025). This productivity has largely been achieved through intensification, including the widespread practice of early calf separation (ES). While economically efficient, ES raises significant welfare concerns and is increasingly questioned by consumers, who demand products that meet higher ethical standards (Agenäs, 2017-Busch et al., 2017- Placzeket.al., 2021- Sirovica et al., 2022). In this context, Cow–Calf Contact (CCC) systems have gained attention as an alternative that allows calves to remain with their mothers for an extended period. However, despite their potential welfare advantages, the economic viability of CCC remains unclear, particularly under Mediterranean and small-scale farming conditions such as those in Greece. This paper assesses whether CCC can be proposed as an economically sustainable system under average conditions in Greece, addressing a critical knowledge gap in the national dairy sector. The literature highlights both the welfare benefits and potential economic trade-offs of CCC systems, but context-specific analysis is necessary to inform practical decisions by farmers.

Methods

The study applies to a comparative economic evaluation between ES and CCC systems using secondary data from case studies, statistical yearbooks and scientific literature. The framework of Knierim et al. (2020) was used to include both monetary (milk revenue, feed cost, labor) and non-monetary factors (animal welfare, consumer preferences). Cost–Benefit Analysis (CBA) was applied to compare total costs and revenues over a 10-year period. Furthermore, Break–Even Point Analysis (BEPA) was applied to identify the minimum conditions for profitability. Additionally, the Cow-Calf Calculation Model (<https://cowcalfeconomictool.github.io>) was used to simulate and quantify costs, revenues, and net outcomes of the CCC system under Greek conditions. The model allowed for scenario-based sensitivity analysis and estimation of the Net Present Value (NPV). All estimations were adapted to Greek economic conditions using data from the Milk Market Observatory (Milk Market Observatory, 2023; Eurostat, 2025.), national labor and feed prices, and veterinary costs.

Table 1. Input parameters applied in the CCC Calculator.

Parameter	Value	Unit in the tool	Notes / Justification
Renovation cost (for 50 cows)	750	€ (total)	Calculated as +15 €/cow × 50 cows.
Predicted time-span of investment	10	Years	default setting CCC CALLCULATOR
Additional milk price for cow-calf contact	0.05	EUR / l	Based on +10% premium on baseline price of 0.50 €/l
Extra revenue from heavier calf due to cow-calf contact	50	EUR / calf	Reflecting higher weaning weigh
Average loss of saleable milk for cow-calf contact cows	7.5	l / day / cow	Estimated loss from calf suckling
Expected effect on calf mortality rate	-0.5	Percentage points	Negative sign indicates reduction in mortality
Expected effect on veterinary expenses	-5	EUR / calf	Reduction in treatment costs per calf under CCC
Expected impact on labour for feeding	-1	minutes / calf	Approx. -3 min/day overall: -1 feeding, -2 other care
Expected impact on other labour for animal care	-2	minutes / calf	
Expected impact on milk yield for cows in their 1st lactation	1	% change	Slight improvement due to calf suckling

Results and Discussion

Under moderate scenario, the CCC system demonstrated a positive Net Present Value (NPV) of €115,949, indicating long-term profitability. The results showed that the reduction in marketable milk volume (12–15%) due to calf suckling represents an opportunity cost. However, the increased value of calves—thanks to higher weaning weights (15–20 kg) and improved health

outcomes—strengthened the overall economic outcome. In addition, a slight reduction in veterinary costs was observed due to lower disease incidence, while labor expenses moderately increased, mainly because of the need for closer animal monitoring and the more complex milking process. An important factor was the potential for achieving a milk price premium, estimated at around +5% for welfare-certified products.

The Break-Even Point Analysis (BEPA) indicated that CCC systems remain competitive without the need for subsidies or major structural investments, provided that modest improvements in milk pricing or market access are achieved. These findings are consistent with studies from Northern Europe (Knierim et al., 2020), while also highlighting the specific conditions under which CCC can be adapted to small-scale Greek dairy farms.

Conclusions

The analysis supports that CCC systems can be economically sustainable in Greece under moderate conditions. While initial concerns about reduced milk yield and labor costs are valid, the system's benefits in animal health, product differentiation, and market positioning may outweigh these drawbacks. Practical implementation requires careful management and potentially coordinated market support to promote welfare-friendly products. Policymakers and advisors should consider targeted incentives and extension services to facilitate adoption.

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This is to certify that the paper titled **Cow-Calf Contact Systems: Is This an Economically Sustainable Option for the Greek Dairy Industry?** co-authored by **Andreas Frantzis, Evangelia Sossidou, Konstantinos Tsimpoukas and George Vlachos** was presented in the 18th International Conference of the Hellenic Association of Agricultural Economists, held in Florina, Greece, with main topic *“Strengthening the sustainability and resilience of rural economies: Green transition, digitalization and competitiveness”*.

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A handwritten signature in blue ink, appearing to read "KM".

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