



Summer School 2025

Sustainable Nutrient Management in Soilless Culture to Optimise Crop Performance and Minimise Environmental Impacts

 14 - 18 July 2025

 Agricultural University of Athens, Athens, Greece



Welcome Message

Dear participants,

We are delighted to invite you to enrol and attend the **Summer School 2025** on *Sustainable Nutrient Management in Soilless Culture to Optimise Crop Performance and Minimise Environmental Impacts*, hosted by the **Agricultural University of Athens (AUA)** from **14 to 18 June 2025**. The organisation of this Summer School is supported by the European Research Project ECONUTRI (<https://econutri-project.eu/>).

The Summer School 2025 offers a **comprehensive, interdisciplinary course** that will greatly enhance your knowledge in **soilless culture, nutrient management, and sustainability and especially in the management of closed-loop systems allowing for nutrient and water recycling**. The event brings together leading experts and participants from various backgrounds, fostering collaboration and innovation in sustainable agriculture.

The Agricultural University of Athens is leading in research on soilless culture with a plethora of peer-reviewed [publications](#) on this scientific field. AUA has also created the [NUTRISENSE](#) Decision Support System (DSS), which is an online-available application specialised in soilless




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culture. To maximise the quality of the course, in addition to the AUA specialists on soilless culture, four more internationally renowned scientists with expertise in soilless culture and plant nutrition have been invited to teach in this summer school (see teaching schedule).

We look forward to welcoming you in Athens for an enriching experience!

Sincerely,
The Organising Committee

Key Dates

 **31 May 2025** – Application Deadline

 **14 - 18 July 2025** – Summer School (Arrival on **13 July**, Departure on **19 July**)

Why Participate?

- Gain new knowledge about nutrient management in soilless cropping systems with emphasis on closed-loop systems allowing for nutrient and water recycling
- Develop practical skills on nutrient management of soilless crops using novel Decision Support Systems (DSS)
- Network with **leading researchers and fellow participants**

Teaching Schedule

Monday, 14 July 2025

Time	Topic	Tutor
08.30-09.20	Introduction to soilless culture - terminology	Dimitrios Savvas
09.20-10.10	Composition of nutrient solutions	Dimitrios Savvas
10.10-10.40	Break	
10.40-11.30	Technical equipment in soilless cropping systems	Nikos Katsoulas
11.30-12.20	Greenhouse microclimate and soilless cropping	Nikos Katsoulas
12.20-12.50	Break	
12.50-13.40	Cascade hydroponics and aquaponics	Nikos Katsoulas
13.40-14.30	Light Lunch	

Tuesday, 15 July 2025

Time	Topic	Tutor
08.30-09.20	Control of nutrient supply in soilless culture	Dimitrios Savvas
09.20-10.10	Nutrient recycling in closed-loop systems	Dimitrios Savvas
10.10-10.40	Break	
10.40-11.30	Soilless cropping and crop nutrition impact	Georgia Ntatsi
11.30-12.20	Substrates and crop nutrition in soilless culture	Georgia Ntatsi

12.20-12.50	Break	
12.50-13.40	Special nutrient needs of greenhouse crops	Georgia Ntatsi
13.40-14.30	Light Lunch	

Wednesday, 16 July 2025

Time	Topic	Tutor
08.30-09.20	Special DSS for nutrition control - NUTRISENSE	Dimitrios Savvas
09.20-10.10	Nutrition control in closed soilless systems	Dimitrios Savvas
10.10-10.40	Break	
10.40-11.30	Environmental footprint of soilless cropping	Georgios Ntinis
11.30-12.20	Life cycle assessment of hydroponic systems	Georgios Ntinis
12.20-12.50	Break	
12.50-13.40	Carbon footprint & Green Deal goals	Georgios Ntinis
13.40-14.30	Light Lunch	

Thursday, 17 July 2025


Time	Topic	Tutor
08.30-09.20	Soilless cropping in SE Spain & Mediterranean	Rodney Thompson
09.20-10.10	Free-draining soilless cropping - Spain	Rodney Thompson
10.10-10.40	Break	
10.40-11.30	Nutrient management in practice	Tommaso Barbagli
11.30-12.20	Fertiliser recipe calculations	Tommaso Barbagli
12.20-12.50	Break	
12.50-13.40	How to read and interpret an analysis report I	Tommaso Barbagli
13.40-14.30	Light Lunch	


Friday, 18 July 2025

Time	Topic	Tutor
08.30-09.20	How to read and interpret an analysis report II	Tommaso Barbagli
09.20-10.10	Practical exercise: Water & drain analysis	Tommaso Barbagli
10.10-10.40	Break	
10.40-11.30	Retention/loss of nutrients in substrate	Rodney Thompson
11.30-12.20	Use of models for improved nutrient management	Rodney Thompson
12.20-12.50	Break	
12.50-13.40	Sensor-based crop nutrition management - Outlook	Dimitrios Savvas
13.40-14.30	Light Lunch	



How to Apply

 Applications can be submitted via the following link: [Registration Form](#)

 **Contact us:** kargyropoulou@aua.gr

Venue: Agricultural University of Athens

The Agricultural University of Athens is one of the leading academic institutions in **agricultural sciences**, with a strong focus on **sustainability and innovation**. The campus offers **state-of-the-art research facilities** and a vibrant academic environment, located in the heart of **Athens, Greece**.

Participation is possible only in-person. There is no option for online participation.

Travel and Accommodation

Please note that travel expenses and accommodation must be covered by the participants.

For information regarding accommodation and tickets, [please contact AFEA Travel Agency](#).

Coffee/refreshments and light lunches during the summer school course will be covered by the organisers

Further details as to how to reach the teaching room where the Summer School is going to take place, will be announced to the registered participants after completion of the registration process.

This Summer School is supported by the European Project: ECONUTRI
(<https://econutri-project.eu/>).

We look forward to welcoming you to an exciting and insightful **Summer School 2025!**



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