

Orestis Giannopoulos

Postharvest Scientist | Application Scientist (Fruits & Vegetables)

University of Georgia

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OBJECTIVE

To work in application-focused roles translating postharvest science, sensor technologies, and storage systems into practical solutions for fruit and vegetable quality, shelf-life management, and technology deployment across real-world supply chains.

EDUCATION AND TRAINING

April 2021-Present

University of Georgia, USA

- **Doctor of Philosophy**

Ph.D. College of Agricultural and Environmental Sciences Department of Horticulture

- *Area of Emphasis: **Postharvest Science.***

- *Research Focus: Postharvest quality, chilling injury, and non-destructive sensing in fruit.*

- *Dissertation: NIR-based assessment of harvest maturity and chilling injury susceptibility in peaches*

October 2013-2018

University of Patras, Greece

- **B.SC in Agriculture**

Bachelor of Science in Agriculture, Agricultural Technology, and Food and Nutrition Technology

- *Area of Emphasis: **Plant Production.***

- *Six-month Internship in the company "Davvos Paraskevas". Subject of training: Agricultural fertilizers, prescription of pesticides, and vegetable seed production.*

- *Senior Thesis: "Vegetable Production of Four Onion Varieties in Hydroponic Floating System. Morphological and qualitative characteristics."*

WORK EXPERIENCE

Assistant Researcher

Postharvest Physiology Laboratory, University of Georgia, USA

April 2021 – Present

- Worked on fruit and vegetable postharvest projects involving peaches and other horticultural commodities
- Operated aqueous ozone systems combined with nanobubble technology for postharvest sanitation
- Conducted gaseous ozone treatments in controlled cold storage environments

- Applied 1-MCP for postharvest storage and ripening management studies
- Operated portable NIR sensors for non-destructive maturity and postharvest disorder assessment
- Supported GC-MS workflows (HS-SPME sample preparation, instrument setup, run parameters)
- Developed and followed SOPs for storage, treatment, and quality evaluation
- Translated experimental results into technical reports, figures, and presentations

Greenhouse & Hydroponic Systems Technician

Rhodoland Plant Nursery, Aigion, Greece

2019 – 2021

- Maintained and monitored hydroponic and aeroponic production systems for plant propagation
- Designed and implemented hydroponic system layouts, including nutrient delivery and irrigation components
- Assisted in system optimization to improve plant growth uniformity and operational efficiency
- Supported daily greenhouse operations, including environmental monitoring and plant handling
- Prepared technical and progress reports as part of the HYDRERO funding program requirements
- Collaborated with nursery staff on project planning and documentation related to hydroponic system development

Crop Production Technician (Family Operation)

Giannopoulos Farms, Sopion, Greece

2010 – Present

- Practical experience with perennial crops, including olive trees and vineyards
- Assisted with pruning, fertilization, plant protection, and harvest operations

TEACHING & TRAINING EXPERIENCE

Laboratory Demonstrator / Guest Instructor

University of Georgia, Department of Horticulture | 2021 – Present

- Delivered hands-on laboratory instruction to visiting undergraduate students from partner institutions (Abraham Baldwin Agricultural College).
- Explained the operation, purpose, and safety considerations of postharvest

laboratory equipment and storage systems.

- Introduced students to postharvest research workflows, including fruit quality evaluation, storage trials, and experimental design.
- Provided guided explanations of laboratory responsibilities, research objectives, and real-world postharvest applications.
- Participated in structured laboratory outreach activities approximately twice per year since 2021.

KEY SKILLS

- Postharvest Physiology & Quality Evaluation
(fruit and vegetable storage, chilling injury, decay, shelf-life)
- Postharvest Technologies
(aqueous & gaseous ozone, nanobubble systems, 1-MCP applications)
- Non-Destructive Sensing
(NIR spectroscopy, maturity and disorder assessment)
- Laboratory & Instrument Operation
(cold storage systems, ozone generators, GC-MS setup, quality instruments)
- Experimental Design & SOP Development
(controlled trials, repeatable workflows, safety procedures)
- Data Interpretation & Visualization
(figures, tables, technical reporting)
- Scientific Communication
(manuscripts, presentations, interdisciplinary collaboration)
- Digital & Analytical Tools
(R / RStudio, Python – basic, Excel & PowerPoint, AI-assisted workflows)

EXTRACURRICULAR SKILLS

Languages: Greek (Native), English (Fluent)

Certifications:

- PADI Open Water Diver: Certified for open water scuba diving
- Boat Operation License
- Laboratory Outreach & Science Communication
- Experience engaging visiting students and non-specialist audiences through laboratory demonstrations and discussions of postharvest research and technology.

SELECTED PUBLICATIONS

1. Bhattarai, G., O. Giannopoulos, R.N. Corn, C.E.E. McAvoy, A. Deltsidis, M.L. Worthington, P.J. Conner. 2023. Analysis of the Aroma Volatile Profile of Muscadine Grape Germplasm by Headspace Solid-Phase

Microextraction Coupled with Gas Chromatography-Mass Spectrometry. August 25, 2023. *Horticulturae* 2023, 9(9), 1054; <https://doi.org/10.3390/horticulturae9091054>

2. Effects of Ozone Nanobubble Treatments on Postharvest Quality of Fresh Peaches
Giannopoulos, O.*, R.N. Corn, D.J. Chavez, F.E. Loayza-Dávila, A. Deltsidis
<https://doi.org/10.21273/HORTTECH05557-24>
3. Elevated Gaseous Ozone Concentrations: Adverse Effects on Postharvest Peach Quality
Orestis Giannopoulos, Ramsey Corn, Camille Esmel McAvoy, Jakeline Zuluaga-Acosta, Dario Chavez & Angelos Deltsidis <https://www.tandfonline.com/doi/full/10.1080/19476337.2025.2502532>
4. Postharvest Responses of Fresh Peaches to Gaseous Ozone Treatments During Cold Storage (*In Press*)
5. Evaluating the Effects of Storage Temperature and Duration on Chilling Injury and Postharvest Quality in Peach Cultivars (*Under Submission*)
6. Giannopoulos, O.*, D.J. Chavez, A. Deltsidis
'Peaches: Appropriate Harvest and Postharvest Handling' B 1555 (<https://fieldreport.caes.uga.edu/wp-content/uploads/generated-pub-pdfs/B-1555.pdf>)

RECENT CONFERENCE PARTICIPATIONS

- 29th Conference of Greece Industry of Fruits and Vegetables Science “Research Applications and Cutting-Edge Technologies in Plants Production”. Patra, Greece 15-18 October 2019.
- **Georgia Farm Bureau State Commodity Conference**
Tifton, Georgia, August 2021
“Investigating the potential of oxygenated and ozonated water as replacements for chlorinated water for peach sanitation” (Poster presentation)
- **134th Florida State Horticulture Society (FSHS)**
Daytona Beach, Florida, United States, September 26-28, 2021
“Investigating the potential of oxygenated and ozonated water as replacements for chlorinated water for peach sanitation” (Oral presentation)
- **Southern Region ASHS (SRASHS).**
New Orleans, Louisiana, United States, February 11-13, 2022
“Studying the impact of ozonated water treatments on the postharvest quality of fresh peaches” (Oral presentation)
- **International Society for Horticultural Science (ISHS)**
Naoussa, Greece, May 30 – June 3, 2022
“Studying the impact of ozonated water treatments on the postharvest quality of fresh peaches” (Oral presentation)
- **135th Florida State Horticulture Society (FSHS)**
Sarasota, Florida, United States, June 5-7, 2022
“Studying the impact of ozonated water treatments on the postharvest quality of fresh peaches” (Oral presentation)

- **American Society for Horticulture Society (ASHS)**
Chicago, Illinois, United States, July 30 – August 3, 2022
“Investigating the efficacy of ozone applications on the shelf-life extension of fresh-market peaches” (Oral presentation)
- **Southern Region ASHS (SRASHS).**
Oklahoma City, Oklahoma, United States, February 3-5, 2023
“Investigating the Effects of Gaseous Ozone Addition During Cold Storage on Fresh Peach Quality” (Oral presentation)
- **International Society for Horticultural Science (ISHS)**
Postharvest Unlimited Conference.
Wageningen, Netherlands, February 14-17, 2023
“Studying the Effects of Gaseous Ozone Application on the Postharvest Quality of Fresh Produce” (Oral presentation)
- **136th Florida State Horticulture Society (FSHS)**
Daytona Beach, Florida, United States, June 11-13, 2023
“Assessing the Effects of Gaseous Ozone Application During Cold Storage on Fresh Peach Quality” (Oral presentation)
- **American Society for Horticulture Society (ASHS)**
Orlando, Florida, United States, July 31 – August 4, 2023
“Examining the Effects of Gaseous Ozone Application on the Postharvest Quality of Different Fruits and Vegetables.” (Oral presentation)
“Studying the kinetics of ozone decomposition during postharvest treatments in fresh-market peaches” (Poster presentation)
“Studying the Effects of Gaseous Ozone Application on the Postharvest Quality of Fresh Produce” (Ignite Competition)
- **American Society for Horticulture Society (ASHS)**
Honolulu, Hawaii, United States, September 23 – 27, 2024
“Examining the Effects of Gaseous Ozone Application on the Postharvest Quality of Different Fruits and Vegetables.” (Oral presentation)
“Studying the kinetics of ozone decomposition during postharvest treatments in fresh-market peaches” (Poster presentation)
“Studying the Effects of Gaseous Ozone Application on the Postharvest Quality of Fresh Produce” (Ignite Competition)

AWARDS AND SCHOLARSHIPS

September 23, 2024

University of Georgia Horticulture Department Student Travel Grant (\$1,000)

September 23, 2024

American Society for Horticulture Science (ASHS) Annual Conference. Student Travel Scholarship (\$500)

January 12, 2023

HORTICULTURE McHatton Horticulture Endowment, T. H. Student Travel Grant (\$1,500)

November 10, 2022

Gerondelis Foundation Scholarship for Excellence in Graduate Studies (\$5,000)

June 5, 2022

Florida State Horticulture Society (FSHS) Annual Conference. Student Travel Scholarship (\$200)

July 30, 2022

American Society for Horticulture Science (ASHS) Annual Conference. Student Travel Scholarship (\$500)

REFERENCES

Dr. Angelos Deltisidis – Assistant Professor, Postharvest Science, University of Georgia, USA

Email: adeltisidis@uga.edu

Dr. Ioannis S. Minas – Associate Professor of Pomology, Colorado State University, USA

Email: ioannis.minas@colostate.edu

Dr. Dario Chavez – Associate Professor of Peach & Citrus Breeding, University of Georgia, USA

Email: dchavez@uga.edu

Prof. Georgios Salachas – Professor of Plant Physiology and Nutrition, University of Patras, Greece

Email: gsalachas@upatras.gr