

PERSONAL INFORMATION

NAME	Filippos
SURNAME	Bantis
PROFESSIONAL STATUS	Assistant Professor
SUBJECT	VEGETABLE CROPS – GREENHOUSE CROPS
E-MAIL	fbantis@uowm.gr

RELEVANT WEBSITES

- **Scopus:** <https://www.scopus.com/authid/detail.uri?authorId=57046051600>
- **Google Scholar:** <https://scholar.google.com/citations?user=w7QzVQ8AAAAJ&hl=en>
- **ORCID:** <https://orcid.org/0000-0001-6470-2333>

EDUCATION

December 2020 - March 2023

Postdoctoral researcher at the Aristotle University of Thessaloniki, Faculty of Agriculture, Forestry and Natural Environment, Department of Agriculture.

Postdoctoral Research at the Laboratory of Vegetable Crops on the subject: "Physiological study of transplanting stress of vegetable plants and its effect on their growth and quality" under the supervision of Assistant Professor Dr. A. Koukounaras.

October 2016 - September 2020

PhD at the Aristotle University of Thessaloniki, Faculty of Agriculture, Forestry and Natural Environment, Department of Agriculture.

PhD thesis at the Laboratory of Vegetable Crops on the subject: "Effects of light spectra from light-emitting diodes on the growth and quality of grafted watermelon seedlings" under the supervision of Assistant Professor Dr. A. Koukounaras.

Date of PhD: 01/09/2020.

<https://www.didaktorika.gr/eadd/handle/10442/48134>

February 2021 - April 2022

PhD at Goethe University, Institute for Ecology, Evolution and Biodiversity, Frankfurt am Main, Germany.

PhD thesis at the Laboratory of Plant Physiology on the subject: "Assessing the physiology and growth of mature and young European oaks under aspects of climate change" under the supervision of Prof. Dr. W. Brueggemann.

Date of PhD: 22/04/2022.

https://books.google.gr/books/about/Assessing_the_Physiology_and_Growth_of_M.html?id=c75AzwEACAAJ&redir_esc=y

October 2013 - September 2015

MSc student at the Aristotle University of Thessaloniki, Faculty of Agriculture, Forestry and Natural Environment, Department of Agriculture.

Specialty: "Plant Genetic Improvement, Agronomy and Weed Science".

MSc thesis at the Laboratory of Agricultural Chemistry on the subject: "Effect of artificial illumination of Light-Emitting Diodes on the growth of pomegranate seedlings" under the supervision of Professor Dr. E. I. Konstantinidou.

Date of MSc degree: 30/09/2015.

September 2007 - February 2013

Degree of Agriculture at the Aristotle University of Thessaloniki, Faculty of Agriculture, Forestry and Natural Environment, Department of Agriculture [5-year course of study - integrated master (Government Gazette 3231/τ. Β /22-8-2019)].

Thesis at the Laboratory of Agriculture on the subject: "Interaction of boron toxicity with salinity" under the supervision of Assistant Professor Dr. C. Dordas.

Date of graduation: 21/02/2013.

Foreign languages

English: excellent knowledge

Certificate of Proficiency in English, University of Michigan

Computer knowledge

- European Computer Driving License (ECDL) certificate (word processing, spreadsheets, other MSOffice programs, internet services)
- Statistical analysis with SPSS and Prism packages
- Root system architecture analysis with WinRHIZO Pro software

Seminars

- "Data analysis with statistical packages", Aristotle University of Thessaloniki, Department of Agriculture, 12 hours, 16-24 May 2014.
- Participation in the Training School "TS1 - State-of-the-art in the field of plasma agriculture and food technologies" in the framework of COST CA19110 "Plasma applications for smart and sustainable agriculture" - PIAgri. 17-19 March 2021, Jahorina, Bosnia and Herzegovina.

TEACHING ACTIVITIES

INDEPENDENT TEACHING IN POSTGRADUATE PROGRAMMES

Spring semester 2021-2022 and Winter semester 2023-2024: University of Western Macedonia, Department of Agriculture.

Independent teaching of the course "Modern applications in the technology and production of floriculture and horticulture" of the MSc Degree Programme "Production, certification and distribution of plant propagating material".

INDEPENDENT TEACHING IN GRADUATE PROGRAMMES

Fall and spring semester 2021-2022: University of Western Macedonia, Department of Agriculture.

Theories and workshops of the courses "Greenhouse Crops" (winter semester) and "Vegetable Crops" (spring semester) in the framework of the project "Acquisition of academic teaching experience for young scientists holding a PhD at the University of Western Macedonia for the academic year 2021-2022".

Winter and spring semester 2022-2023: University of Western Macedonia, Department of Agriculture.

Theories and workshops of the courses "Standardization and Packaging of Agricultural Products", "Floriculture" (winter semester) and "Vegetable Crops" (spring semester until 3/2023). Resignation due to my appointment at the University of Patras in the framework of the project "Acquisition of academic teaching experience for young scientists holding a PhD at the University of Western Macedonia for the academic year 2022-2023".

Supervision of 10 theses at the University of Western Macedonia, Department of Agriculture.

Supervision of 5 theses at the University of Patras, Department of Agriculture.

Spring semester 2022-2023 and 2023-2024: University of Patras, Department of Agriculture.

After assignment by the General Assembly of the Department, independent teaching of the courses "Vegetable Crops", "Greenhouse Crops" and "Postharvest Technology".

Winter semester 2023-2024: University of Patras, Department of Agriculture.

After the assignment of the General Assembly of the Department, independent teaching of the courses "Field Vegetable Crops" and "Production of Propagating Material".

PARTICIPATION IN ERASMUS+ PROGRAMME

June 2023. Invited lecturer during the Blended Intensive Programmes (BIP, Erasmus+) entitled "Traditional varieties, from the past to the future", coordinated by the University of Tuscia, Viterbo (Italy) and partnered by the University of Valencia (Spain) and the Department of Agriculture of AUTH. Lecture on "Case studies of underutilized vegetable crops and local varieties usage in Greece".

PARTICIPATION IN POSTGRADUATE PROGRAMME

Winter and spring semesters 2020-2021, 2021-2022 and 2022-2023: Aristotle University of Thessaloniki, Department of Agriculture.

Invited lecturer for the courses AKA805 "Physiology of vegetable plants and modern cultivation techniques" and AKA810E "Physiology of plant nutrition" of the MSc Degree Programme "Sustainable Agricultural Production Systems and Climate Change". The lectures were given in the form of three-hour lectures.

PARTICIPATION IN LIFELONG LEARNING PROGRAMME

10/11/2018 and 7/12/2019: Aristotle University of Thessaloniki, Department of Agriculture.

Participation as an instructor in the educational program "Modern requirements of hydroponic tomato cultivation in the greenhouse" organized by the Centre for Training and Lifelong Learning of the Aristotle University of Thessaloniki, Greece, in two cycles (2018-2019).

PARTICIPATION IN GRADUATE PROGRAMME

2018-2023: Aristotle University of Thessaloniki, Department of Agriculture and Democritus University of Thrace, Department of Forestry, Environmental Management and Natural Resources.

Participation in the supervision of 5 postgraduate and 22 bachelor theses.

Spring semesters 2016-2017 and 2017-2018. Aristotle University of Thessaloniki, Department of Agriculture.

Assignment of the Department of Horticulture and Viticulture to assist in the exercises of the course N538E "Vegetable cultivation in greenhouses".

Winter semesters 2018-2019. Aristotle University of Thessaloniki, Department of Agriculture.

Assignment of the Department of Horticulture and Viticulture to participate in the exercises of the course N533E "Special Vegetable Crops I".

PROFESSIONAL EXPERIENCE AND RESEARCH ACTIVITY

- **17/3/2023 – 4/9/2024:** Assistant Professor at the Department of Agriculture, University of Patras, Messolonghi, Greece.

RESEARCH PROJECTS AS PRINCIPAL INVESTIGATOR

- **6/2021 - 8/2021:** Research project "Study of the effect of light, nutrient solution and substrate on the yield and quality of microgreens". Funding: Panagiotis Vafiadis, Individual Enterprise. Implementing Agency: Aristotle University of Thessaloniki. Scientific Officer: Filippos Bantis
- **6/2021 - 8/2021:** Research project "Evaluation of the quality and physiological condition of leafy vegetables under the influence of light and nutrient solution in vertical cultivation". Funding: Maestranza, Limited Partnership. Implementing agency: Aristotle University of Thessaloniki. Scientific Officer: Filippos Bantis. In the context of my cooperation with Maestranza, an innovation award was granted.

RESEARCH PROJECTS AS MEMBER OF THE RESEARCH TEAM

- **8/2013 – 12/2014:** Work under a service contract in the European project "REGEN-FOREST - Sustainable production of forest regeneration materials for protection against climate changes". Funding: FP7 - 286067.
- **1/2015 – 11/2015:** Work under a service contract for the European project 'ZEPHYR - Zero-impact innovative technology in forest plant production'. Funding: FP7- 308313.
- **2/2016 – 9/2017:** Work under a service contract in the research project "European Oaks Under Climate Change". Funding Förderprogramm, Internationale Zusammenarbeit in Bildung und Forschung, Region Mittelost- und Südosteuropa (MOEL-SOEL-Bekanntmachung).
- **3/2018 – 11/2018:** Work under a service contract for the research project "Comparison of pumice, rockwool and perlite as substrates for hydroponic cultivation of tomatoes in the greenhouse". Funding: LAVA MINING AND QUARRYING COMPANY.
- **12/2018 – 1/2022:** Work under a service contract in the national project "LEDWAR - Application of artificial lighting with LED lamps to reduce the cost of production of high quality grafted watermelon seedlings". Funding: NSRF 2014-2020 (Research-Create-Innovate). A Patent was awarded within the framework of the project.
- **3/2019 - 12/2019:** Work under a service contract for the research project "Comparison of pumice, rockwool, perlite and coir as substrates for hydroponic tomato cultivation in the greenhouse and their reusability". Funding: LAVA MINING AND QUARRYING COMPANY
- **11/2019 – 12/2019:** Work under a service contract in the research project "Evaluation of pre-harvest factors on the preservation and post-harvest quality of baby-leaf vegetables". Funding: Vezyroglu A. & Co..
- **4/2018 – 3/2020:** Bilateral cooperation programme between Greece and Germany "FUTUREOAKS_IKYDA: Selection and implementation of oak provenances for future climate scenarios in Greece and Germany". Funding: German Academic Exchange Service (DAAD).
- **2/2021 – 3/2021:** Work under a service contract in the research project "Evaluation of pre-harvest application of biostimulants and environmentally friendly post-harvest applications on the shelf life and post-harvest quality of baby-leaf vegetables". Funding: Vezyroglu A. & Co.
- **7/2021 – 5/2022:** Work under a service contract in the research project "Post-harvest evaluation of the Gold3 genotype, Stage 3". Funding: ZESPRI GROUP LIMITED.
- **12/2021 – 2/2022:** Work under a service contract in the research project "Management of primary production of baby-leaf vegetables ". Funding: Vezyroglu A. & Co..
- **3/2022 – 3/2023:** Work under a service contract for the European project Biovalue "Factor simulation tool for improving biodiversity in the agri-food chain from fork to farm". Funding: Horizon 2020.
- **6/2022 – 3/2023:** Work under a service contract for the CarboNostrum Community project "Climate-smart agriculture in a changing world". Funding: ERASMUS+ 2021-2027.
- **6/2022 – 4/2023:** Work under a service contract in the research project "Post-harvest evaluation of the Gold3 genotype, Stage 3, 2022". Funding: ZESPRI GROUP LIMITED.
- **2/2023 – 3/2023:** Work under a service contract in the research project "Investigation of factors affecting the growth and development of leafy vegetable crops". Funding: Vezyroglu A. & Co.

INTERNATIONAL NETWORKS, SOCIAL ACTION PROGRAMMES

- **April 2016 - October 2020**
Management Committee Substitute for the COST Action CA15136 "European network to advance carotenoid research and applications in agro-food and health (EUROCAROTEN)"
<https://www.cost.eu/actions/CA15136/#tabs|Name:management-committee>
- **June 2020 - October 2024**
Management Committee Substitute for the COST Action CA19110 "Plasma applications for smart and sustainable agriculture"
<https://www.cost.eu/actions/CA19110/#tabs|Name:management-committee>
- **June 2022 - today**
Member of the Management Committee of the COST Action CA21157 "European Network for Innovative Woody Plant Cloning (COPYTREE)"
<https://www.cost.eu/actions/CA21157/#tabs+Name:Management%20Committee>
- **June 2023 - today**
Member of the Management Committee of the COST Action CA22146 "Harnessing the potential of underutilized crops to promote sustainable food production (DIVERSICROP)"
<https://www.cost.eu/actions/CA22146/#tabs+Name:Management%20Committee>

LIST OF PUBLICATIONS

PhD DISSERTATIONS

PhD1. Bantis F, 2020. Effects of light spectra from light-emitting diodes on the growth and quality of grafted watermelon seedlings. Aristotle University of Thessaloniki, School of Agriculture, 135 pages. <https://www.didaktorika.gr/eadd/handle/10442/48134>

PhD2. Bantis F, 2022. Assessing the physiology and growth of mature and young European oaks under aspects of climate change. Goethe University, Institute for Ecology, Evolution and Biodiversity, Frankfurt am Main, Germany, 100 pages.
https://books.google.gr/books/about/Assessing_the_Physiology_and_Growth_of_M.html?id=c75AzwEACAAJ&redir_esc=y

MSc DISSERTATION

MSc. Bantis F, 2015. Effect of artificial illumination from Light-Emitting Diodes on the growth of pomegranate seedlings. MSc Thesis, Aristotle University of Thessaloniki, 22 p.
<http://ikee.lib.auth.gr/record/280479?ln=el>

PEER-REVIEWED INTERNATIONAL JOURNALS

- A1. Bantis F, Ouzounis T, Radoglou K. 2016.** Artificial LED lighting enhances growth characteristics and total phenolic content of *Ocimum basilicum*, but variably affects transplant success. **Scientia Horticulturae**, 198:277-283, doi:10.1016/j.scienta.2015.11.014
- A2. Bantis F, Radoglou K. 2017.** Morphology, development and transplant potential of *Prunus avium* and *Cornus sanguinea* seedlings growing under different LED lights. **Turkish Journal of Biology**, 41: 314-321, doi:10.3906/biy-1607-19
- A3. Bantis F, Smirnakou S, Ouzounis T, Koukounaras A, Ntagkas N, Radoglou K. 2018.** Current status and recent achievements in the field of horticulture with the use of light-emitting diodes (LEDs). **Scientia Horticulturae**, 235:437-451, doi:10.1016/j.scienta.2018.02.058
- A4. Bantis F, Karamanoli K, Ainalidou A, Radoglou K, Konstantinidou H-I. 2018.** Light emitting diodes (LEDs) affect morphological, physiological and phytochemical characteristics of pomegranate seedlings. **Scientia Horticulturae**, 234:267-274, doi:10.1016/j.scienta.2018.02.065
- A5. Bantis F, Radoglou K, Brüggemann W. 2018.** Differential ecophysiological responses to seasonal drought of three co-existing oak species in northern Greece. **Plant Biosystems**, 1-7, doi:10.1080/11263504.2018.1492990
- A6. Bantis F, Koukounaras A, Siomos A, Radoglou K, Dangitsis C. 2019.** Optimal LED wavelength composition for the production of high quality watermelon and interspecific squash seedlings used for grafting. **Agronomy**, 9, 870, doi:10.3390/agronomy9120870
- A7. Bantis F, Radoglou K. 2019.** Testing the potential of LEDs to enhance growth and quality characteristics of *Salvia fruticosa*. **Horticultural Science**, 46: 98-106, doi:10.17221/206/2017-HORTSCI
- A8. Bantis F, Koukounaras A, Siomos A, Menexes G, Dangitsis C, Kintzonidis D. 2019.** Assessing quantitative criteria for characterization of quality categories of grafted watermelon seedlings. **Horticulturae**, 5, 16, doi:10.3390/horticulturae5010016
- A9. Bantis F, Fotelli M, Ilić ZS, Koukounaras A. 2020.** Physiological and phytochemical responses of spinach baby leaves grown in a PFAL system with LEDs and saline nutrient solution. **Agriculture**, 10, 574, doi:10.3390/agriculture10110574
- A10. Bantis F, Koukounaras A, Siomos A, Dangitsis C. 2020.** Impact of scion and rootstock seedling quality selection on the vigor of watermelon–interspecific squash grafted seedlings. **Agriculture**, 10, 326, doi:10.3390/agriculture10080326
- A11. Bantis F, Koukounaras A, Siomos A, Fotelli M, Kintzonidis D. 2020.** Bichromatic red and blue LEDs during healing enhance the vegetative growth and quality of grafted watermelon seedlings. **Scientia Horticulturae**, 261:109000, doi: 10.1016/j.scienta.2019.109000
- A12. Koukounaras A, Bantis F, Karatolos N, Melissas C, Vezyroglou A. 2020.** Influence of Pre-Harvest Factors on Postharvest Quality of Fresh-Cut and Baby Leafy Vegetables. **Agronomy**, 10, 172, doi:10.3390/agronomy10020172
- A13. Bantis F, Fruchtenicht E, Graap J, Stroll S, Reininger N, Schafer L, Pollastrini M, Holland V, Bussotti F, Radoglou K, Brüggemann W. 2020.** The JIP-test as a tool for forestry in times of climate change. **Photosynthetica**, 58:224-236, doi:10.32615/ps.2019.173
- A14. Karnoutsos P, Karagiovanidis M, Bantis F, Chatzistathis, Koukounaras A, Ntinis GK. 2020.** Controlled root-zone temperature effect on baby leaf vegetables yield and quality in a floating system under mild and extreme weather conditions. **Journal of the Science of Food and Agriculture**, 101, 3933-3941, doi: 10.1002/jsfa.11033

- A15.** Meléndez-Martínez AJ, Mandić AI, **Bantis F**, Böhm V, Borge GIA, Brnčić M, Bysted A, Pilar Cano M, Graça Dias M, Elgersma A, Fikselová M, García-Alonso J, Giuffrida D, Gonçalves VSS, Hornero-Méndez D, Kljak K, Lavelli V, Manganaris GA, Mapelli-Brahm P, Marounek M, Olmedilla-Alonso B, Periago-Castón MJ, Pinteá A, Sheehan JJ, Šaponjac VT, Valšíková-Frey M, Van Meulebroek L, O'Brien N. 2020. A comprehensive review on carotenoids in foods and feeds: *status quo*, applications, patents and research needs. **Critical Reviews in Food Science and Nutrition**, 62, 1999-2049, doi:10.1080/10408398.2020.1867959
- A16.** **Bantis F**, Dangitsis C, Koukounaras A. 2021. Influence of light spectra from LEDs and scion × rootstock genotype combinations on the quality of grafted watermelon seedlings. **Plants**, 10, 353 doi: 10.3390/plants10020353
- A17.** **Bantis F**, Graap J, Fruchtenicht E, Bussotti F, Radoglou K, Bruggemann W. 2021. Field Performances of Mediterranean Oaks in Replicate Common Gardens for Future Reforestation under Climate Change in Central and Southern Europe: First Results from a Four-Year Study. **Forests**, 12, 678, doi: 10.3390/f12060678
- A18.** **Bantis F**, Kaponas C, Charalambous C, Koukounaras A. 2021. Strategic successive harvesting of rocket and spinach baby leaf leaves vegetables enhanced their quality and production efficiency. **Agriculture**, 11, 465, doi:10.3390/agriculture11050465
- A19.** **Bantis F**, Tsiolas G, Mouchtaropoulou E, Tsompanoglou I, Polidros A N, Argiriou A, Koukounaras A. 2021. Comparative transcriptome analysis in homo- and hetero- grafted cucurbit seedlings. **Frontiers in Plant Science**, 12, 691069, doi: 10.3389/fpls.2021.691069
- A20.** **Bantis F**, Panteris E, Dangitsis C, Carrera E, Koukounaras A. 2021. Blue light promotes hormonal induced vascular reconnection, while red light boosts the physiological response and quality of grafted watermelon seedlings. **Scientific Reports**, 11, 21754, doi: 10.1038/s41598-021-01158-w
- A21.** **Bantis F**. 2021. Light spectrum differentially affects the yield and phytochemical content of microgreen vegetables in a plant factory. **Plants**, 10, 2182, doi: 10.3390/plants10102182
- A22.** Ntinis GK, **Bantis F**, Koukounaras A, Kougias P. 2021. Exploitation of liquid digestate as sole nutrient source for floating hydroponic cultivation of baby lettuce in greenhouse. **Energies**, 14, 7199, doi: 10.3390/en14217199
- A23.** **Bantis F**, Dangitsis C, Siomos A, Koukounaras A. 2022. Light spectrum variably affects the acclimatization of grafted watermelon seedlings while maintaining fruit quality. **Horticulturae**, 8, 10, doi: 10.3390/horticulturae8010010
- A24.** Melissas C, **Bantis F**, Dangitsis C, Kostas S, Koukounaras A. 2022. Proposed light wavelengths during healing of grafted tomato seedlings enhance their adaptation to transplant shock. **Agriculture**, 12, 797, doi: 10.3390/agriculture12060797
- A25.** Papoui E, **Bantis F**, Kapoulas N, Ipsilantis I, Koukounaras A. 2022. A sustainable intercropping system for organically produced lettuce and green onion with the use of arbuscular mycorrhizal inocula. **Horticulturae**, 8, 466, doi: 10.3390/horticulturae8050466
- A26.** Holland V, Reininger N, **Bantis F**, Bruggemann W, Radoglou K, Fotelli MN. 2022. Diurnal photosynthetic performance of two oak species from two provenances in a Mediterranean and a central European common garden. **Photosynthetica**, 60, 326-336, doi: 10.32615/ps.2022.023
- A27.** **Bantis F**, Gkatzamani A, Dangitsis C, Koukounaras A. 2022. A light recipe including far-red wavelength during healing of grafted watermelon seedlings enhances the floral development and yield earliness. **Agriculture**, 12, 982, doi: 10.3390/agriculture12070982

- A28. Bantis F**, Koukounaras A. 2022. *Ascophyllum nodosum* and Silicon-Based Biostimulants Differentially Affect the Physiology and Growth of Watermelon Transplants under Abiotic Stress Factors: The Case of Drought. **Horticulturae**, 8, 1177, doi: 10.3390/horticulturae8121177
- A29. Bantis F**, Koukounaras A. 2023. *Ascophyllum nodosum* and Silicon-Based Biostimulants Differentially Affect the Physiology and Growth of Watermelon Transplants under Abiotic Stress Factors: The Case of Salinity. **Plants**, 12, 433, doi: 10.3390/plants12030433
- A30.** Tsaballa A, Xanthopoulou A, Sperdoui I, **Bantis F**, Boutsika A, Chatzigeorgiou I, Tsaliki E, Koukounaras A, Ntinis G, Ganopoulos I. 2023. LED omics in Rocket Salad (*Diplotaxis tenuifolia*): Comparative Analysis in Different Light-Emitting Diode (LED) Spectrum and Energy Consumption. **Plants**, 12, 1203, doi: 10.3390/plants12061203
- A31.** Platis DP, Papoui E, **Bantis F**, Katsiotis A, Koukounaras A, Mamolos AP, Mattas K. 2023. Underutilized vegetable crops in the Mediterranean region: a literature review of their requirements and the ecosystem services provided. **Sustainability**, 15, 4921, doi: 10.3390/su15064921
- A32.** Mainos D, **Bantis F**, Ntinis GK, Koukounaras A. 2023. Yield, Quality, and Resources Use Efficiency of Wild Rocket Baby Leaves Grown under Different Controlled Environment Systems and Various Growing Seasons. **Horticulturae**, 9, 661, doi: 10.3390/horticulturae9060661
- A33. Bantis F**, Koukounaras A. 2023. The Use of High-Quality Watermelon Seedlings Is Prerequisite to Limit the Transplanting Shock and Achieve Yield Earliness. **Horticulturae**, 9, 943, doi: 10.3390/horticulturae9080943
- A34.** Koukounaras A, Boursianis A, Kostas S, Theopoulos A, **Bantis F**, Samaras T. Pre-Sowing Static Magnetic Field Treatment of Vegetable Seeds and Its Effect on Germination and Young Seedlings Development. **Seeds** 2023, 2, 394–405, doi: 10.3390/seeds2040030
- A35. Bantis F**, Chatzigeorgiou I, Sismanis M, Ntinis GK, Koukounaras A. 2024. Vegetable Production in PFALs: Control of Micro-Environmental Factors, Principal Components and Automated Systems. **Agriculture**, 14, 642, doi: 10.3390/agriculture14040642
- A36. Bantis F**, Koukounaras A. 2024. Microgreen vegetables' production can be optimized by combining the substrate and nutrient solution in a PFAL. **Scientia Horticulturae**, 333, 113277, doi: 10.1016/j.scienta.2024.113277
- A37.** Florou E, Politi A, Andreadaki E, Vrakas K, Spaliara H, Neli A, Koulopoulou CE, Koulopoulos A, **Bantis F**, Zervoudakis G. 2023. When Light Is Crucial, but Wind Is Rather Trivial: A Basil Case Study. **Plants**, 13, 3221, doi: 10.3390/plants13223221
- A38. Bantis F**, Simos N, Koukounaras A. 2025. Plant factory in a restaurant: light quality effects on the development, physiology, and quality of three baby-leaf vegetables. **Plants**, 14, 153, doi: 10.3390/plants14020153

FULL PAPERS IN PEER-REVIEWED INTERNATIONAL CONFERENCE PROCEEDINGS

- B1. Bantis F**, Koukounaras A, Siomos A, Menexes G, Dangitsis C, Koufakis T. 2020. Quantitative criteria of watermelon and squash seedlings used as scion and rootstock during grafting. **Acta Horticulturae**, 1294:155-161, doi: 10.17660/ActaHortic. 2020.1294.20
- B2. Bantis F**, Koukounaras A, Siomos A, Radoglou K, Dangitsis C. 2020. Evaluation of the quality of watermelon and squash seedlings produced indoors. **Acta Horticulturae**, 1296:667-674, doi: 10.17660/ActaHortic.2020.1296.85

- B3. Bantis F**, Koukounaras A, Siomos A, Dangitsis C, Koufakis T, Kintzonidis D. 2021. Supplemental lighting enhances quality of grafted watermelon seedlings. **Acta Horticulturae**, 1302:111-116, doi: 10.17660/ActaHortic.2021.1302.15
- B4.** Koukounaras A, **Bantis F**, Siomos A, Dangitsis C, Koufakis T, Kintzonidis D. 2021. Research and application of LED lighting in the healing stage of grafted vegetable seedlings. **Acta Horticulturae**, 1302:79-86, doi: 10.17660/ActaHortic.2021.1302.11
- B5. Bantis F**, Karnoutsos P, Karagiovanidis M, Ntinis GK, Koukounaras A. 2021. The impact of heated nutrient solution on yield and chemical composition of hydroponically grown 'baby' leaf vegetable. **Acta Horticulturae**, 1321, doi: 10.17660/ActaHortic.2021.1321.22
- B6. Bantis F**, Koukounaras A, Siomos A, Dangitsis C, Kintzonidis D. 2021. Morphological characteristics and quality of grafted watermelon seedlings healing under different light qualities. **Acta Horticulturae**, 1337, doi: 10.17660/ActaHortic.2022.1337.46
- B7. Bantis F**, Koukounaras A, Siomos A, Radoglou K, Dangitsis C, Koufakis T. 2021. LED lighting can potentially reduce the growth cycle of watermelon seedlings to-be-grafted. **Acta Horticulturae**, 1337, doi: 10.17660/ActaHortic.2022.1337.55
- B8.** Koukounaras A, **Bantis F**, Dangitsis C. 2023. Exploring the role of light-emitting diodes during the healing of grafted vegetable seedlings. **Acta Horticulturae**, 1365, doi: 10.17660/ActaHortic.2023.1365.12
- B9. Bantis F**, Dangitsis C, Koukounaras A. Effect of watermelon genotype on effectiveness of optimum LED lighting applied into the healing chamber for production of grafted seedlings. **Acta Horticulturae**, full-text submitted

FULL PAPERS IN PEER-REVIEWED GREEK NATIONAL CONFERENCE PROCEEDINGS

- C1. Bantis F**, Koukounaras A, Siomos AS, Radoglou K. 2017. Effect of radiation spectrum using LED lamps on the growth of tomato and cucumber seedlings. Proceedings of the 28th Panhellenic Scientific Conference of the Hellenic Society of Horticultural Science, 16-20 October 2017, Thessaloniki, Greece
- C2.** Liantas G, Chatzigeorgiou I, **Bantis F**, Karagiovanidis M, Koukounaras A, Ntinis G. Evaluation of hydroponic cultivation of baby lettuce leaves in a greenhouse with energy supply from an autonomous photovoltaic system or electric grid. 12th Panhellenic Conference of the Society of Agricultural Engineers of Greece, pp. 66-70
- C3.** Chatzigeorgiou I, Liantas G, Karnoutsos P, **Bantis F**, Koukounaras A, Ntinis G. 2021. Hydroponic rocket cultivation: the effect of nutrient solution cooling on the quantity and quality of production. 12th Conference of the Society of Agricultural Engineers of Greece, pp. 87-91

PRESENTATIONS IN INTERNATIONAL CONFERENCES

- D1. Bantis F**, Radoglou K. 2014. Light-emitting diodes use for *Ocimum basilicum* L. cultivation. In book of Abstract of the 11th International Phytotechnologies Conference, Eds. Kalogerakis N., Manios T., 30 September to 3 October 2014, Heraklion Crete, Greece, pp. 374
- D2. Bantis F**, Radoglou K. 2015. Innovation in seedling production of *Prunus avium* L. by using LED lights. In book of Abstract of the International Conference Reforestation Challenges, Eds. Ivetic V.,

- Ćirković-Mitrović T., 3-6 June 2015, Belgrade, Serbia, pp. 25 <https://www.reforestationchallenges.org/Files/Other/Reforestation%20Challenges%20BoA.pdf>
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- D8.** Koukounaras A, **Bantis F**, Papoui E, Karatolos N. 2022. Recent approaches to maintain postharvest quality using biostimulants. 1st International Electronic Conference on Horticulturae, 16-30 April 2022
- D9.** Platis D, **Bantis F**, Papoui E, Koukounaras A, Mamolos A. 2022. Ecosystem services and dis-services related to endemic species cultivation in Crete. 182nd EAAE Seminar on “Sustainability via biodiverse agri-food value chains”, 14-15 September 2022, Chania, Crete, Greece
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- D12. Bantis F**, Simos N, Koukounaras A. 2024. Vertical farming in urban agriculture: production of kale baby leaves in a restaurant. 3rd International Workshop on Vertical Farming (*VertiFarm2024*), 16-19 January 2024, Bologna, Italy
- D13.** Koukounaras A, Nikoloudis K, Papoui E, Gkatzamani A, **Bantis F**. 2024. Assessment of irrigation of greenhouse tomato for optimal agronomic performance based on solar radiation. X International Symposium on Light in Horticulture, 19-22 May 2024, Seoul, Republic of Korea.
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PRESENTATIONS IN GREEK NATIONAL CONFERENCES

- E1. Bantis F**, Radoglou K, Karamanoli A, Konstantinidou E-I A. 2015. Effect of artificial illumination of light-emitting diodes on the growth of pomegranate seedlings. Book of abstracts of the 14th Scientific Conference of the Hellenic Botanical Society, 8-11 October 2015, Patras, Greece, p. 54-55
- E2. Bantis F**, Koukounaras A, Siomos AS, Fotelli M, Dangitsis C, Kintzonidis D, Koufakis T. 2019. Use of LEDs during the healing of grafted watermelon seedlings. Book of abstracts of the 29th Scientific Conference of the Hellenic Society of Horticultural Science, 15-18 October 2019, Patras, Greece, p. 45
- E3. Bantis F**, Koukounaras A, Siomos AS, Menexes G, Melissas C, Mainos D, Dangitsis C, Kintzonidis D, Koufakis T. 2019. Non-destructive methodologies for objective quality assessment of grafted watermelon seedlings. Book of abstracts of the 29th Scientific Conference of the Hellenic Society of Horticultural Science, 15-18 October 2019, Patras, Greece, p.90
- E4.** Aktsoylou DC, **Bantis F**, Tsouvaltzi P, Koukounaras A, Koufakis T, Siomos AS. 2019. Hydroponic tomato cultivation in the greenhouse in relation to the growing medium and the planting system. Book of abstracts of the 29th Scientific Conference of the Hellenic Society of Horticultural Science, 15-18 October 2019, Patras, Greece, p.26
- E5.** Tsampalla A, Xanthopoulou A, Sperdoui I, Tsaliki E, Mpoutsika A, Chatzigeorgiou I, **Bantis F**, Koukounaras A, Ntinis GK, Ganopoulos I. LED-omics: Comparative study of gene response under culture conditions of different light wavelengths in rocket. Book of abstracts of the 30th Scientific Conference of the Hellenic Society of Horticultural Science, 9-13 May 2022, Athens, Greece, p. 214
- E6.** Chatzigeorgiou I, Liantas G, **Bantis F**, Koukounaras A, Ntinis GK. Sustainable cultivation of rocket in a greenhouse with floating system and year-round temperature regulation of the root system. Book of abstracts of the 30th Scientific Conference of the Hellenic Society of Horticultural Science, 9-13 May 2022, Athens, Greece, p. 216
- E7. Bantis F**, Koukounaras A, Dangitsis C. The role of light spectrum in the production of grafted watermelon seedlings and young spinach leaves. Book of abstracts of the 30th Scientific Conference of the Hellenic Society of Horticultural Science, 9-13 May 2022, Athens, Greece, p. 217

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- E9.** Kokolakis E, **Bantis F**, Papoui E, Koukounaras A. The use of biostimulant in lettuce to improve plant efficiency and response to water stress conditions. Book of abstracts of the 30th Scientific Conference of the Hellenic Society of Horticultural Science, 9-13 May 2022, Athens, Greece, p. 245
- E10.** Gkatzamani A, **Bantis F**, Koukounaras A. The effect of the quality of grafted watermelon seedlings on plant growth and development immediately after establishment. Book of abstracts of the 30th Scientific Conference of the Hellenic Society of Horticultural Science, 9-13 May 2022, Athens, Greece, p. 262
- E11.** **Bantis F**, Simos N, Koukounaras A. PFAL systems in urban vegetable production: The case of a restaurant in the centre of Thessaloniki. Book of abstracts of the 31st Scientific Conference of the Hellenic Society of Horticultural Science, 29 October – 2 November 2023, Irakleio, Greece.
- E12.** **Bantis F**, Papoui E, Lamprinos N, Koukounaras A. Climate-smart agriculture and educational resources for producers. Book of abstracts of the 31st Scientific Conference of the Hellenic Society of Horticultural Science, 29 October – 2 November 2023, Irakleio, Greece.
- E13.** Papoui E, Gkatzamani A, **Bantis F**, Koukounaras A. The effect of algal extracts as biostimulants on the yield and quality of rocket leaves. Book of abstracts of the 31st Scientific Conference of the Hellenic Society of Horticultural Science, 29 October – 2 November 2023, Irakleio, Greece.

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- F1.** **Bantis F**. 2016. Light affects carotenoid production and shelf life. COST Action CA:15136 Newsletter 1st issue, pp. 4.
https://www.eurocaroten.eu/eurocaroten//sites/default/files/newsletter_n1.pdf
- F2.** Koukounaras A, **Bantis F**, Papoui E. 2022. Use of biostimulants in hydroponic culture. Website biostimulant.com. <https://www.biostimulant.com/use-of-biostimulants-in-hydroponic-culture/>
- F3.** **Bantis F**, Dangitsis C, Kintzonidis D, Siomos A, Koufakis T, Koukounaras A. 2022. Use of LEDs for the production of grafted watermelon seedlings. Website of Agris SA – Advancing Horticulture. <https://www.agrishorticulture.com/current-affairs/hrisi-lamptiron-led-gia-tin-paragogi-emboliasmenon-sporofyton-karpoyziy>

EDITORIALS

- G1.** **Bantis F**, Koukounaras, A. Impact of Light on Horticultural Crops. **Agriculture** 2023, 13, 828. doi: 10.3390/agriculture13040828. <https://www.mdpi.com/2077-0472/13/4/828>

RECOGNITION

PATENT

Within the framework of the project "LEDWAR - Application of artificial lighting with LED lamps to reduce the cost of production of high quality grafted watermelon seedlings", a **Patent was awarded by the Industrial Property Organization (IPO) entitled "Method of production of improved grafted seedlings, especially watermelon seedlings, using lighting means"**. File No. 20220100434/ 24-5-2022.

Beneficiaries: Aristotle University of Thessaloniki ELKE (50%) and Agris S.A. (50%)

Inventors: 1. Koukounaras Athanasios, **Bantis Filippos**, Siomos Anastasios, Karakolis Georgios, Koufakis Theologos, Kintzonidis Damianos, Dangitsis Christodoulos

REFERENCES

As of 2/1/2025, of the 46 publications listed in Scopus, there were **808 citations, with h-index = 11**.

INNOVATION AWARD

Award entitled «SUAVE - Stimulating SMEs in new Urban Agriculture Value Chain for sustainable growth in Europe» in innovation category. The prize was awarded by the European Cluster Collaboration Platform funded by the European Union in the framework of my collaboration with Maestranza LP.

EDITORIAL BOARD OF SCIENTIFIC JOURNALS

- Guest editor of the international scientific journal "Plants" for the Special Issue on "Biotic and Abiotic Environmental Effects on Physiology of Horticultural Plants"
- Guest editor of the international scientific journal "Agriculture" for the Special Issue on "Impact of Light on Horticultural Crops - 2nd Edition"
(https://www.mdpi.com/journal/agriculture/special_issues/YSJK77684F).
- Guest editor of the international scientific journal "Agriculture" for the Special Issue on 'Impact of Light on Horticultural Crops'
(https://www.mdpi.com/journal/agriculture/special_issues/light_horticulture_crops).
The Special Issue consists of 11 papers (Publication H1).
- Review Editor of the international scientific journal "Frontiers in Horticulture"
(<https://www.frontiersin.org/journals/horticulture>).
- Member of the Topic Advisory Panel (Topic Editor) of the international journal "Sustainability". The journal is listed in the Science Citation Index and other international databases for horticultural sciences (<https://www.mdpi.com/journal/sustainability>).

REVIEWER FOR SCIENTIFIC JOURNALS

Reviewer for the following international scientific journals:

1. Scientia Horticulturae <https://www.journals.elsevier.com/scientia-horticulturae>
2. Journal of Plant Growth Regulation <https://www.springer.com/journal/344>
3. Horticulturae <https://www.mdpi.com/journal/horticulturae>
4. Plants <https://www.mdpi.com/journal/plants>
5. Agronomy <https://www.mdpi.com/journal/agronomy>
6. Sustainability <https://www.mdpi.com/journal/sustainability>
7. Frontiers in Plant Science <https://www.frontiersin.org/journals/plant-science>
8. Applied Sciences <https://www.mdpi.com/journal/applsci>
9. GigaScience <https://academic.oup.com/gigascience>
10. Scandinavian Journal of Forest Research <https://www.tandfonline.com/toc/sfor20/current>
11. International Journal of Molecular Sciences <https://www.mdpi.com/journal/ijms>
12. Agriculture <https://www.mdpi.com/journal/agriculture>
13. Seeds <https://www.mdpi.com/journal/seeds>

INTERNATIONAL ACADEMIC VISITS

- **17/11/2014 – 13/12/2014**
Scientific visit to Högskolan Dalarna University, Forestry department, Sweden. This visit was funded by the research project REGEN-FOREST.
- **8/11/2015 - 28/11/2015**
Following an invitation from the department, scientific visit to Högskolan Dalarna University, Forestry department, Sweden. This visit was funded by the research project ZEPHYR.
- **2018 - 2019**
Two visits to the Institut für Ökologie, Evolution und Diversität, Goethe Universität Frankfurt Germany in the framework of the research project "FUTUREOAKS_IKYDA: Selection and implementation of oak provenances for future climate scenarios in Greece and Germany".

PARTICIPATION IN CHAMBERS AND SCIENTIFIC SOCIETIES

- Geotechnical Chamber of Greece (GEOTEE)
- Hellenic Society of Horticultural Science
- International Society for Horticultural Science (ISHS)