

PERSONAL INFORMATION

Alba Nicoletta Mininni



Affiliation
 University of Basilicata
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Sex Female | Date of birth 10/04/1982 | Nationality Italian

Enterprise	University	EPR
☐ Management Level	☒ Researcher RTDB	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator

WORK EXPERIENCE

From 1st July 2022 to today

Researcher RTDB for the scientific disciplinary sector AGR/03 (Arboriculture and Fruitculture) at DiCEM, University of Basilicata (Unibas)

From 1st September 2018 to 30 June 2022

Researcher RTDA for the scientific disciplinary sector AGR/03 (Arboriculture and Fruitculture) at DiCEM, University of Basilicata (Unibas)

From February to March 2020

Research activity at Fitotechniki, Arta (Greece) in the frame of the project VirFree H2020-MSCA-RISE-2016, in collaboration with the Aristotle University of Thessaloniki with a Marie S. Curie RISE H2020 Agreement

From 11th October 2012 to 28th May 2018

Research fellow for the scientific disciplinary sector AGR/03 (Arboriculture and Fruitculture) at DiCEM, Unibas

From January to May 2009

Research activity at Molecular Biology Laboratory C.R.E.S.Co.M.A. (Centro di Ricerca di Eccellenza per la Sperimentazione e definizione di nuovi sistemi analitici per il Controllo di Matrici Ambientali ed Alimentari) (Nautilus, Vibo Valentia) in collaboration with University of Padua.

EDUCATION AND TRAINING

22 September 2011

PhD in "Veterinary Science and Food Safety" (EQF 8), University of Padua

2007-2008

Scholarship holder in Food Biotechnology, UNIPD

Academic year 2005-2006

Degree in Food Biotechnology (110/110 cum laude) (EQF 7), University of Padua

WORK ACTIVITIES

Editorial activity

2024-2025 Guest Associate Editor in the topic: Emerging Contaminants in Water-Soil-Plant Systems in Frontiers in Plant Science

2022-2023 Guest Associate Editor in topic: "Emerging Approaches for Enhancing Nutritional Quality of Berries" in Frontiers in Plant Science

2022 Guest Editor of the Special Issue of the Journal Agronomy "Applications of Soil Microorganisms for Sustainable Crop Production"

2021 Co-Editor of the volume of the ISHS series Acta Horticulturae – IX International Symposium on Irrigation of Horticultural Crops

2020 – till now Associate Editor for the CABI – Springer Nature - Agriculture and Bioscience Journal

2020 - Guest Editor of the Special Issue of the Journal Sustainability: "Wastewater reuse for irrigation of rural and urban ecosystem: applications and future perspectives"

2019 – Member of Editorial Board of International Journal of Plant Biology

Invited presentations

Speaker at the National conference The GreenLink "Affrontare la desertificazione nel Mediterraneo col Cocoon", Rome 23 October 2018 presenting the results of the LIFE 14/CCA/GR/000389 AgroClimaWater

Courses Teaching activity of Ornamental Arboriculture (6 CFU) in Bachelor degree in "Paesaggio, Ambiente e Verde Urbano"

Teaching activity of "Greening in urban areas" of Architecture (6 CFU) in Course Degree in Architecture
Teaching activity at Lab V – Architecture and City – "The role of the green area in urban regeneration" (3 CFU) in cds Architecture

Projects RU – Responsible of Research Unit

- 2023-2025 R.U. for DAFE of PRIN2022 KIWINNER "Climate change-enhanced kiwifruit physiological decline: Integrated solutions to recover plant and soil functions"
- 2022-2025 R.U. for DiCEM of UE HORIZON 2020 - PRIMA - 2111 - Call 2021 Section 1 Farming IA FARM4CLIMATE "Smart governance and operational models for agroecological carbon farming"
- 2019-2022 R.U. for DiCEM of H2020 VirFree Project VirFree H2020-MSCA-RISE-2016-"Virus free fruit nurseries"
- 2020-2023 R.U. for DiCEM of Rural Development Programmes Basilicata 2014-2020, 16.2: Nutri.Fe "Sustainability of fruit agroecosystems: soil fertility and nutrition". PSR 2014-2020 Basilicata
- 2019-2021 R.U. for DiCEM of LIFE14 AGROCLIMAWATER CCA/GR/000389 "Promoting water efficiency and supporting the shift towards a climate resilient agriculture in Mediterranean countries".

Publications

Total number of publications in peer-review journals: 54

Total number of citations: 674, H index: 13 (source: Scopus, June 2025)

Some relevant papers:

Calabritto M., **Mininni A.N.**, De Pauw, D. J.W. Green S., Dichio B., Steppe K., Combining plant-based sensing and mechanistic modelling to quantify hydraulic resistance and capacitance for real-time irrigation in Mediterranean yellow-fleshed kiwifruit orchards, *AGRICULTURAL WATER MANAGEMENT*, Vol. 316, (2025), 109607, <https://doi.org/10.1016/j.agwat.2025.109607>.

Di Biase R., Calabritto M., **Mininni A.N.***, Montanaro G., Dichio B. (2025) *Microtensiometer-based trunk water potential as a plant water status indicator in kiwifruit under different soil water availability*. *IRRIGATION SCIENCE*. <https://doi.org/10.1007/s00271-025-01020-1>

Calabritto M., **Mininni A.N.***, Di Biase R., Petrozza A., Summerer S., Cellini F. and Dichio B. (2025) *Physiological and image-based phenotyping assessment of waterlogging responses of three kiwifruit rootstocks and grafting combinations*. *FRONTIERS IN PLANT SCIENCE* 16:1499432. doi: 10.3389/fpls.2025.1499432

Addesso R., Araniti F., Bloise A, **Mininni A. N.***, Dichio B., López-González D., Elshafie H. S., Ellerbrock R.H, Schnee L. S., Filser J., Sileo D., Sofo A. (2025) *Soil organic matter quality in an olive orchard differently managed for 21 years: Insights into its distribution through soil aggregates and depth*, *AGRICULTURE, ECOSYSTEMS & ENVIRONMENT*, Volume 380,2025,109388,ISSN 0167-8809, <https://doi.org/10.1016/j.agee.2024.109388>

Mininni A.N.*, Pietrafesa A., Calabritto M., Di Biase R., Brunetti G., De Mastro F., Murgolo S., De Ceglie C., Salerno C. and Dichio B. (2024) *Uptake and translocation of pharmaceutically active compounds by olive tree (Olea europaea L.) irrigated with treated municipal wastewater*. *FRONTIERS IN PLANT SCIENCE* 15:1382595. doi: 10.3389/fpls.2024.1382595

Calabritto M., **Mininni A.N.***, Di Biase R., Pietrafesa A. and Dichio B. (2024) *Spatio-temporal dynamics of root water uptake and identification of soil moisture thresholds for precision irrigation in a Mediterranean yellow-fleshed kiwifruit orchard*. *FRONTIERS IN PLANT SCIENCE* 15:1472093. doi: 10.3389/fpls.2024.1472093

Sofo A., Dichio B., Elshafie H.S., Camele I., Calabritto M., Tomasi I., Mastroleo M., Xylogiannis E., D'Ippolito I., & **Mininni A.N.** (2024). *Enhancing soil properties through sustainable agronomic practices reduced the occurrence of kiwifruit vine decline syndrome*. *SOIL USE AND MANAGEMENT*, 40, e13052. <https://doi.org/10.1111/sum.13052>

Brunetti, G., Traversa, A., De Mastro, F., Dichio B., Mottola F., **Mininni A. N.**, Nigro P., Coccozza C. (2023). *Evaluation of the QuEChERS extraction approach for the analysis of active compounds of pharmaceuticals in olive tree portions*. *CHEM. BIOL. TECHNOL. AGRIC.* 10, 80 <https://doi.org/10.1186/s40538-023-00454-z>

Mininni A. N., Tuzio A., Brugnoli E., Dichio B., Sofo A. 2022. Carbon isotope discrimination and water use efficiency in interspecific *Prunus* hybrids subjected to drought stress. *Plant Physiology and Biochemistry* Vol. 175, 15 March 2022, Pages 33-43

Fausto, C., Araniti, F., **Mininni, A.N.** et al. Differential olive grove management regulates the levels of primary metabolites in xylem sap. *Plant Soil* 460, 281–296 (2021) <https://doi.org/10.1007/s11104-020-04800-0>

Sofo A., **Mininni A. N.**, Ricciuti P. 2020 Comparing the effects of soil fauna on litter decomposition and organic matter turnover in sustainably and conventionally managed olive orchards, *Geoderma*, Volume 372, 2020, 114393, ISSN 0016 7061, <https://doi.org/10.1016/j.geoderma.2020.114393>.

Mininni, A. N., Montanaro, G., Dichio, B., Fausto, C., Xiloyannis, C. (2018). Multifunctional peri-urban agriculture: Some ecosystem services of a sustainable olive grove. *ActaHORT.*, vol. 1215, p. 21-25, ISSN: 0567-7572, doi:10.17660/ActaHortic.2018.1215.3

Sofo A, **Mininni AN**, Fausto C, Scagliola M, Crecchio C, Xiloyannis C, Dichio B (2019). Evaluation of the possible persistence of potential human pathogenic bacteria in olive orchards irrigated with treated urban wastewater. *SCIENCE OF THE TOTAL ENVIRONMENT*, vol. 658, p. 763-767, ISSN: 0048-9697, doi:10.1016/j.scitotenv.2018.12.264

Ippolito, A., Macaione, I., Rizzi, C., Montanaro, G., **Mininni, A. N.**, Dichio, B. (2018). A preliminary assessment of green areas of Matera city and their potential role in climate change. *ACTA HORTICULTURAE*, vol. 1215, p. 45-48, ISSN: 0567-7572, doi: 10.17660/ActaHortic.2018.1215.7

Fausto C., **Mininni A. N.**, Sofo A., Crecchio C., Scagliola M., Dichio B. & Xiloyannis C. 2018 Olive orchard microbiome: characterisation of bacterial communities in soil-plant compartments and their comparison between sustainable and conventional soil management systems, *Plant Ecology & Diversity*, 11:5-6, 597-610, DOI: 10.1080/17550874.2019.1596172

Pascasio S., Crecchio C., Scagliola M., **Mininni A. N.**, Dichio B., Xiloyannis C., Sofo A., 2018 Microbial-based soil quality indicators in irrigated and rainfed soil portions of Mediterranean olive and peach orchards under sustainable management, *Agricultural Water Management*, 195: 172-179, ISSN 0378-3774, <https://doi.org/10.1016/j.agwat.2017.10.014>.

Montanaro G., Dichio B., Lang A., **Mininni A. N.**, Xiloyannis C., 2015. Fruit calcium accumulation coupled and uncoupled from its transpiration in kiwifruit. *J. Plant Physiol.* 181: 67-74, DOI: 10.1016/j.jplph.2015.04.004

Montanaro G., Dichio B., Lang A., **Mininni A. N.**, Nuzzo V., Clearwater M. J., Xiloyannis C., 2014. Internal versus external control of calcium nutrition in kiwifruit. *J. Plant Nutr. Soil Sci.* 177: 819–830, DOI: 10.1002/jpln.201400396.

Mininni, A.N.*, Laterza, D., Tuzio, A.C., di Biase, R. and Dichio, B. (2022). *Soil water content monitoring as a tool for sustainable irrigation strategy in a kiwifruit orchard under semi-arid conditions*. *acta hortic.* 1332, 203-210 doi: 10.17660/actahortic.2022.1332.27

Mininni, A.N.*, Berloco, T, Fausto, C., Manicone, F., Dichio, B. and Xiloyannis, C. (2022). *sustainable irrigation strategy in fruit orchards: environmental impact at farm scale*. *acta hortic.* 1335, 429-436 doi: 10.17660/actahortic.2022.1335.53

Di Biase, R., Calabritto, M., Sofo, A., Reyes, F., **Mininni, A.N.**, Mastroleo, M., Xylogiannis, E. and Dichio, B. (2023). *assessment of kiwifruit physiological decline: irrigation and soil management strategy to recover from waterlogging*. *acta hortic.* 1373, 11-18 doi: 10.17660/actahortic.2023.1373.3

Mininni A.N., Pietrafesa A., De Mastro F., Casale B., Marino G., Masi S., Caniani D., Dichio B. *evaluation of contaminants of emerging concern (cecs) absorption and accumulation in plant irrigated with treated municipal wastewater: preliminary results*. (2023) *Acta Horticulturae*, (1373), pp. 171 - 177, doi: 10.17660/actahortic.2023.1373.23

Calabritto, M., Di Biase, R., **Mininni, A.N.**, Mastroleo, M., Xylogiannis, E. and Dichio, B. (2024). *kiwifruit plant physiological behavior to different levels of soil water depletion under semi-arid environmental conditions*. *acta hort.* 1409, 95-102 doi: 10.17660/actahortic.2024.1409.14

D'ippolito, I., Mang, S.M., Elshafie, H.S., Camele, I., Scillitani, G., Mastrodonato, M., Sofo, A., **Mininni, A.N.** and Xylogiannis, E. (2022). *morpho-anatomical and microbiological analysis of kiwifruit roots with kvds symptoms*. *Acta Hort.* 1332, 131-136 doi: 10.17660/actahortic.2022.1332.18

Rallo, G., Bonzi, L., Dichio, E., Di Biase, R., Massai, R., **Mininni, A.N.**, Puig-sirera, A. and Remorini, D. (2024). *Irrigatmo: no-moving parts system for feed-back and feed-forward irrigation scheduling*. *Acta Hort.* 1395, 53-60 doi: 10.17660/actahortic.2024.1395.8

Dichio B., Di Biase R., Tuzio A.C., Mastroleo M., Xylogiannis E., **Mininni A.N.** (2024). *Precision irrigation strategies applied to different irrigation systems in kiwifruit orchard in mediterranean region* *acta hort.*, 1 (1409), pp. 257 - 266, doi:10.17660/actahortic.2024.1409.34

Sofo, a., **Mininni, A.N.**, Dichio, B., Mastroleo, M. and Xylogiannis, E. (2022). *Physical structure and chemical quality of waterlogged soils in an italian kiwifruit orchard*. *Acta Hort.* 1332, 195-202 doi: 10.17660/actahortic.2022.1332.26

Solimani F., Cardellicchio A.; Dimauro G.; **Mininni A.N.**; Calabritto M.; Di Biase R., Petrozza A., Summerer S., Cellini F., Renò V. (2024) *Enhancing small object detection in the yolov8 model: a comprehensive analysis of the optimized model head adaptations*. 2024 *ieee 20th international conference on automation science and engineering (case)*, Bari, Italy, 2024, pp. 599-604, doi: 10.1109/case59546.2024.10711401.

Book chapter

Xloyannis C., Dichio B., **Mininni, A.N** (2023) *Vine Nutrition and Water Requirements of Kiwifruit In Kiwifruit: Botany, Production and Uses – Richardson A., J. Burdon, R. Ferguson* p.164-183; CABI International ISBN 978-180062091-926. DOI 10.1079/9781800620933.0011

Participation in International Network

2022- now MC member of the COST ACTION FRUITCREWS *Fruit tree Crop REsponses to Water deficit and decision support Systems applications*.

Organization of International event

2027 Co-Convener del XII International Symposium on Kiwifruit (ISHS)
2019 Symposium secretariat of the XI International Symposium on Irrigation of Horticultural crops (ISHS)

2013 Symposium secretariat of the XII International Symposium on Peach (ISHS)

Other Relevant Information

Member of the "Italian Society of Italian Horticulture"(SOI);

Member of the Italian Society of Arboriculture" (SIA);

Member of the "International Society of Horticultural Science" (ISHS).

I actively collaborate with Zespri and the Spin Off company Agreement s.r.l. in research and demonstration activities in the agricultural sector. I also collaborate with many Farmers' Organizations in innovation technology transfer and training.

Member of Scientific Committee

2024 – Member of scientific committee URGES "Urban Green Shapes" (1-2 ottobre 2024, Matera).

2020 - Member of scientific committee of the Final Congress of the LIFE AGROCLIMAWATER Project

Speaker at national and international congress

2025

Physiological and phenotypic assessment of water stress response of three kiwifruit rootstocks and scion/rootstock combinations nell'International conference Water relations and irrigation of fruit crops: from science to policy and practice. - FRUITCREWS COST Action, Nousse (Greece), 16-18 June 2025

2024

XI International Symposium on Kiwifruit: "Effects of kiwifruit rootstocks on physiological responses of grafting combinations under waterlogging stress" MontManganui, New Zealand, February 2024

III International Symposium on Greener Cities: Improving Ecosystem Services in a Climate-Changing World (GreenCities2024): "Assessment of plant species suitability for green walls in Mediterranean area" Wisley, UK, September 2024

2023

X International Symposium on Irrigation of Horticultural Crops: "*Fate of CECs in soil-plant system in olive trees irrigated with treated municipal wastewater*", Stellenbosch, South Africa January, 2023

XIV Giornate Scientifiche SOI - L'ortoflorofrutticoltura per la transizione ecologica, con una presentazione dal titolo: "*Contaminants of emerging concern (CECs) in olive plant irrigated with wastewater: uptake and distribution into plant tissues*", Torino, Giugno 2023

2022

31° International Horticultural congress: "*Evaluation of contaminants of emerging concern (CECs) absorption and accumulation in plant irrigated with treated municipal wastewater: preliminary results*" Angers, France, August 2022

Speaker in workshop

"TIL SOIL C The effect of tillage practice on soil carbon sequestration mechanisms" 11 Marzo 2025, Matera

- Gestione sostenibile della nutrizione in frutticoltura: effetti sulla qualità del suolo. 11 ottobre 2023, Matera
- Sostenibilità e qualità nei sistemi frutticoli 15 settembre 2022, Metaponto
- Regenerative agricultural practices and their climate impact in fruit orchards 12 marzo 2025, telematico
- Fertilità e microbioma del suolo, 3 dicembre 2024, Metaponto
- Punti salienti del International symposium on kiwifruit 2024 in Nuova Zelanda, 24 maggio 2024, Manta
- L'importanza della tutela degli alberi monumentali 13 settembre 2024, Matera

Matera, 14/06/2025

Dott.ssa Alba N. Mininni



According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV and application for recruiting purposes.