

**EUROPEAN
CURRICULUM VITAE
FORMAT**



PERSONAL INFORMATION

Name, Surname	PEZZAROSSA BEATRICE
Address	via Moruzzi 1, 56124 Pisa, Italy
Telephone	+39 050 6212488
Fax	+39 050 6212473
E-mail	beatrice.pezzarossa@cnr.it
Website	https://www.iret.cnr.it/en/
Nationality	Italian
Place and Date of birth	Viareggio (LU), 01/08/1959

WORK EXPERIENCE

- | | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • Dates (from – to) | 2018-present |
| • Name and address of employer | National Research Council (CNR) – Research Institute on Terrestrial Ecosystems (IRET)
via Moruzzi 1, 56124 Pisa (Italy) |
| • Dates (from – to) | 2003-2018 |
| • Name and address of employer | National Research Council (CNR) – Institute for Ecosystem Studies (ISE)
via Moruzzi 1, 56124 Pisa (Italy) |
| • Dates (from – to) | 1988-2003 |
| • Name and address of employer | National Research Council (CNR) – Soil Chemistry Institute (ICT)
via Corridoni, 56124 Pisa (Italy) |
| • Type of business or sector | Scientific research |
| • Occupation or position held | Senior Scientist |
| • Main activities and responsibilities | Scientific leader of research projects and units; participant in national and international projects.
Board Member of the PhD Council Agriculture, Food and Environment (SciAAA) (2013-present)
Member of the Scientific Committee of the Research Institute on Terrestrial Ecosystems (2018-present)
Member of the Scientific Committee of the Institute for Ecosystem Studies (2008-2018)
Member of the ‘Soil chemistry’ Commission of the Italian Society of Soil Science (2009-2012)
Member of the ‘Soil chemistry’ Commission of the Italian Society of Soil Science (2005-2008)
Chair of the Organizing and Scientific Committee of the following meetings:
2010: 3 rd National Scientific Congress ‘Soil Quality, Food and Health’ (Napoli, May 20-22);
2008: 2 nd National Scientific Congress ‘Soil Quality, Food and Health’ (Bari, October 22-24);
2007: 1 st National Scientific Congress ‘Soil Quality, Food and Health’ (Palermo, October 24-26);
2006: 7 th International Symposium on the Plant Hormone Ethylene (Pisa, June 18-22);
2006: Wildflowers: production, use, valorization (Livorno, June 6);
2005: Soil and Quality of Urban Environment (Torino, December 6-7);
2004: Soil and Cultural Heritage (Roma, November 17-18);
2004: The Perception of Science in the Western Society (Torino, December 16-17)
2003: Pollution and degradation of soils. Physical, chemical and biological aspects (Monopoli, Bari, October 16-18);
2002: Sampling and analysis of soil in contaminated sites (Napoli, November 14-16);
2002: Sampling and analysis of soil and sediments (Verbania-Pallanza, April 4-5)
Referee for the following International Journals: |

Acta Biotechnologica; Acta Physiologiae Plantarum; African Journal of Agricultural Research; Agrochimica; Applied and Environmental Soil Science; Biology and Fertility of Soils; Bioresource Technology; Chemosphere; Ciencia Rural; Desalinization; Environmental Engineering and Management Journal; Environmental Pollution; European Journal of Agronomy; European Journal of Horticultural Sciences; Food Biochemistry; Frontiers of Agriculture in China; Geochemical Exploration; Journal of Agricultural Science and Technology; Journal of Environmental Management; Journal of Environmental Radioactivity; Journal of Food; Journal of Integrative Agriculture; Journal of the Science of Food and Agriculture; Journal of Soil and Sediments; Metallomics; Nutrients; Plant Physiology and Biochemistry; Plant and Soil; Plants; Scientia Horticulturae; Science of Total Environment; Waste Management Research;

Supervisor of Master and PhD theses in Biological and Agricultural Sciences.

EDUCATION AND TRAINING

- Dates (from – to) July 1999
- Name and type of organization providing education and training Short-Term Mobility programme of CNR at the Department of Geosciences, Oregon State University, Corvallis, OR (USA)
- Principal subjects/occupational skills covered Spatial statistics applied to experiments under protected cultivation and open field
- Title of qualification awarded Visiting Research Fellow

- Dates (from – to) March 1-April 30, 1995
- Name and type of organization providing education and training CNR-NATO Grant at the Department of Vegetable Crops, University of California, Davis, CA (USA)
- Principal subjects/occupational skills covered Study of selenium in the soil-plant system
- Title of qualification awarded Visiting Research Fellow

- Dates (from – to) September 1, 1990 - April 30, 1991
- Name and type of organization providing education and training CNR-NATO Grant at the Department of Geography, University of California, Santa Barbara, CA (USA)
- Principal subjects/occupational skills covered Study of selenium absorption in horticultural crops under different sulphate salinity condition
- Title of qualification awarded Visiting Research Fellow

- Dates (from – to) 1987 (1 year)
- Name and type of organization providing education and training Italian National Research Council (CNR) at the Institute for Soil Chemistry, CNR, Pisa
- Principal subjects/occupational skills covered Soil micromorphology
- Title of qualification awarded Scholarship holder

- Dates (from – to) 1985-1987
- Name and type of organization providing education and training Scuola Superiore Sant'Anna of Pisa (Italy)
- Principal subjects/occupational skills covered Physiology of fruit crops under water stress
- Title of qualification awarded Specialization in Fruit Crops (equivalent to PhD)

- Dates (from – to) May 1-August 31, 1985
- Name and type of organization providing education and training New York State Agricultural Experiment Station, Geneva (USA) and Department of Horticultural Sciences Cornell University, Ithaca (USA)
- Principal subjects/occupational skills covered Environmental physiology of fruit crops
- Title of qualification awarded Visiting Research Fellow

- Dates (from – to) 1984
- Name and type of organization providing education and training Faculty of Agricultural Sciences, University of Pisa, Italy

- Principal subjects/occupational skills covered
- Title of qualification awarded

Master Degree in Agricultural Sciences

RESEARCH ACTIVITIES

Research sectors

Selenium in the soil-plant system: effects of selenium addition on plant growth, plant senescence, fruit ripening and post-harvest shelf life of products.
 Chemical distribution of heavy metals (HM) and organic contaminants in the soil; uptake of HM and organic pollutants by plants and their accumulation in plant tissues.
 Improvement of *Iris* spp cultivation in marginal rural areas: aptitude of soils of Tuscany to the cultivation of rhizomes; innovative technologies to increase plant production.
 Requalification and management of urban soil and anthropic areas by the use of wildflowers.
 Carbon sequestration in Mediterranean ecosystems.
 Effects of agro-industry wastewaters and residues on chemical and physical soil properties.
 Soil quality.
 Environmental physiology of fruit crops.

Recent Scientific Activities

2019-2020: scientific leader of the agreement between IRET-CNR and USL Toscana Nord Ovest within the project "Improving health services for patients with chronic kidney disease in Nicaragua".
2018-2019: leader of the project "Evaluation of quality of vegetables cultivated in oil contaminated soil after remediation", financed by ENI SpA
2013-2014: leader of the project "Climatic, pedological and cultural characterization of the areas cultivated with *Iris pallida* in Pratomagno and Chianti hills" financed by the Tuscany Region.
2011-2012: leader of the project "Innovative technologies for the propagation of *Iris pallida* in Tuscany", financed by the Tuscany Region
2010-2013: Unit leader in the project '*Innovation and qualification of products for the improvement of floriculture in Tuscany and for the requalification of anthropic areas*' (VALFLORIA), financed by Regional Agency for Development and Innovation in Agriculture and Forestry of Tuscany (Italy).
2010-2011: leader of the project "*Economic evaluation of the production of wildflowers seedlings for urban, peri-urban and derelict areas*" financed by Regional Agency for Development and Innovation in Agriculture and Forestry of Tuscany (Italy).
2009-2011: leader of the project '*Conservation and improvement of *Iris* spp rhizome cultivation in the area of Pratomagno (Tuscany)*' financed by the Regional Agency for Development and Innovation in Agriculture and Forestry of Tuscany (Italy).
2007-2009: participant in the project '*Recovery and improvement of autochthonous and naturalized heritage: productive, varietal and economical aspects connected to the innovation of products in floriculture (ReVFlor)*', financed by the Italian Ministry of Agriculture and Forestry
2006-2008: leader of the project '*Plantings of native herbaceous species for sustainably managing green areas in school of Livorno (Tuscany)*' financed by the Regional Agency for Development and Innovation in Agriculture and Forestry of Tuscany (Italy) and the Tuscany Region
2006-2008: participant in the COFIN project '*The environmental role of soils in urban areas: identification of chemical, physical and biological indicators of degradation*' financed by the Italian Ministry of Education, Universities and Research
2004-2006: participant in the COFIN project '*Minimally processed horticultural products: production and quality improvement strategies*' financed by the Italian Ministry of Education, Universities and Research
2004-2005: participant in the project '*The paradox of selenium: essential or toxic element?*' financed by the University of Padova (Italy)
2003-2005: leader of the project '*Production and strategic employment of wildflowers for the beautification and environmental regeneration of derelict, urban and peri-urban areas*' financed by Regional Agency for Development and Innovation in Agriculture and Forestry of Tuscany (Italy)
2001-2002: Unit leader in the coordinated CNR project '*Selenium uptake and translocation in hyperaccumulator plants*' (AGENZIA 2000)
2000-2003: Unit leader in the project '*Methods and diagnostic techniques for materials and environment*' financed by the Italian Ministry of Education, Universities and Research

**RECENT PUBLICATIONS-
CHAPTERS IN BOOKS AND ARTICLES
(2015-2020)**

1. Puccinelli M, Pezzarossa B, Rosellini I, Malorgio F. 2020. Production of selenium-biofortified microgreens from selenium-enriched seeds of basil. *Plants*, 9, 801; doi:10.3390/plants9060801
2. Grifoni M, Rosellini I, Angelini P, Petruzzelli G, Pezzarossa B. 2020. The effect of residual hydrocarbons in soil following oil spillages on the growth of *Zea mays* plants. *Environmental Pollution* 265 (2020) <https://doi.org/10.1016/j.envpol.2020.114950>
3. Pezzarossa B., Borghesi E., Bretzel F., Pini R., Maggini R., Malorgio F. 2020. Chemical profile of iridals from *Iris pallida* Lam. in relation to climate and soil conditions: a preliminary study. *Eur. J. Hortic. Sci.* 85(2), 100–109
4. Puccinelli M, Malorgio F, Rosellini I, Pezzarossa B. 2019. Production of selenium-biofortified microgreens from selenium-enriched seeds of basil. Short communication. *Journal of the Science of Food and Agriculture* 99 (12): 5601-5605.
5. Puccinelli M, Malorgio F, Terry LA, Tosetti R, Rosellini I, Pezzarossa B. 2019. Effect of selenium enrichment on metabolism of tomato (*Solanum lycopersicum*) fruit during post-harvest ripening. *Journal of the Science of Food and Agriculture* 99: 2463–2472 DOI:10.1002/jsfa.9455.
6. Puccinelli M., Malorgio F., Maggini R., Rosellini I., Pezzarossa B. 2019. Biofortification of *Ocimum basilicum* L. plants with selenium. Proc. III International Symposium on Horticulture in Europe – SHE2016. Chania, Crete (Greece), October 17-21, 2016. Eds.: P. Kalaitzis et al. *Acta Horticulturae* 1242, 663-670.
7. Puccinelli M., Malorgio F., Rosellini I., Pezzarossa B. 2017. Uptake and partitioning of selenium in basil (*Ocimum basilicum* L.) plants grown in hydroponics. *Scientia Horticulturae* 225, 271-276.
8. Puccinelli, M.; Malorgio, F.; Pezzarossa, B. 2017. Selenium Enrichment of Horticultural Crops. *Molecules* 22, 933.
9. Bretzel F., Vannucchi F., Romano D., Malorgio F., Benvenuti S., Pezzarossa B. 2016. Wildflowers: from conserving biodiversity to urban greening – a review. *Urban Forestry and Urban Greening*. 20, 428-436.
10. Lattanzi P., Aquilanti G., Bardelli F., Iadecola A., Rosellini I., Tassi E., Pezzarossa, B., Petruzzelli G. 2015. Spectroscopic evidence of Cr(VI) reduction in a contaminated soil by in situ treatment with whey. *Agrochimica*. Vol LVIX, Issue 3, 218-230.
11. Francesca Vannucchi F., Malorgio F., Pezzarossa B., Pini R., Bretzel F. 2015. Effects of compost and mowing on the productivity and density of a purpose-sown mixture of native herbaceous species to revegetate degraded soil in anthropized areas. *Ecological Engineering* 74, 60-67.
12. Grifoni M, Schiavon M, Pezzarossa B, Petruzzelli G, Malagoli M. 2015. Effects of phosphate and thiosulphate on arsenic accumulation in the species *Brassica juncea*. *Environmental Science and Pollution Research* 22, 4, 2423-2433.

**PERSONAL SKILLS
AND COMPETENCIES**

MOTHER TONGUE
OTHER LANGUAGES

ITALIAN

ENGLISH

- | | |
|------------------|-----------|
| • Reading skills | excellent |
| • Writing skills | excellent |
| • Verbal skills | excellent |

SPANISH

- | | |
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| • Reading skills | good |
| • Writing skills | basic |
| • Verbal skills | basic |