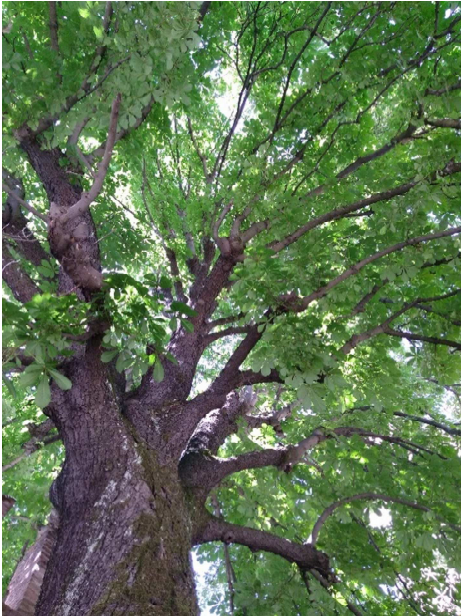


PLANT HEALTH

Our joint effort to the promotion of PLANT HEALTH concerns the design of strategies for (i) the control of plant parasites, (ii) the enhancement of new agronomic practices and plant nutrition approaches to reduce the impact on ecosystems, (iii) the selection of new varieties more resistant to (a)biotic stresses and (iv) the implementation of sustainable agricultural policies



Our research priorities

- Pathogen-free plants and propagation materials
- Innovative diagnostic techniques for welfare and protection of plants
- Enhancement of functional biodiversity for pest control and pollination
- Genes for stress resistance suitable for marker-assisted selection in cereals
- Role of root-microbiome-soil interactions on stress tolerance in crops
- Analysis of the supply chain to promote a sustainable and reduced use of pesticides
- Interdisciplinary approaches to the management of pesticides, cultivars and fertilizers for a more sustainable and climate-resilient agriculture
- Eco-friendly management of arboreal infrastructures in anthropic environments and assessment of the biomechanical/physiological tree conditions

Our expertise

- Phytopathological analyses in accredited laboratories for phytosanitary certification
- Latest generation techniques for phytopathological diagnostics
- Plant disease control using natural substances alternative to synthetic products
- Geno- and phenotypic characterization of plant health promoting bacteria
- Epidemiology of pathogens transmitted by insects and ecotoxicology of beneficial insects
- Agro-ecology and management of the agricultural landscape
- Genomics and sequencing of genes useful for resilience to climate change and plant diseases
- Geno- and pheno-typing of plants for resistance to (a)biotic stresses
- Phenotyping of crop root apparatus for (a)biotic stresses
- Metagenomic techniques applied to rhizospheric microbiota
- Analysis of public goods and environmental issues
- Design and sustainable management of urban green infrastructures





Our main projects

INTERNATIONAL

- CEREALMED – Enhancing diversity in Mediterranean cereal farming systems (PRIMA 2020-2023)
- CONSOLE – Analysis of improved agri-environmental contracts (H2020 2019-2022)
- FLAVID – “Flavescence dorée”: epidemiology in relation to host and vectors (EUPHRESKO 2017-2021)
- INNOVAR – Next generation variety testing for improved cropping on European farmland (H2020 2019-2024)
- LIFE4POLLINATORS – Involving people to protect wild bees and other pollinators in the Mediterranean (LIFE 2019-2023)
- LIFT – Analysis of low-input farming (H2020 2018-2022)
- MED-BERRY – Strategies to protect strawberry crop in the Mediterranean (PRIMA 2019-2022)
- PHYFOR – Diversity of phytoplasmas detected in European forests (EUPRESKO 2017-2023)
- ROOTY – A root ideotype toolbox to support improved wheat yields (IWYP 2018-2021)
- SHOWCASE – Functional biodiversity for agricultural activity management (H2020 2020-2025)
- TROPICSAFE – Insect-borne prokaryote-associated diseases in tropical/subtropical perennial crops (H2020 2017-2022)

NATIONAL/REGIONAL

- AMR-One Health – Monitoring of antibiotic-resistant *E. coli* (Emilia-Romagna 2020-2021)
- DIBIO – Agroecological approach to reduce extra-business inputs to organic crop protection (MIPAAF 2019-2022)
- Disease resistance genes identification to use for marker-assisted selection in durum and bread wheat (APSOV 2020-2023)
- MAC – Pear brown spot: insights on causal agents and disease control in the climate change scenario (PSR 2020-2022)
- Management of urban green infrastructure: analysis and monitoring (Municipality of Senigallia 2014-2021 & Municipality of Vignola 2020-2023)
- MIRALO – Maize inbred lines analysis to develop root efficient hybrids (Lombardia 2020-2023)
- REFLUA – Swine wastewater and the environment: reduction of antibiotics and antibiotic resistance in wastewater to protect water and soil (PSR Lombardia 2019-2021)
- RESISTI – New fast diagnosis systems and techniques with low eco-toxicological impact to contain resistance to pathogens, insects and weeds (PSR Emilia-Romagna 2020-2022)

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