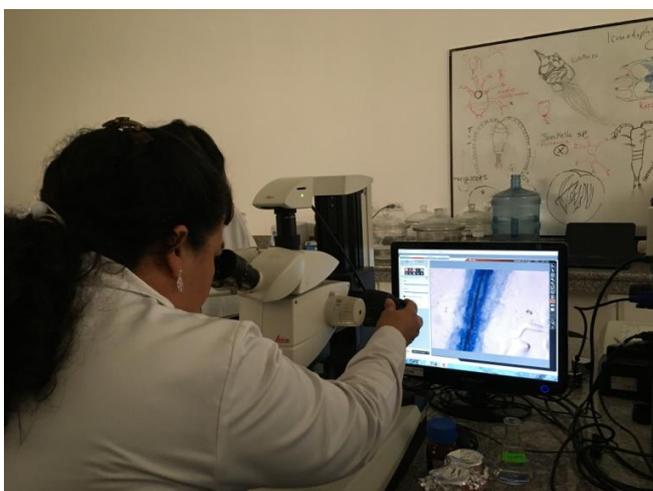


Biofertilisers to improve soil fertility

Developing local production of biofertilisers to increase quality and yield of herbaceous crops in Tuscany

FERTIBIO is an Italian Operational Group using microorganisms and biomaterials to develop innovative biological fertilisers for the cultivation of food and feed crops. The aim is to reduce the use of mineral fertilisers and environmental pollution, maintain crop productivity and improve production quality and soil fertility.

"In Tuscany and across Europe there is growing interest in new models of agriculture that guarantee a reduction of pollutants and a rationalisation of energy inputs." Cosimo Righini from CIA Toscana, partner of FERTIBIO. "Symbiotic Agriculture" is about restoring, safeguarding and using the symbioses between soil microorganisms and the root systems of crops. Biofertilisers help to achieve this symbiosis, accelerating microbial processes which increases the availability of nutrients. "Biofertilisers increase yield by 15-35% in most of vegetable crops, some excrete antibiotics and thus act as pesticides and, more importantly, they do not cause atmospheric pollution and increase soil fertility compared to mineral fertilisers," says Elisa Pellegrino, researcher at the Sant'Anna School of Advanced Studies.



The lead partner of FERTIBIO is an agricultural cooperative and the partners include farmers. The partners are developing and testing new formulations of biofertilisers for herbaceous plant species. The biofertiliser ensures a gradual release of arbuscular endomycorrhizal fungi (AMF), soilborne microorganisms. Field trials are being carried out across small farms located in different parts of the region and with different cultivation systems.

"We are collecting interesting results about the application of AMF in tomato production" says Elisa Pellegrino, "some cultivars seem to be influenced in a

positive way in their growth and ripening".

The project will then transfer the production process of these biofertilisers from lab scale to industrial scale. "One of the project goals is to scale up production of different types of biofertiliser at industrial level" says Cosimo Righini "doing this will create the first Tuscany production of biofertilisers developed together with farmers".

From the results of the trials, a training guide, course and workshops will be developed for farm advisers and farmers about the use of biofertilisers. "We are strongly interested in the possibility to create a network on biofertilisers, with the help of EIP-AGRI" says Cosimo Righini "to share projects and best practice".



Partners

- Lead partner: Coop. Agricola Terre dell'Etruria (Enterprise)
- Other partners
- Scuola superiore Sant'anna di Pisa (University)
- Fattoria la Prata (Farm)
- Soc. Coop. Agr. Il Rinnovamento Agricolo (Farm cooperative)
- Musu Giuseppe e Francesco (Farm)
- Az. Agr. Grappi Luchino (Farm)
- Coop. Agricola Spontanea (Farm cooperative)
- Az. Agr. Ughetta Bertini (Farm)
- CIA Agricoltori Italiani Toscana (farmers organisation)
- Idea Verde Concimi (Fertiliser enterprise)
- Terra è Vita Etruria (training agency)

Further information: [on the EIP-AGRI website](#), [on facebook](#),

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Images: Cosimo Righini