

## Soil Health and Function Laboratory

Soil microbial analysis is currently being used as a decision-support tool to help farmers in transitioning to more sustainable farming practices. By examining the microbial communities present in the soil and their associated-functions, farmers gain valuable insights into soil health, and function. Soil Health and Function Laboratory, established by Food4Sustainability and incubated at ArrudaLab, an Agro-industrial Innovation Center, stands as a unique laboratory in Portugal fully dedicated to study the health and function of the soil and to deliver farmers personalised insights on how to better improve their crops or adapt to new challenges.

This is reached through soil specific-crop study of its microbiota using next-generation DNA sequencing to uncover soil functionality. Food4sustainability is a Becrop® test (developed by Biome Makers) representative and with this test delivers comprehensive reports on soil functionality pertaining to nutrition, stress adaptation, and microbial-based disease risks, suggesting tailor-made sustainable solutions, such as biostimulants, biofertilizers, biocontrol agents, and regenerative practices. These insights assist farmers in making informed decisions about nutrient management, pest control, growth promotion, and yield optimization, all while minimizing environmental impact and ensuring a healthy future for both their land and their crops.

