

Attracting native soil beneficials to enhance crop yields

The EU BioAttract project is a collaboration between Spanish and Dutch companies. Various enzymatic formulations have been developed in this project.

These formulations serve to attract local growth-promoting micro-organisms and liberate soil-bound nutrients. It is hoped that these effects will increase plant resilience and crop yields. Twenty enzymes and a number of root exudate compounds were screened in various crops. We chose five of these enzymes as candidates for the formulations. Some formulations were able to promote the growth of microorganisms

such as *Bacillus subtilis* and *Trichoderma* sp. and reduce growth of *Fusarium oxysporum* and *Rhizobium rhizogenes*. We also found that enzymatic solutions without other additives were able to increase the phosphate uptake in tomato and melon plants, resulting in an increase in plant size and flower numbers.

New experiments are being set up to further develop other formulations in different compositions with the aim of alleviating abiotic stress and using them as seed coatings.



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