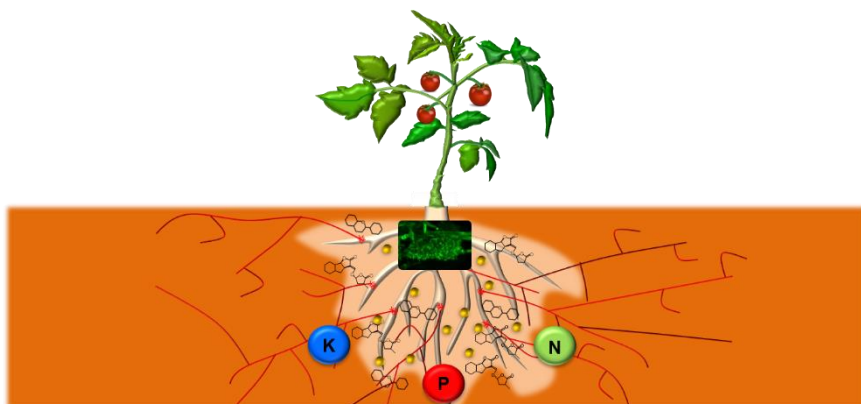


Technology Offer

CSIC/VM/002

## Eudesmanolides as biostimulants for mycorrhizal colonization



**New plant-based compounds for use as biostimulants in sustainable agriculture. Ideal for improving the activity of arbuscular mycorrhizal fungi and mycorrhization in plants.**

### Intellectual Property

Patent applied at the Spanish Patent and Trademark Office

### Stage of development

Proven efficacy *in vivo*

### Intended Collaboration

Licensing and/or co-development

### Contact

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### Market need

Current agriculture requires massive use of chemical fertilizers and pesticides to maintain production levels. The abuse of these agrochemicals produces a great environmental impact, making it necessary to find more sustainable and environmentally friendly alternatives. One alternative is the use of beneficial microorganisms, such as arbuscular mycorrhizal (AM) fungi, as biostimulants. They improve crop productivity and soil quality. Despite their potential, their application in agriculture remains a challenge due to the variability of results under field conditions, making their commercialization and implementation difficult.



### Proposed solution

- The addition of biostimulants (prebiotics) improves the activity of arbuscular mycorrhizal fungi
- Their efficacy has been tested *in vitro* and *in vivo* in different cultivars
- They have been tested under production conditions in tomato plants (proof of concept)
- They can be added separately or together with arbuscular mycorrhizal fungi

### Competitive advantages

- The application of this innovation improves the efficiency of arbuscular mycorrhizal fungi and mycorrhizal colonization
- They act at very low doses
- They can be used with commercial products based on arbuscular mycorrhizal fungi
- They are of natural origin and harmless to the plant