



Beneficial Microbes to Optimize pest control in Sustainable Tomato production

BeMOST HFRI-FM17-50

D4.1 Enzymes and secondary metabolites in response to BM (fungi/bacteria)-induced resistance (CO)

Summary

D4.1 is a deliverable of WP4 which investigates the effects of beneficial microbes on the production of direct and indirect defences in response to herbivory in tomato. To that end, the activity of defense-related enzymes and the production of secondary metabolites is studied. The objectives to achieve this are:

- 4.1. To identify defense-related enzymes that regulate microbe-induced resistance to arthropods;
- 4.2. To identify secondary metabolites that regulate microbe-induced resistance to arthropods;
- 4.3. To identify volatile compounds that regulate indirect-induced defenses by beneficial microbes against arthropods.

In the context of the WP4 objectives, D4.1 reports on the work performed for the analyses of the activities of defense-related enzymes and the analyses of secondary metabolites involved in microbe-induced plant resistance against BeMOST herbivores for selected fungal/bacterial-tomato-herbivore combinations.