

Seed treatments with *Bacillus* species induce a beneficial metabolic reprogramming in melon plants

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Abstract

Plant-beneficial microbes are known to provide multifaceted traits to the plant health. Among them, *Bacillus* species are commonly detected members of the plant holobiont which have been described as stimulators of seed germination, plant growth and the defense against phytopathogens. In this work we describe, with the utilization of untargeted metabolomics and bioinformatic tools as GNPS, MolNetEnhancer and MZmine, the different metabolomic patterns found according to the elderly of the leaves. In addition, we compare the metabolomic profile of plants emerged from seeds bacterized with *B. subtilis* and *B. velezensis* identifying tryptophan, a chlorophyll A analog and flavonoids as key metabolites in the specific response of each bacterium against abiotic stresses.