

O-29 (140)**MICROBIAL INOCULATION OF VEGETABLE CROPS: TECHNIQUES AND EFFECTS**

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The inoculation of crops with beneficial microbes represents an alternative technology to excessive input of agrochemicals into cultivation systems. There is a large body of evidence that the beneficial microbes such as arbuscular mycorrhizal fungi, plant growth promoting rhizobacteria, mycoparasitic - biocontrol fungus *Trichoderma* spp. and others can become an efficient part of a good practice in horticulture crop production. Major problem of the large scale implementation of microbial inoculation is certainly the cost of inocula and extra labor to either mix inocula into growing media or apply inocula on the field scale. One of the options to overcome that is to employ microbial seed coating where the dose of inocula per plant or per area of the cultivation field is significantly reduced. Series of the experiments in pots and in the field have proven that the seed coating technology is feasible and fully functional as regards successful introduction of microbes into cultivation systems. The experiments with various vegetables, mainly legumes have proven that the seed coating technique can serve as an efficient vector of microbe's introduction into the soil and also bears high potential in improving crop growth, yield, quality and resistance to various environmental stresses. Potential of broadscale use of this technology is highly relevant in low input or biologically based horticulture.

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