

International Conference on

## ENVIRONMENTAL MICROBIOLOGY AND MICROBIAL ECOLOGY

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International Conference on

## ECOLOGY AND ECOSYSTEMS

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**Effect of biofertilizers on nutrient uptake and quality attributes in onion (*Allium cepa* L.)****Dilpreet Talwar and Kulbir Singh**

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Biofertilizers improve the nutrient uptake and quality attributes of onion by reducing the inorganic fertilizers dose and improving the farmer's income. The study was conducted at Vegetable Research Farm, Punjab Agricultural University, Ludhiana. In an experiment, fifteen treatments comprised of various combinations of biofertilizers, organic manures and chemical fertilizers were compared. Biofertilizers improve the nutrient status of the soil because *Azotobacter* and *Azospirillum* provide nitrogen to plant and soil by fixation process. The results revealed that N and K level in soil at time of harvesting was maximum in T<sub>3</sub> (*Azospirillum* along with recommended dose of N, P and K) while P level was found to be maximum in T<sub>5</sub> (PSB along with recommended dose of N, P and K). Maximum TSS, Ascorbic acid and dry matter was attained with *Azospirillum* along with recommended dose of N, P and K followed by *Azospirillum* along with 75 % dose of N and full dose of P and K and it was significantly superior than control treatment. It may be concluded that *Azospirillum* either along with RDF or with 75 % dose of N suggested for sustainable production of onion.

**Biography**

Dilpreet Talwar is currently a student of Ph.D program in which he is specializing in Vegetable Science at Punjab Agricultural University, Ludhiana. He has done his Bachelor's of Sciences in Agriculture with Horticulture as an elective and Masters in Vegetable Science. It was his capacity that he kept up with his co-curricular activities as a PAU magazine editor (Punjabi Section, year 2014-15). He got University merit scholarship during 3<sup>rd</sup> and 4<sup>th</sup> semester of his masters.

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