

Impact of endophytic non-nodulating bacteria on plant health

"Plant bacteria interaction for enhanced nutrition uptake and abiotic & biotic stress tolerance"

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Endophytic bacteria colonize plant's interior and live within the plant for the majority of plant life cycle without any detrimental impact on the host plant, opposite brining several nutritional and abiotic and biotic stress tolerance benefits, including NUE (Nutrients Use Efficiency) and BNF (Biological Nitrogen Fixation). Last year's advances in molecular techniques allowed for isolation and identification of non-nodulating BNF bacteria in non-legume plants with much better understanding of their plant-bacteria interaction. As a result, not only research studies have advanced in that area but also several commercial products had been developed for crops like wheat, corn, rice and vegetables. This presentation provides an overview of mechanism of non-nodulating bacteria interaction with the non-legume plants, and their impact on plants nutrients use efficiency and tolerance to the stressors, resulting in better growth, development and yields of those crops.