

EXPLORING THE ROLE OF RICE-DERIVED ENDOPHYTES IN CHICKPEA GROWTH PROMOTION

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*Endophytic microorganisms, residing in plant tissues, play a vital role in enhancing nutrient absorption, stimulating growth-promoting substances, and fortifying disease resistance. This symbiotic relationship contributes to overall plant health, making these microorganisms valuable allies in sustainable agriculture practices which have garnered significant attention in recent years. This study focuses on isolating and evaluating the potential of endophytes to enhance plant growth in chickpea plants (*Cicer arietinum* L.). Different endophytes were isolated from stem and root samples of rice plant (*Oryza sativa*) to investigate their potential in enhancing plant growth. Endophytes obtained from rice plants were introduced to seven to eight-day-old chickpea seedlings cultivated in autoclaved soil for monitoring their growth and condition. The inclusion of isolated microorganisms from rice plants shows a positive impact on the growth and health of the seedlings. Morphological and biochemical characterization of the isolated microbes was done to understand microbial characteristics. In this context the strains R2 and 6F found to be more efficient among the 5 isolated strains. This comprehensive approach provides valuable insights into the potential effects of harnessing endophytes as potential biofertilizers for sustainable agricultural practices and maintaining eco-sustainability.*
