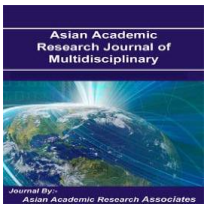
AARJMD VOLUME 6 ISSUE 3 (MARCH 2019) ISSN : 2319 - 2801

A Peer Reviewed International Journal of Asian Academic Research Associates

AARJMD

ASIAN ACADEMIC RESEARCH JOURNAL OF MULTIDISCIPLINARY



POTENTIAL OF ENDOPHYTIC BACTERIA OF THE BACILLUS GENUS TO BRASSICA OLERACEA VAR. ACEPHALA GROWTH PROMOTION

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Abstract

The objective of this study was to verify the potential of endophytic bacteria of the genus Bacillus isolated from cacti, as well as the ability to promote plant growth in leaf cabbage (*Brassica oleracea* var. *acephala*). The experiment was conducted in a completely randomized design, in a 2 x 6 factorial scheme, where the first factor represents the soil conditions (sterilized and not sterilized) and the second factor the endophytic isolates (ISO31, ISO33, ISO34, ISO48, ISO51 and the control). At 77 days after planting the seeds, the biometric parameters were analyzed and the total chlorophyll content of the respective treatments was evaluated. The in vitro colonization test was carried out in the laboratory, where seedlings were immersed for one hour in 10 mL of bacterial solution cultured for 24 hours with endophytes and incubated in agar-water (0.3%) seven days, after, the percentage of root colonization was evaluated. It was verified that the isolates did not present capacity of growth promotion for most of the variables studied, being verified increase only for height of plants, provided by ISO31. The use of autoclaved soil only increased biomass and shoot dry matter. In the in vitro assay, the root colonization capacity was verified, being ISO31 and ISO34, the ones that obtained the highest percentage of colonization.

Keywords: cabbage leaf, vegetal growth, benefitial bacteria, plant development

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