

# Genome Sequence of *Azospirillum brasilense* CBG497 and Comparative Analyses of *Azospirillum* Core and Accessory Genomes provide Insight into Niche Adaptation

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## Abstract:

Bacteria of the genus *Azospirillum* colonize roots of important cereals and grasses, and promote plant growth by several mechanisms, notably phytohormone synthesis. The genomes of several *Azospirillum* strains belonging to different species, isolated from various host plants and locations, were recently sequenced and published. In this study, an additional genome of an *A. brasilense* strain, isolated from maize grown on an alkaline soil in the northeast of Mexico, strain CBG497, was obtained. Comparative genomic analyses were performed on this new genome and three other genomes (*A. brasilense* Sp245, *A. lipoferum* 4B and *Azospirillum* sp. B510). The *Azospirillum* core