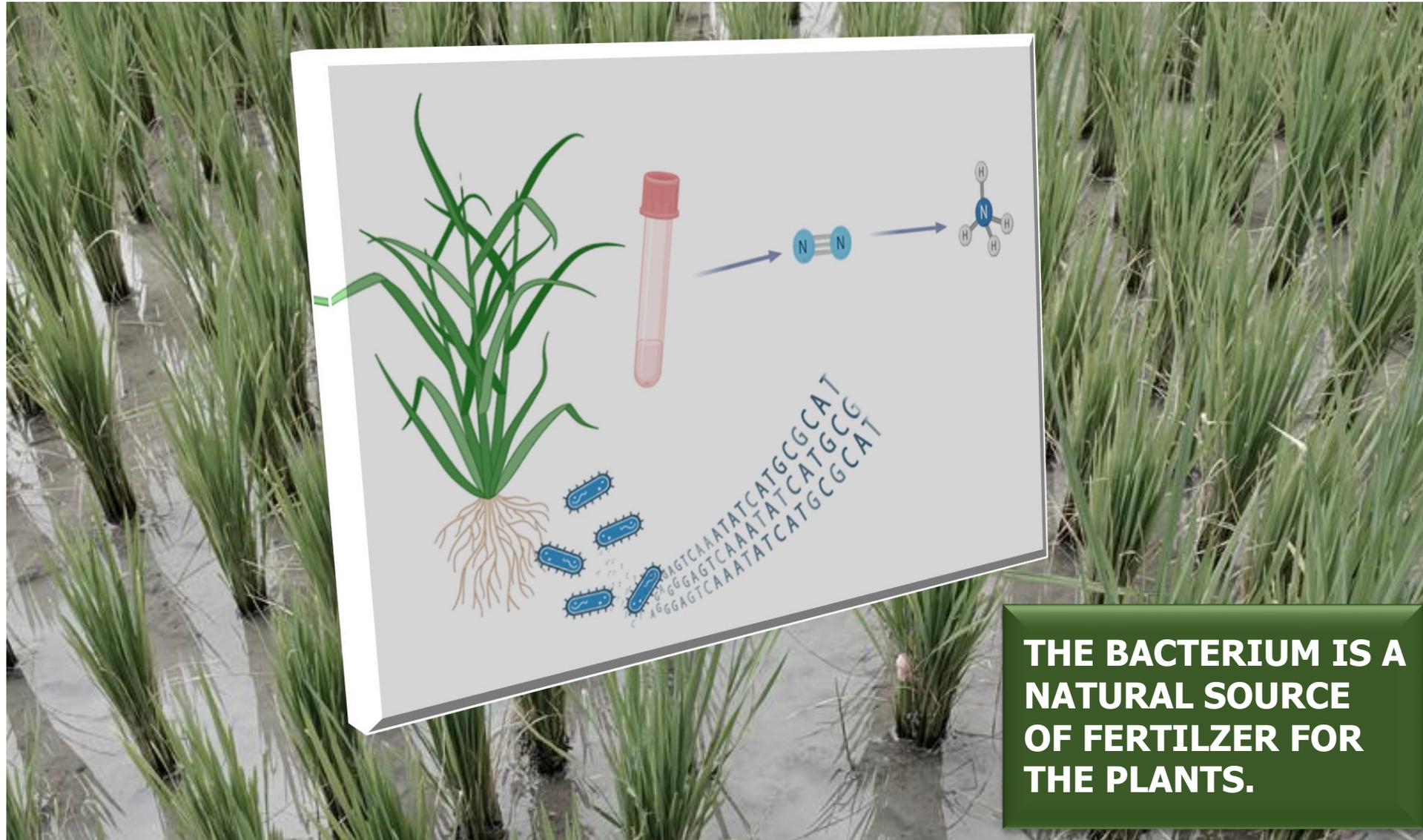




## Genome of the Day: *Azospirillum brasilense*



**THE BACTERIUM IS A  
NATURAL SOURCE  
OF FERTILIZER FOR  
THE PLANTS.**

# Azospirillum brasilense

Genome Accession Number: INRP000249

## Quality of Genome Assembly and Annotation:

Results from indigenously developed **BHARAT** analysis pipeline:  
(**B**acterial **H**ybrid genome **A**ssembly and **R**apid **A**nnotation **T**oolset)

**Table 1: Assembly Details**

Contigs	198
GC Content	68.60
Contig L50	30
Genome length	7,622,378 bp
Contig N50	83,188

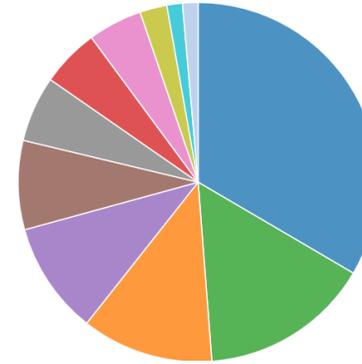
**Table 2: Annotated Genome Features**

CDS	7,116
tRNA	15
rRNA	3
Repeat Regions	54

**Table 3: Antimicrobial Resistance Genes**

AMR Mechanism	Genes
Antibiotic inactivation enzyme	CatB family
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Efflux pump conferring antibiotic resistance	MacA, MdtABC-OMF, MdtABC-TolC, TriABC-OpmH
Gene conferring resistance via absence	gidB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Regulator modulating expression of antibiotic resistance genes	OxyR

## Subsystem Analysis



Subsystem (Subsystems, Genes)

- METABOLISM (96, 868)
- PROTEIN PROCESSING (44, 257)
- ENERGY (34, 354)
- STRESS RESPONSE, DEFENSE, VIRULENCE (29, 150)
- MEMBRANE TRANSPORT (23, 144)
- DNA PROCESSING (17, 68)
- CELLULAR PROCESSES (15, 198)
- RNA PROCESSING (14, 70)
- CELL ENVELOPE (7, 35)
- REGULATION AND CELL SIGNALING (4, 14)
- MISCELLANEOUS (4, 10)

## Genome Assembly

