



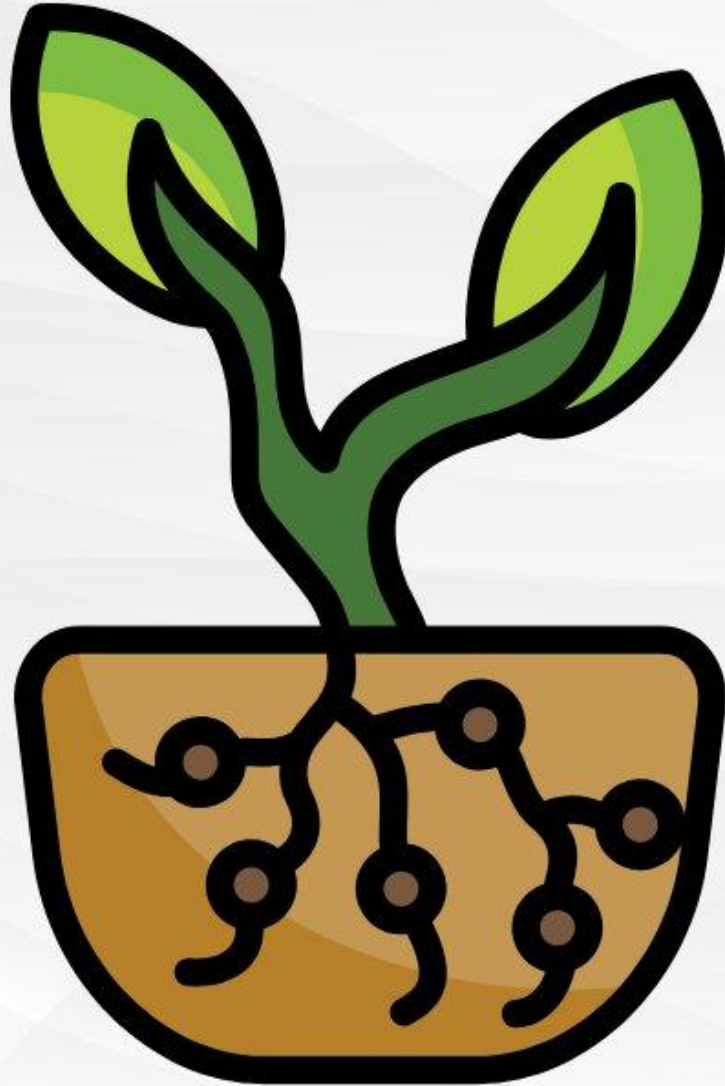
Government of India
Ministry of Science & Technology
Department of Biotechnology



One Day One Genome

Rhizobium sp

Isolated from root nodule of
Phaseolus vulgaris, मणिपुर
it actively produces
biochemical enzymes



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	68
GC Content	61.27
Contig L50	7
Genome length	6,200,594 bp
Contig N50	362,225

Table 2: Annotated Genome Features	
CDS	6,249
tRNA	7
rRNA	3

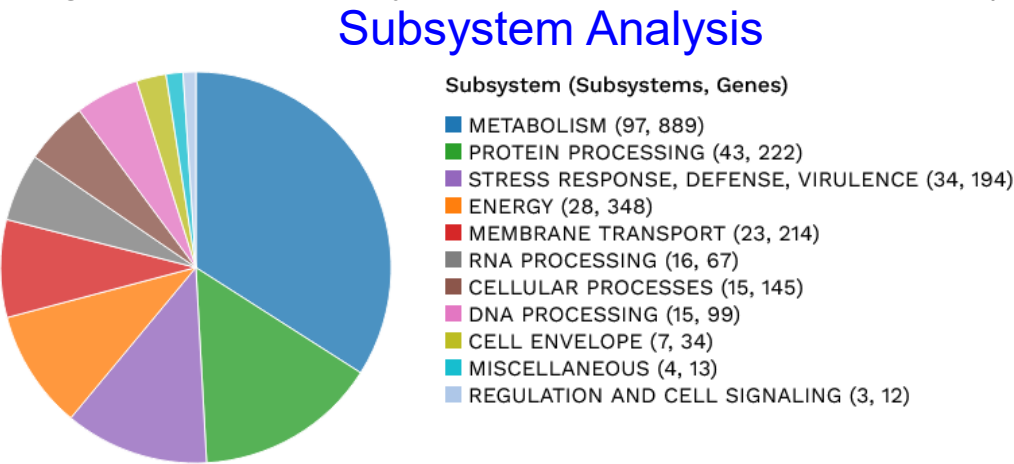


Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	Genes
Antibiotic inactivation enzyme	AAC(3)-II,III,IV,VI,VIII,IX,X
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Efflux pump conferring antibiotic resistance	MacA, TriABC-OpmH
Gene conferring resistance via absence	gidB
Regulator modulating expression of antibiotic resistance genes	OxyR

