



Government of India
Ministry of Science & Technology
Department of Biotechnology



ONE DAY ONE GENOME

*Lactiplantibacillus
pentosus* SD1S6L2

A probiotic strain designed for controlled, nonsalted bamboo shoot fermentation which ensures safety, reproducible, uniform quality, and health benefits

Lactiplantibacillus pentosus

Genome Accession Number: PRJNA1262347

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	547
GC Content	46.20
Contig L50	6
Genome length	3,740,812 bp
Contig N50	193,169

Table 2: Annotated Genome Features	
CDS	3,910
tRNA	65
Repeat Regions	8
rRNA	5

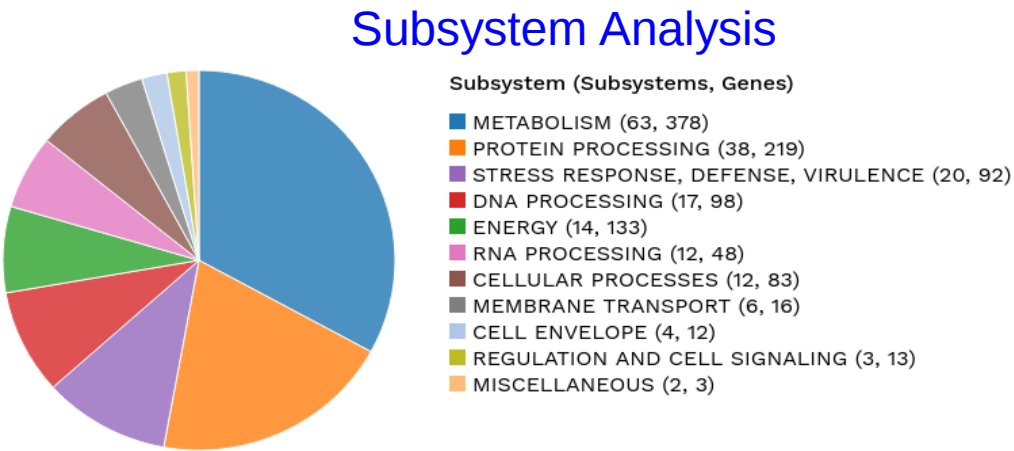


Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	Genes
Antibiotic target modifying enzymes	RlmA(II)
Antibiotic target in susceptible species	Alr, Ddl, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, inhA, fabI, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12
Protein altering cell wall charge conferring antibiotic resistance	GdpD, MprF, PgsA
Efflux pump conferring antibiotic resistance	MdtABC-TolC
Gene conferring resistance via absence	gidB
Regulator modulating expression of antibiotic resistance genes	OprF

Genome Assembly

