

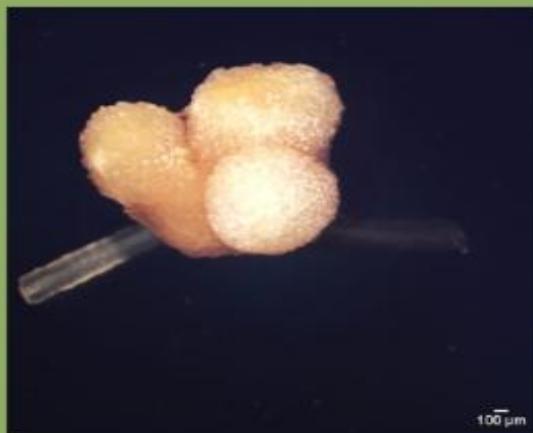
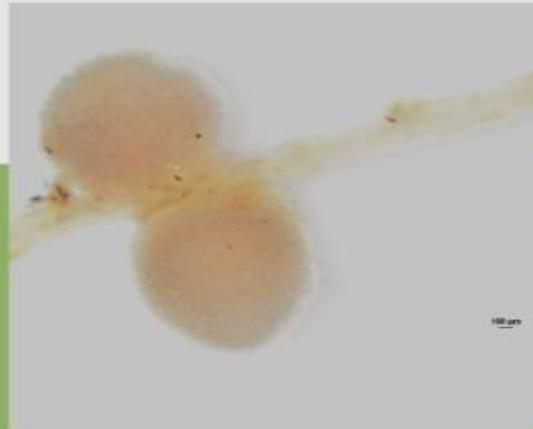


ONEDAYONEGENOME

Genome of the Day: *Mesorhizobium sp. NI_DL7*

The photographs are the Chickpea root nodules developed by *Mesorhizobium sp. NI_DL7*

**ISOLATED FROM
ROOT NODULES**

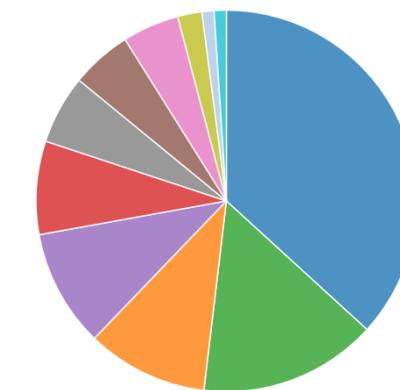


Quality of Genome Assembly and Annotation:Results from indigenously developed **BHARAT** analysis pipeline:**(Bacterial Hybrid genome Assembly and Rapid Annotation Toolset)****Table 1: Assembly Details**

Contigs	119
GC Content	61.24
Contig L50	14
Genome length	6,106,112 bp
Contig N50	155,698

Table 2: Annotated Genome Features

CDS	6,345
tRNA	78
rRNA	5
Repeat Regions	0

Subsystem Analysis

Subsystem (Subsystems, Genes)

METABOLISM	(107, 1030)
PROTEIN PROCESSING	(44, 247)
ENERGY	(30, 333)
STRESS RESPONSE, DEFENSE, VIRULENCE	(29, 175)
MEMBRANE TRANSPORT	(23, 187)
RNA PROCESSING	(17, 77)
CELLULAR PROCESSES	(15, 110)
DNA PROCESSING	(14, 88)
CELL ENVELOPE	(6, 28)
MISCELLANEOUS	(3, 6)
REGULATION AND CELL SIGNALING	(3, 10)

Genome Assembly**Table 3: Antimicrobial Resistance Genes**

AMR Mechanism	Genes
Antibiotic activation enzyme	KatG
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, S12p
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Regulator modulating expression of antibiotic resistance genes	OxyR

