



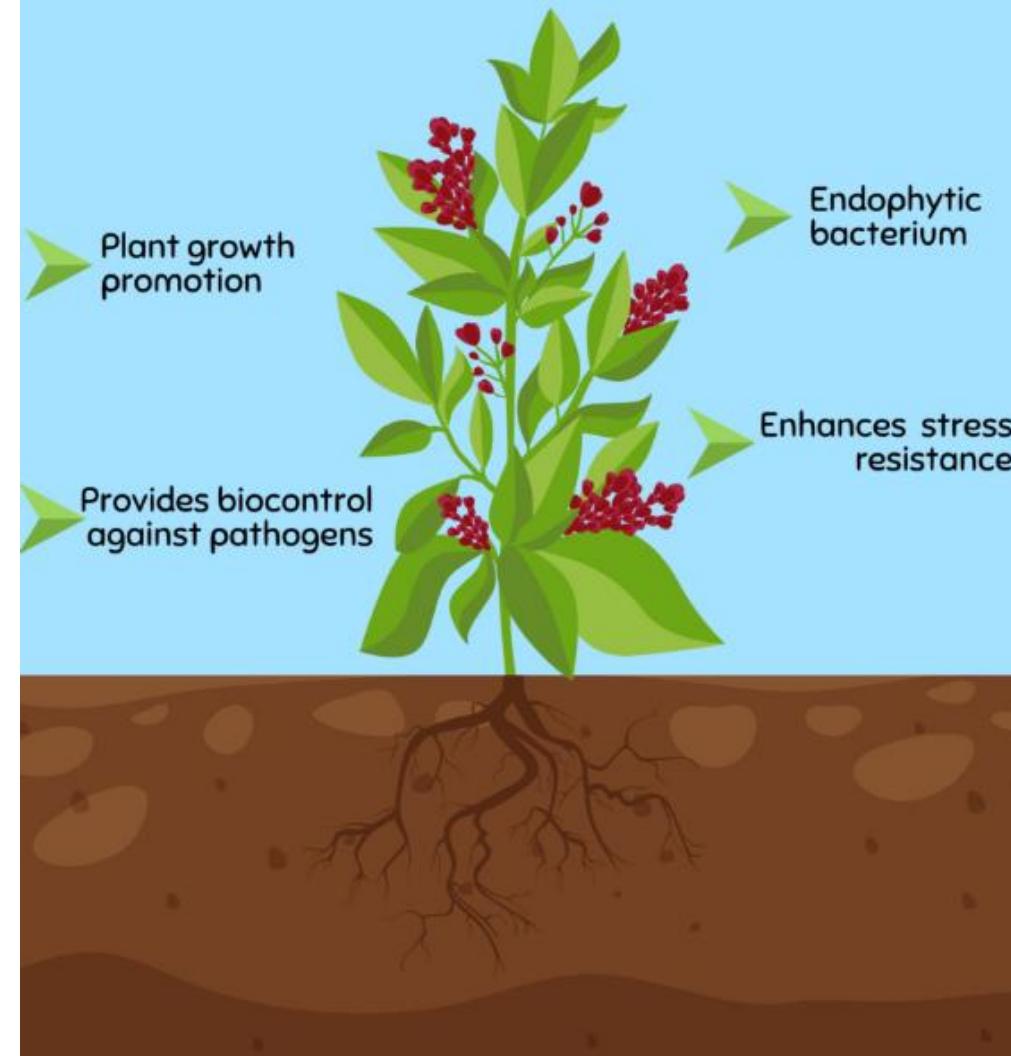
Government of India  
Ministry of Science & Technology  
Department of Biotechnology

BRIC  
a DBT Organisation

NCCS  
National Centre for Cell Sciences

# ONE DAY ONE GENOME

*Rothia santali*

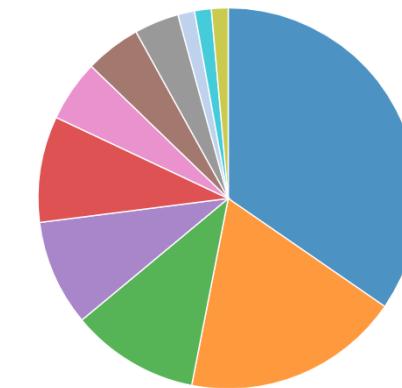


**Quality of Genome Assembly and Annotation:**Results from indigenously developed **BHARAT** analysis pipeline: (**Bacterial Hybrid genome Assembly and Rapid Annotation Toolset**)**Table 1: Assembly Details**

Contigs	84
GC Content	71.82 %
Contig L50	15
Genome length	3,305,617 bp
Contig N50	75,067

**Table 2: Annotated Genome Features**

CDS	3,154
tRNA	49
Repeat Regions	0
rRNA	6

**Subsystem Analysis**

## Subsystem (Subsystems, Genes)

- METABOLISM (73, 456)
- PROTEIN PROCESSING (39, 199)
- ENERGY (23, 154)
- DNA PROCESSING (19, 77)
- STRESS RESPONSE, DEFENSE, VIRULENCE (19, 95)
- RNA PROCESSING (11, 40)
- MEMBRANE TRANSPORT (10, 46)
- CELLULAR PROCESSES (8, 23)
- MISCELLANEOUS (3, 5)
- CELL ENVELOPE (3, 5)
- REGULATION AND CELL SIGNALING (3, 10)

**Table 3: Antimicrobial Resistance Genes**

AMR Mechanism	Genes
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, EF-Tu, folA, Dfr, folP, gyrA, gyrB, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Antibiotic target replacement protein	FabG, FabL-like
Regulator modulating expression of antibiotic resistance genes	MtrA, MtrB
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA

**Genome Assembly**