



#OneDayOneGenomeInitiative



Xanthomonas oryzae pv. *oryzae* (BXO) (CDFD_ODOG_BXO)

Insight

Genetic basis of virulence
and adaptability

Genomics

Genome sequencing using
short-read sequencing

Translation

New resistant rice
varieties and treatment

Isolation

Bacteria sourced from
infected rice plant in Kurnool

Agricultural Research

Insights into rice blight and host
interactions



INS
Indian Nucleotide Data Archive
INS0009881



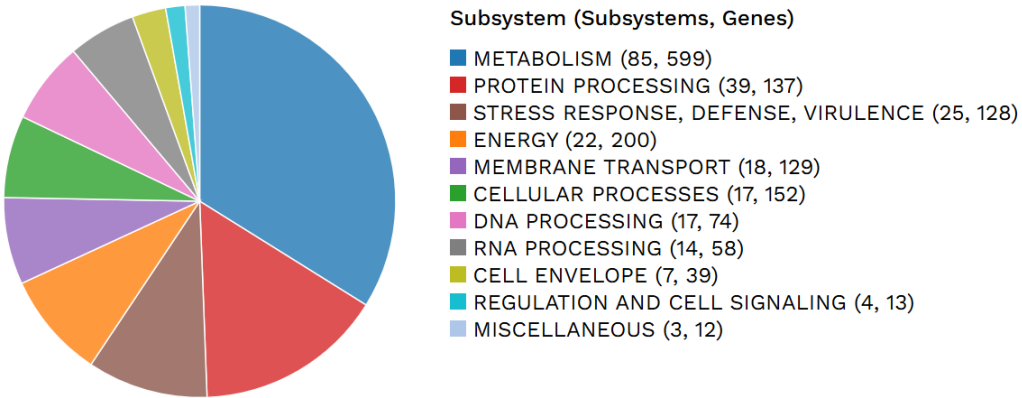
Quality of Genome Assembly and Annotation:
Results from indigenously developed **BHARAT** analysis pipeline:
(**B**acterial **H**ybrid genome **A**ssembly and **R**apid **A**nnotation **T**oolset)

Table 1: Assembly Details	
Contigs	1,386
GC Content	64.15
Contig L50	395
Genome length	3,273,777 bp
Contig N50	2,734

Table 2: Annotated Genome Features	
CDS	4,068
tRNA	28
Repeat Regions	0

Table 3: Antimicrobial Resistance Genes	
AMR Mechanism	Genes
Antibiotic target in susceptible species	Alr, Ddl, dxr, EF-G, folA, Dfr, folP, gyrA, gyrB, Iso-tRNA, kasA, MurA, rho, rpoB, rpoC, S10p, S12p
Efflux pump conferring antibiotic resistance	EmrAB-OMF, EmrAB-TolC, MdtABC-TolC, MexCD-OprJ, TolC/OpmH
Protein altering cell wall charge conferring antibiotic resistance	GdpD, PgsA
Protein modulating permeability to antibiotic	OprB family
Regulator modulating expression of antibiotic resistance genes	OxyR

Subsystem Analysis



Genome Assembly

