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LIST OF ABBREVIATIONS

%	Percentage
SPSS	statistical package for social sciences
a.i.	active ingredient (mm-1)
ABI	Applied Biosystems
AFLP	amplified fragment length polymorphism
ANOVA	analysis of variance
BCA	biocontrol agent
bp	base pairs
C FU	Colony Forming Unit
CAMHB	Cation Adjusted Mueller Hinton Broth
CONC-	Concentration
DD-	Disc diffusion
DMSO	Dimethyl sulfoxide
DNA	deoxyribonucleic acid
dsRNA	double stranded RNA
DyEx	spin kit (QIAGEN, Germany)
EO-	Essential oil
EX-	Extract
g-	Gram
g/l	Gram per liter
GC-MS-	Gas chromatography combined with mass spectrometry
GTP	guanosine triphosphate
HPLC-	High performance liquid chromatography
hr-	Hour
IC50-	The half maximum efficacy
ISG	intraspecific groups (<i>R. solani</i>)
ISR	induced systemic resistance
ITS	internal transcribed spacer region
IU-	International units
MAMP	microbe-associated molecular pattern
MBC	Minimum Bactericide Concentration
MEGA	Molecular Evolutionary Genetics Analysis (
mg-	Milligram
mg/ml	
MHA	Muller-Hinton Agar
MIC	Minimum Inhibitory Concentration
MIC-	Minimum inhibitory concentration
Min	Minute
mL-	Millilitre
mm-	Millimetre
mRNA	messenger RNA

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NaCl-	Sodium chloride
NCCLS-	National Committee for Clinical Laboratory Standards
NCTC-	National Culture Type Collection
NHLS-	National Health Laboratory Services
NJ	neighbor joining
NMR-	Nuclear magnetic resonance spectroscopy
np-BNR	non-pathogenic binucleate <i>Rhizoctonia</i> spp.
NSAI	non-self anastomosing isolates
NV-	Non-volatile constituents
°C	Degree Celsius
OD	Optical Density
PCD	programmed cell death
PCR	polymerase chain reaction
PDA	potato dextrose agar
Ppm	parts per million
PR p	pathogenesis related proteins
PRR	pathogen recognition receptor
qRT-PCR	quantitative reverse transcriptase polymerase chain reaction
R f -	Distance travelled by spot from base line with respect to solvent front.
RAPD	random amplified polymorphic DNA
RDD R	<i>Rhizoctonia</i> disease decline
rDNA	ribosomal DNA
RFLP	restriction fragment length polymorphism
RNA	ribonucleic acid
RNase	Ribonuclease (type of nuclease that catalyzes the degradation of RNA into smaller
rpm	Round per minute
RRI-	Relative retention index
rRNA	ribosomal RNA
SA	salicylic acid
SAI	self anastomosing isolates
SD	standard deviation
SNP	single nucleotide polymorphism
<i>sp.</i>	refer to a single species
<i>spp.</i>	refer to all the individual species within a genus
SPSS	statistical package for social sciences
U	Unit
U/L	Unit per liter
U/mg	Unit per milil gram
UV-	Ultra violet
v\v	Volume per volume
WHO	World Health Organization.
μL-	Microlitre