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List of abbreviations

AD	Anaerobic Digestion
ADS	Anaerobic Digester Slurry
ADSD0	Anaerobic Digester Slurry Treatment on Day Zero
ADSD60	Anaerobic Digester Slurry Treatment on Day sixty
ADSFW	Anaerobic Digester Slurry Floral waste on Day sixty
ADSRS	Anaerobic Digester Slurry Rice Straw on Day sixty
AI	Artificial Intelligence
AIL	Acid Insoluble Lignin
ANOVA	Analysis of Variance
ARD	Anaerobic Digestate Rice Straw
ASL	Acid Soluble Lignin
BOD	Biological Oxygen Demand
CD	Raw Cow Dung on Day Zero
CDD0	Cow Dung Treatment on Day Zero
CDD60	Cow Dung Treatment on Day sixty
CDFW	Cow Dung Floral Waste on Day sixty
CDRS	Cow Dung Rice Straw on Day sixty
CRD	Cow Dung Rice Straw
CH ₄	Methane
CHNS	Carbon Hydrogen Nitrogen Sulphur
CK	Control
CMC	Carboxymethyl Cellulose
CMCase	Carboxymethyl cellulase

C/N	Carbon/Nitrogen
CO ₂	Carbon Dioxide
COD	Chemical Oxygen Demand
DNA	Deoxyribonucleic Acid
Dp	Degree of Polymerization
EC	Electrical Conductivity
FA	Fulvic Acid
FAS	Ferrous Ammonium Sulphate
FCM	Flow cytometry
FOM	Fermented organic manure
FSC-A	Forward Scatter Area
FTIR	Fourier Transform Infrared Spectroscopy
FW	Floral waste
GHG	Green House Gas
GI	Germination Index
HA	Humic Acid
HI	Humification Index
H ₂ O ₂	Hydrogen Peroxide
HDPE	High-Density Polyethylene
INR	Indian Rupee
K	Potassium
KBr	Potassium Bromide
LCB	Lignocellulosic Biomass
LDPE	Low-Density Polyethylene
LFOM	Liquid fermented organic manure

MANOVA	Multivariate Analysis of Variance
MSP	Minimum Selling Price
MPs	Microplastics
N	Nitrogen
NaOH	Sodium Hydroxide
OD	Optical Density
OTU	Operational Taxonomic Unit
P	Phosphorus
PBS	Phosphate Buffer Saline
PCA	Principal Component Analysis
PCR	Polymerase Chain Reaction
PERMANOVA	Permutational Multivariate Analysis of Variance
PE	Polyethylene
PET	Polyethylene Terephthalate
PHA	Polyhydroxyalkanoates
PP	Polypropylene
PS	Polystyrene
PVC	Polyvinyl Chloride
QC	Quality Control
QIIME	Quantitative Insights into Microbial Ecology
RDA	Redundancy Analysis
RS	Rice Straw
RMSD	Root Mean Square Deviation
S	Sulphur
SDG	Sustainable development Goals

SEM	Scanning Electron Microscopy
SSC-A	Side Scatter Area
TC	Total Carbon
TEA	Techno-economic assessment
TS	Total Solids
TVFAs	Total Volatile Fatty Acids
VS	Volatile Solids