

Table S1. Basic physical and chemical properties of compost materials

Physical and chemical properties	wheat stalk	Pig manure	cow dung
pH	6.73	8.68	8.88
Electrical conductivity ($\mu\text{S}/\text{cm}$)	463.23	157.12	78.14
Organic matter(%)	52.1	47.7	45.6
Ammonium nitrogen(g/kg)	0.203	0.101	0.012
Nitrate nitrogen(g/kg)	0.212	0.246	0.381
Total nitrogen(g/kg)	13.311	44.929	69.029
Total phosphorus(g/kg)	5.775	23.338	5.269
Total potassium(g/kg)	3.467	20.231	19.654
Pb(g/kg)	3.333	2.594	23.633
Cd(g/kg)	0.533	0.574	0.782
Cu(g/kg)	0.183	0.225	0.236
Zn(g/kg)	40.601	33.720	51.263
Hg(g/kg)	0.611	0.602	0.798
As(g/kg)	8.011	4.553	4.789

Table S2. Determination indicators and methods

Test indicators	Test Methods	References
pH	pH meter method	References[1]
Electrical conductivity	Conductivity meter	Agricultural Industry Standards of the People's Republic of China NY 525-2021
Organic matter	Potassium dichromate volumetric method	Agricultural Industry Standards of the People's Republic of China NY 525-2021
Total nitrogen	Concentrated sulphuric acid - hydrogen peroxide decoction method	Agricultural Industry Standards of the People's Republic of China NY 525-2021
Ammonium nitrogen	KCl Extraction - Indophenol Blue Colorimetric Method	References [2]
Nitrate nitrogen	Ultraviolet spectrophotometry	References[3]
Total phosphorus	Sulphuric acid leaching - molybdenum antimony anti-colorimetric method	References[4]
Seed germination index (GI)	Experimental method for germination of radish seeds	Agricultural Industry Standards of the People's Republic of China NY 525-2021

References

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