

Effect of cow bone addition on the humification, heavy metals passivation and fate of heavy metals and antibiotic resistance genes in swine manure composting

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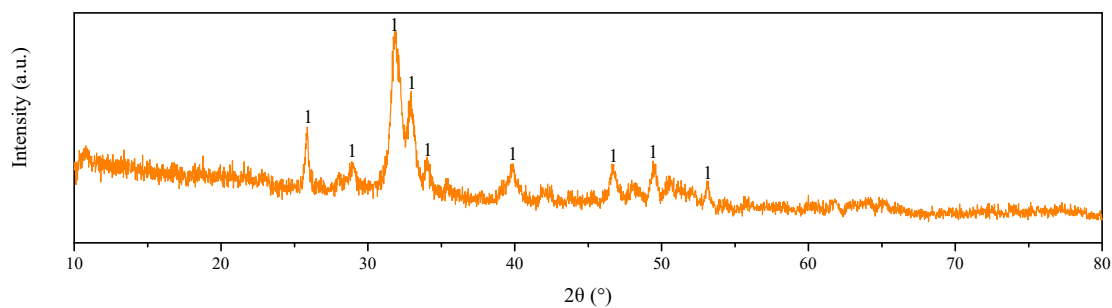


Fig. S1. The X-ray diffraction patterns of cow bone meal. 1: hydroxyapatite.

Table S1 The basic characteristics of composting raw materials

Raw materials unit	Moisture content %	pH	Organic carbon content g kg^{-1} DW	Organic nitrogen content g kg^{-1} DW
Swine manure	82.57	8.24	409	25.38
Sawdust	1.81	6.53	465	2.66

Table S2 The PCR primer sequences of MRGs, ARGs and *intI1*

	Gene name	Forward Primer	Reverse Primer
Copper resistance genes	pcoA	TGGCGTATGGAGTTTCAATGC	GAATAATGCCGTGCCAGTGAA
	trb	GTGCCGGAACCTCAAGTAGCA	GCACCGACTGCTGGACTTAA
	copA	TGCACCTGACVGGSCAYAT	GVACTTCRCGGAACATRCC
Zinc resistance genes	zntA	ATCGTCCGCTCGCTGTATCTCT	CCGCCTTTTCCCCTCACCTAACC
Integron gene	intI1	CGAACGAGTGGCGGAGGGTG	TACCCGAGAGCTTGGCACCCA
Fluoroquinolone resistance genes	aac(6)-ib-cr	GTTTGAGAGGCAAGGTACCGTAA	GAATGCCTGGCGTGTTTGA
	parC	GGTGAATATCGGTCGCCAT	AAACTTCGACGGCACTTTGC
Macrolide resistance genes	ermB	TAAAGGGCATTTAACGACGAAACT	TTTATACCTCTGTTTGTTAGGGAATTGAA
	ermF	CAGCTTTGGTTGAACATTACGAA	AAATTCCTAAAAATCACAACCGACAA
Sulfonamide resistance genes	sul1	CACCGAAACATCGCTGCA	AAGTTCGCGCGCAAGGCT
	sul2	CTCCGATGGAGGCCGCTAT	GGGAATGCCATCTGCCTTGA
Tetracycline resistance genes	tetW	ATGAACATTCCCACGTTATCTTT	ATATCGGCGGAGAGCTTATCC
	tetX	CAATAATTGGTGGTGGACCC	TTCTTACCTTGGACATCCCG
	tetG	GCAGAGCAGGTCGCTGG	CCYGCAAGAGAAGCCAGAAG