

Supplementary materials

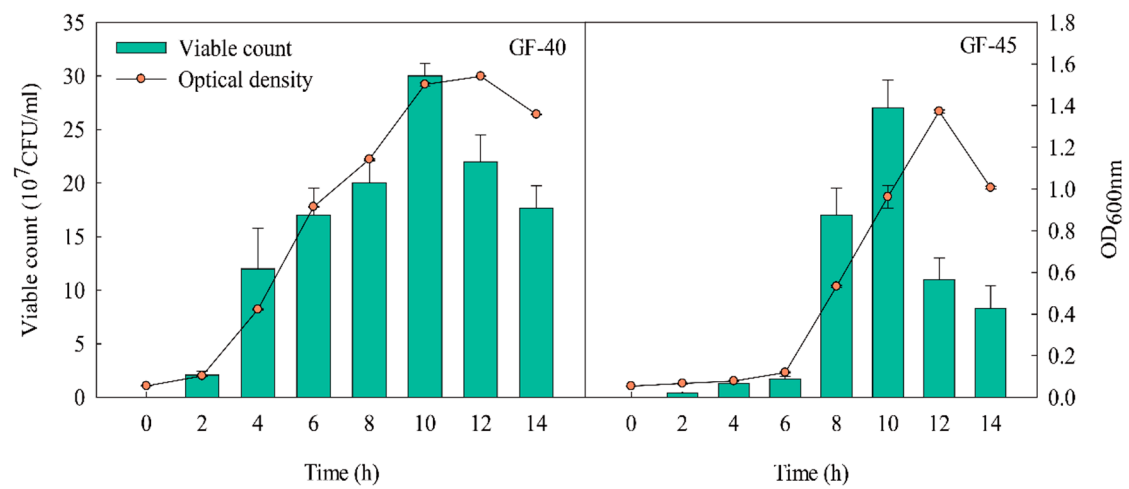


Figure S1. OD<sub>600</sub> values and viable bacterial counts during bacterial fermentation.

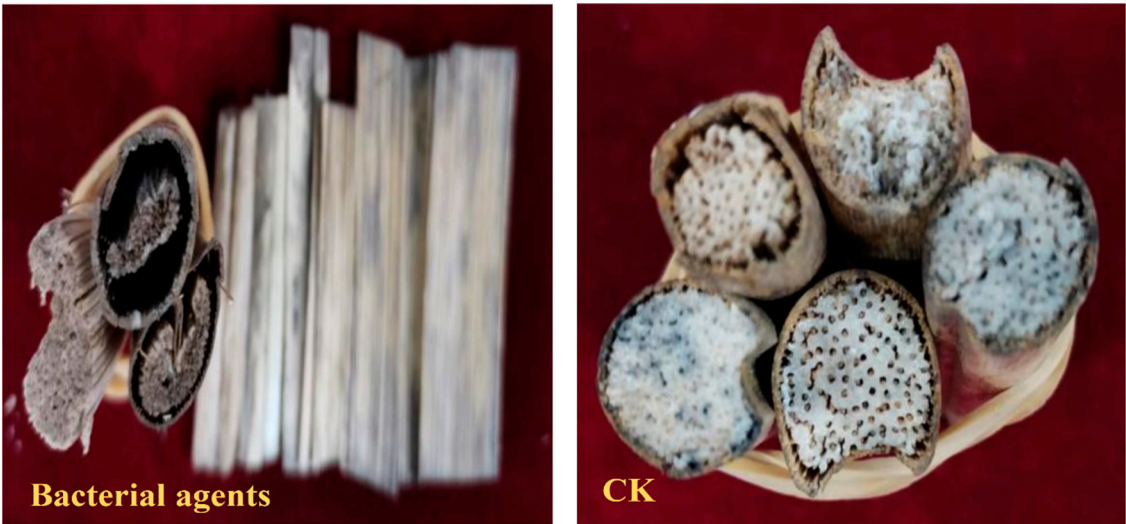
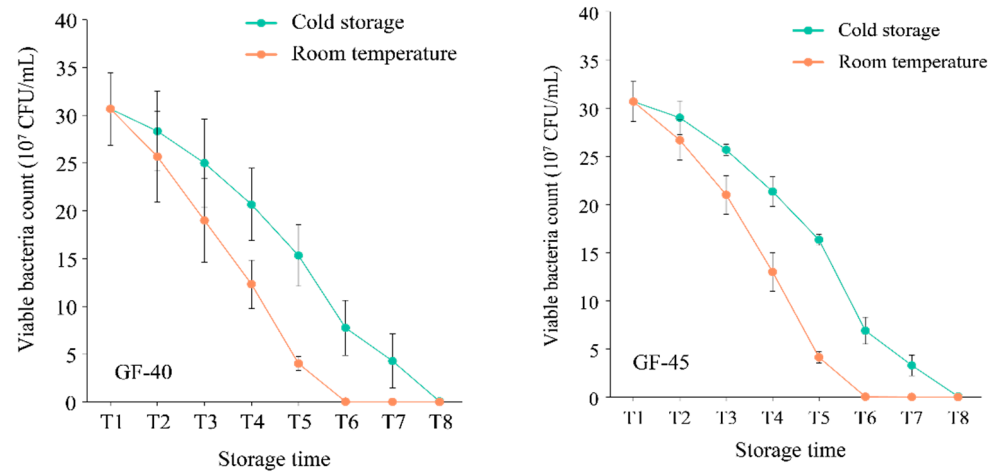


Figure S2. Comparison of the degradation effect of the bacterial agent and control groups in the laboratory test conditions.



**Figure S3.** Viable bacterial counts in bacterial solutions at different storage temperatures.

**Table S1.** Formulation of bacterial agents with a single additive.

Additive	Corn stalk husk powder	Starch	Bran
Precipitate:additive	1:8	1:8	1:8
	1:6	1:6	1:6
	1:4	1:4	1:4

**Table S2.** Formulation of bacterial agents with two types of additives.

Combination of additives	C+S			C+B			S+B		
Precipitate:additive	1:8	1:6	1:4	1:8	1:6	1:4	1:8	1:6	1:4
Ratio of additives	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
	1:2	1:2	1:2	1:2	1:2	1:2	1:2	1:2	1:2
	1:3	1:3	1:3	1:3	1:3	1:3	1:3	1:3	1:3
	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1
	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1	2:1

C: corn stalk husk powder; S: starch; B: bran.

**Table S3.** Formulation of bacterial agents with three types of additives.

P:A	A:P	S:B	P:A	A:P	S:B	P:A	A:P	S:B
1:8	1:1	1:1	1:1	1:1	1:1	1:4	1:1	1:1
		1:2			1:2			1:2
		1:3			1:3			1:3
		3:1			3:1			3:1
		2:1			2:1			2:1
	1:2	1:1	1:2	1:2	1:1		1:2	1:1
		1:2			1:2			1:2
		1:3			1:3			1:3
		3:1			3:1			3:1
		2:1			2:1			2:1
	1:3	1:1	1:6	1:3	1:1		1:3	1:1
		1:2			1:2			1:2
		1:3			1:3			1:3
		3:1			3:1			3:1
		2:1			2:1			2:1
	3:1	1:1	3:1	3:1	1:1		3:1	1:1
		1:2			1:2			1:2
		1:3			1:3			1:3
		3:1			3:1			3:1
		2:1			2:1			2:1
	2:1	1:1	2:1	2:1	1:1		2:1	1:1
		1:2			1:2			1:2
		1:3			1:3			1:3
		3:1			3:1			3:1
		2:1			2:1			2:1

P:A: Precipitate: additive; A:P: Adsorbent:protective agents; S:B: Starch:bran.