

Table S1. Statistical comparison of sporulation of *B. licheniformis* and *B. cereus* influenced by calcium and manganese supplementation concentrations.

Calcium (mM)	Manganese (mM)	Viable spore count (Log CFU/mL) ¹	
		<i>B. licheniformis</i>	<i>B. cereus</i>
0.00	0.00	8.89 ± 0.09 ^{HJKLM}	8.22 ± 0.04 ^{K,*}
	0.10	8.95 ± 0.04 ^{FGHIJ}	8.80 ± 0.07 ^I
	0.25	8.85 ± 0.08 ^{KL}	8.84 ± 0.10 ^{GHI}
	0.50	8.94 ± 0.10 ^{FGHIJ}	9.02 ± 0.07 ^{BCD}
0.25	0.00	8.83 ± 0.06 ^{LM}	8.90 ± 0.05 ^{EFGH}
	0.10	8.75 ± 0.04 ^{M,*}	8.97 ± 0.09 ^{CDEF}
	0.25	8.88 ± 0.06 ^{IJKL}	8.93 ± 0.03 ^{DEFG}
	0.50	8.96 ± 0.02 ^{FGH}	8.89 ± 0.05 ^{EFGHI}
0.50	0.00	9.18 ± 0.01 ^{AB}	9.12 ± 0.04 ^{A,+}
	0.10	9.07 ± 0.04 ^{CDE}	8.65 ± 0.13 ^J
	0.25	8.86 ± 0.04 ^L	8.65 ± 0.12 ^J
	0.50	8.96 ± 0.08 ^{FGHIJ}	8.89 ± 0.09 ^{EFGHI}
1.00	0.00	9.24 ± 0.06 ^{A,+}	8.69 ± 0.09 ^J
	0.10	9.02 ± 0.03 ^{DEF}	8.98 ± 0.06 ^{CDEF}
	0.25	8.94 ± 0.03 ^{FGHIJK}	8.99 ± 0.12 ^{CDE}
	0.50	8.88 ± 0.08 ^{JKL}	8.89 ± 0.06 ^{FGHI}
2.00	0.00	9.15 ± 0.10 ^{BC}	8.69 ± 0.14 ^J
	0.10	9.07 ± 0.10 ^{CD}	8.81 ± 0.06 ^{HI}
	0.25	8.98 ± 0.04 ^{EFG}	9.05 ± 0.06 ^{ABC}
	0.50	8.91 ± 0.07 ^{GHIJKL}	9.11 ± 0.10 ^{AB}
Average		8.97 ± 0.12	8.85 ± 0.21

¹ Mean ± standard deviation calculated from triplicates; ^{A-M} mean values in the same column that are followed by different letters are significantly different ($p < 0.05$); * the lowest viable spore count obtained; + the highest viable spore count obtained.

Table S2. Statistical comparison of sporulation of *B. subtilis* and *B. coagulans* influenced by calcium and manganese supplementation concentrations.

Calcium (mM)	Manganese (mM)	Viable spore count (Log CFU/mL) ¹	
		<i>B. subtilis</i>	<i>B. coagulans</i>
0.00	0.00	9.97 ± 0.05 ^{A,+}	10.04 ± 0.02 ^{A,+}
	0.10	9.78 ± 0.04 ^{FG}	9.86 ± 0.01 ^{CDEF}
	0.25	9.87 ± 0.05 ^{BCD}	9.78 ± 0.05 ^{GHIJ}
	0.50	9.89 ± 0.04 ^{BC}	9.91 ± 0.03 ^{CD}
0.25	0.00	9.89 ± 0.04 ^{BC}	9.82 ± 0.06 ^{EFGHI}
	0.10	9.88 ± 0.03 ^{BC}	9.91 ± 0.04 ^{BC}
	0.25	9.87 ± 0.03 ^{CD}	9.86 ± 0.10 ^{CDEFGH}
	0.50	9.92 ± 0.04 ^{AB}	9.90 ± 0.06 ^{CD}
0.50	0.00	9.76 ± 0.04 ^G	9.79 ± 0.05 ^{HIJ}
	0.10	9.80 ± 0.03 ^{EFG}	9.76 ± 0.03 ^{IJ}
	0.25	9.88 ± 0.04 ^{BC}	9.76 ± 0.05 ^{IJ}
	0.50	9.84 ± 0.02 ^{CDE}	9.79 ± 0.01 ^{FGHIJ}
1.00	0.00	9.80 ± 0.03 ^{EFG}	9.80 ± 0.05 ^{EFGHIJ}
	0.10	9.83 ± 0.03 ^{DEF}	9.87 ± 0.02 ^{CDE}
	0.25	9.83 ± 0.05 ^{DEF}	9.87 ± 0.02 ^{CDEF}
	0.50	9.90 ± 0.05 ^{BC}	9.85 ± 0.05 ^{DEF}
2.00	0.00	9.82 ± 0.05 ^{DEF}	9.81 ± 0.04 ^{EFGHI}
	0.10	9.82 ± 0.05 ^{EF}	9.74 ± 0.07 ^{I,*}
	0.25	9.70 ± 0.03 ^{H,*}	9.86 ± 0.06 ^{CDEF}
	0.50	9.92 ± 0.03 ^{AB}	9.97 ± 0.04 ^B
Average		9.85 ± 0.06	9.85 ± 0.07

¹ Mean ± standard deviation calculated from triplicates; ^{A-J} mean values in the same column that are followed by different letters are significantly different ($p < 0.05$); * the lowest viable spore count obtained; + the highest viable spore count obtained.