The IAA producing rhizobacterium *Bacillus* sp. SYM-4 with promotes maize growth and yield

Supplementary materials

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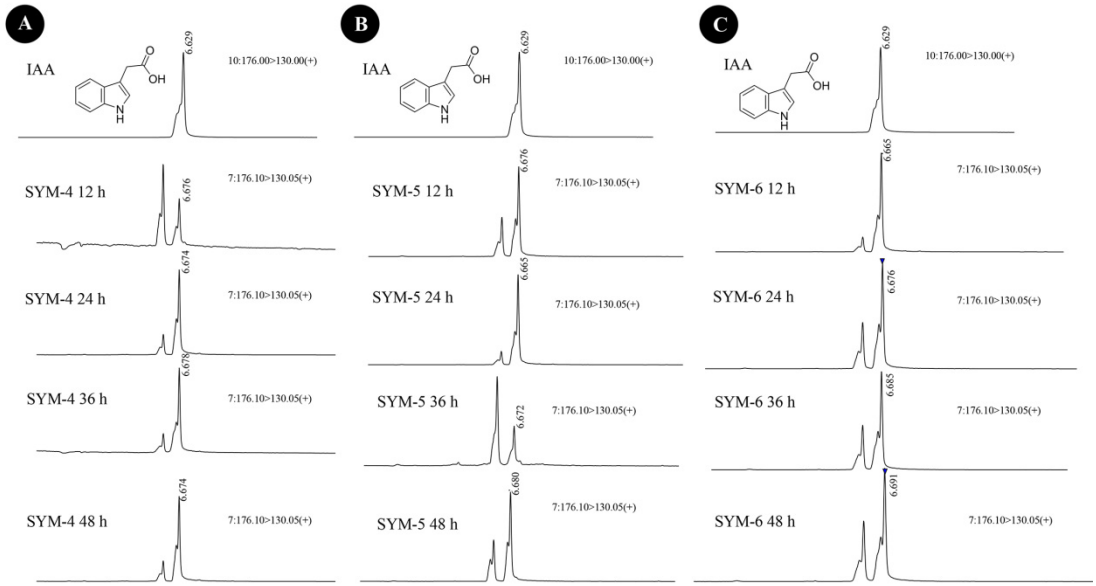


Figure S1. Qualitative and quantitative UPLC-MS/MS analysis of IAA synthesis in SYM-4 (A), SYM-5 (B), and SYM-6 (C) strains activated for 12-48 h.

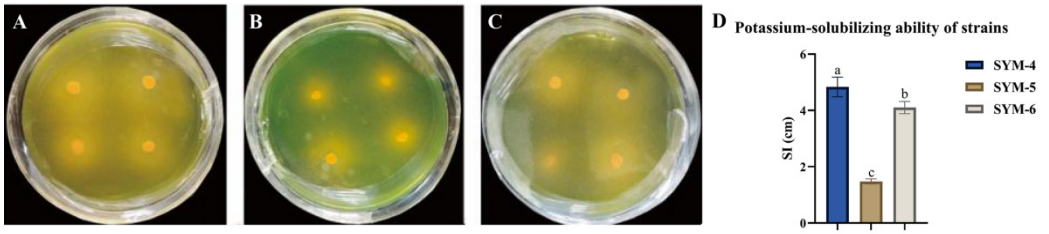


Figure S2. Determination of potassium-releasing activity of SYM-4 (A), SYM-5 (B) and SYM-6 (C). Different letters above the graph bars in part D indicate significant differences between values.

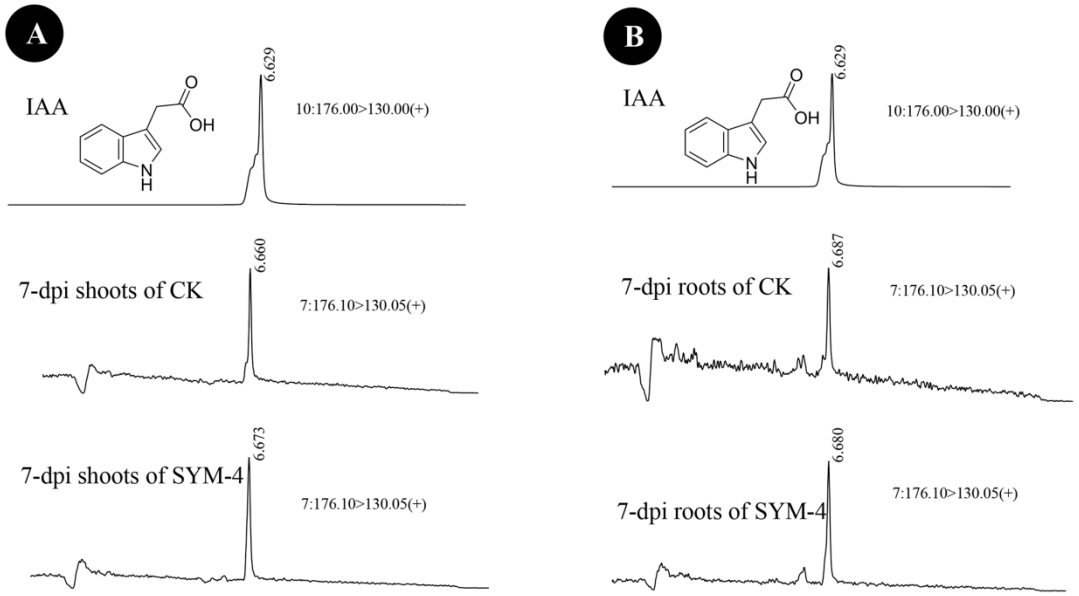


Figure S3. The qualitative and quantitative UPLC-MS/MS determination of IAA in the shoots (A) and roots (B) of maize seedlings grown for 7 days following inoculation with *Bacillus* sp. SYM-4.

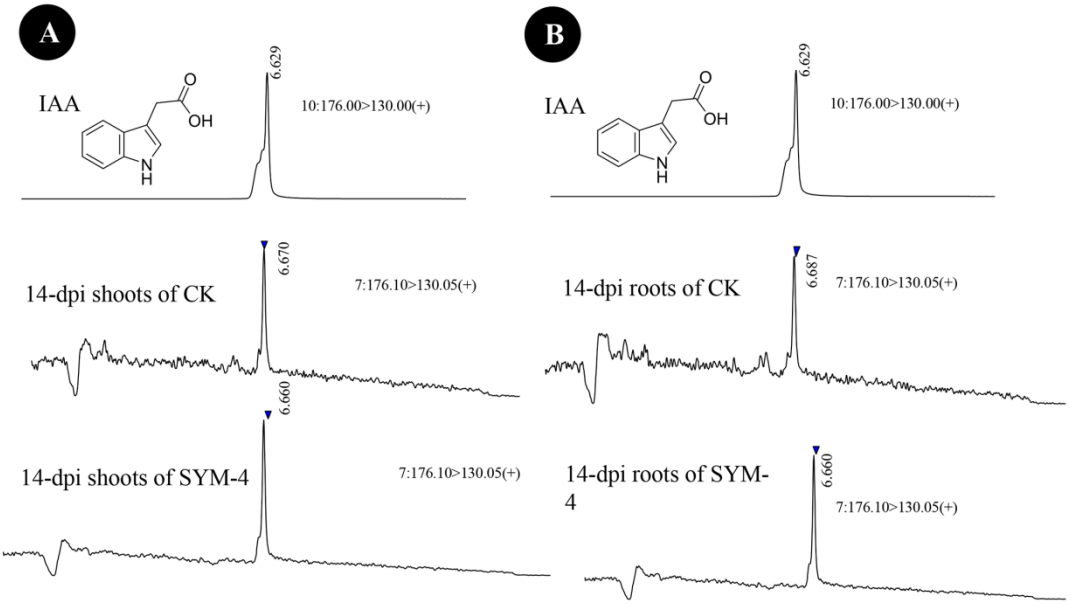


Figure S4. The qualitative and quantitative UPLC-MS/MS determination of IAA in the shoots (A) and roots (B) of maize seedlings grown for 14 days following inoculation with *Bacillus* sp. SYM-4.

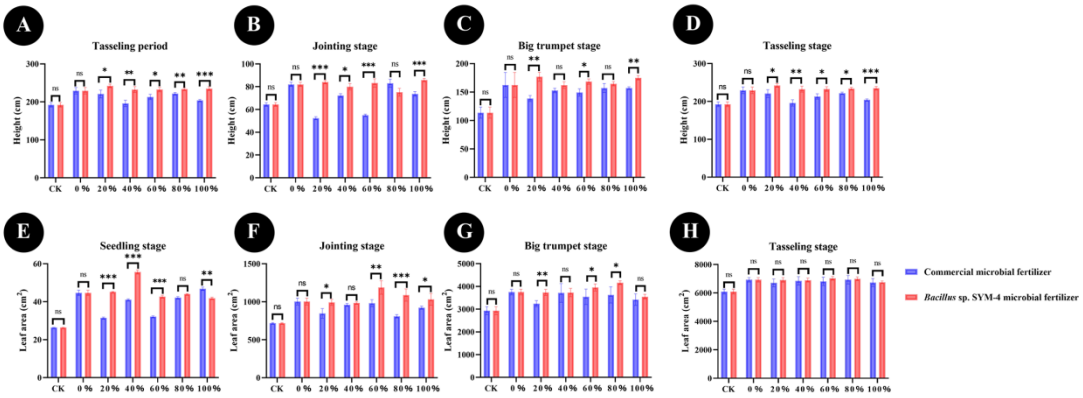


Figure S5. Plant height and leaf area of maize at four growth stages grown following application of fertilizer in which different proportions of a chemical fertilizer were replaced with either *Bacillus* sp. SYM-4 microbial fertilizer or a commercial microbial fertilizer.

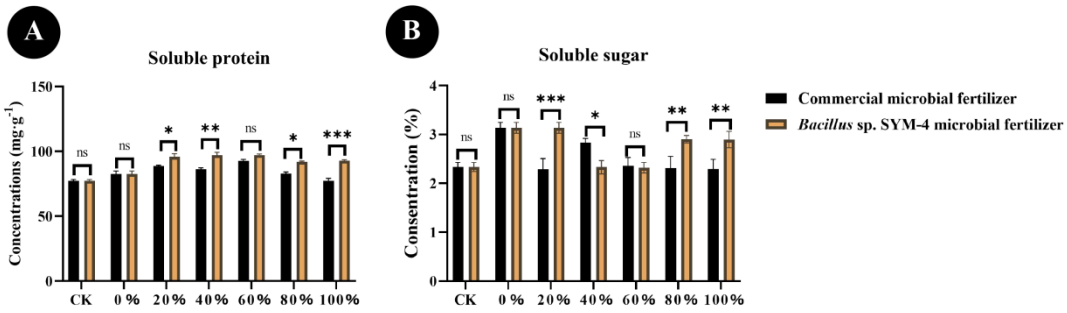


Figure S6. The soluble protein (A) and soluble sugar (B) content in the maize kernels in maize seedlings grown in the field following application of a fertilizer in which different proportions of a chemical fertilizer replaced with either *Bacillus* SYM-4 microbial fertilizer or a commercial microbial fertilizer.