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## Isolation of a Microorganism to Oxidize 5-Hydroxymethylfurfural

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A microbe of *Pseudomonas syringae* pathovar *cannabina* SF 4-17 converting 5-hydroxymethylfurfural (HMF) to 5-hydroxymethyl-2-furancarboxylic acid (HMFA) was isolated from the soil. When HMF was incubated with this microbe for 1 day, the absorbance at 283 nm, the absorption maximum of HMF, decreased by 99%. This microbe also decomposed furfural by about 97%, but not 2-furancarboxylic acid or acetylfuran. After food samples with added 0.01% HMF were incubated with *P. syringae* SF 4-17, the amount of HMF in each sample was estimated from the absorbance at 283 nm before and after cultivation. The amounts of HMF of heated orange juice and caramel were estimated to be about 2 mg% and 900 mg%, respectively.

**Keywords:** 5-hydroxymethylfurfural (HMF), microbial oxidation, screening, *Pseudomonas syringae* pathovar *cannabina* 

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