

**Table S1.** Decomposition-related microbes and enzymes inhibited by PSMs from herb extracts, based on the literature.

Extracts of medicinal herbs	PSM detected/the inhibited microbes or enzyme*	Reference number
<i>T. mongolicum</i>	Quercetin/ <i>Bacillus</i> spp.	[38]
	Pinene/ <i>Bacillus subtilis</i>	[36]
<i>C. bungeana</i>	Linalool/ <i>Bacillus circulans</i> ; <i>Pseudomonas</i> spp.; <i>Aspergillus oryzae</i>	[37]
	Pinene+Linalool/ <i>Coriolus versicolor</i> ; <i>Gloeophyllum trabeum</i>	[39]
	$\beta$ -sitosterol/ $\beta$ -glucosidase; phosphatase; protease	[14]
<i>M. haplocalyx</i>	Pinene/ <i>Bacillus subtilis</i>	[36]
	Myrcene/protease; $\beta$ -glucosidase	[14]
<i>H. cordata</i>	Quercetin/ <i>Bacillus</i> spp.	[38]
	Pinene/ <i>Bacillus subtilis</i>	[36]
	Linalool/ <i>Bacillus circulans</i> ; <i>Pseudomonas</i> spp.; <i>Aspergillus oryzae</i>	[37]
	Pinene+ Linalool/ <i>Coriolus versicolor</i> ; <i>Gloeophyllum trabeum</i>	[39]
	Caryophyllene+Linalool+Myrcene+Pinene/ <i>Pseudomonas</i> spp.; <i>Bacillus</i> spp.; <i>Aspergillus</i> spp.	[14]
	Myrcene/protease; $\beta$ -glucosidase	[14]
<i>A. sieboldii</i>	-	-
<i>L. japonica</i>	Camphor/ <i>Bacillus subtilis</i>	[34]
	Borneol/ <i>Mucor racemosus</i> ; <i>Aspergillus niger</i>	[35]
<i>N. cataria</i>	$\beta$ -sitosterol/ $\beta$ -glucosidase; phosphatase; protease	[14]
<i>G. pentaphyllum</i>	Linalool/ <i>Bacillus circulans</i> ; <i>Pseudomonas</i> spp.; <i>Aspergillus oryzae</i>	[37]
	$\beta$ -sitosterol/ $\beta$ -glucosidase; phosphatase; protease	[14]
	Pinene/ <i>Bacillus subtilis</i>	[36]
<i>P. vulgaris</i>	Linalool/ <i>Bacillus circulans</i> ; <i>Pseudomonas</i> spp.; <i>Aspergillus oryzae</i>	[37]
	Pinene+Linalool/ <i>Coriolus versicolor</i> ; <i>Gloeophyllum trabeum</i>	[39]
	Myrcene/protease; $\beta$ -glucosidase	[14]
	$\beta$ -sitosterol/ $\beta$ -glucosidase; phosphatase; protease	[14]

\*This table only lists the inhibited microbes and enzymes and the corresponding PSM or mixture containing given PSM compositions (represented as A+B) based on a review of the existing literature.