## Supplementary Table 1. U-HPLC analysis of CM-β-MOS mixture generated from copra meal after ManB-1601 hydrolysis

PeakC-β-MOS (DP)RetenNumber		Area	Height	
1	3.581	39649	2933	
2	5.582	1633884	57854	
2	6.398	155683	17531	
3	8.138	1389164	75617	
4	10.283	1169958	59585	
	1 2 2 3	1 3.581   2 5.582   2 6.398   3 8.138	1 3.581 39649   2 5.582 1633884   2 6.398 155683   3 8.138 1389164	

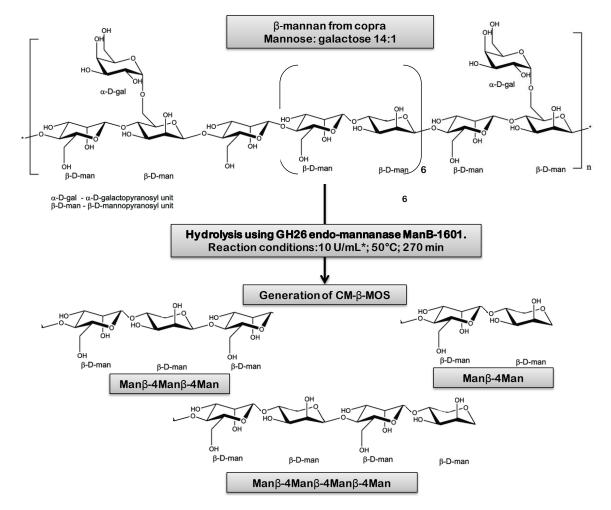
DP: Degree of polymerization

SCFA (relative %)						
Acetic	Propionic	Isobutyric	Butyric	Isovaleric	Valeric	
acid	acid	acid	acid	acid	acid	
100.0	ND	ND	ND	ND	ND	
100.0	ND	ND	ND	ND	ND	
100.0	ND	ND	ND	ND	ND	
100.0	ND	ND	ND	ND	ND	
100.0	ND	ND	ND	ND	ND	
100.0	ND	ND	ND	ND	ND	
100.0	ND	ND	ND	ND	ND	
	acid 100.0 100.0 100.0 100.0 100.0	acid acid   100.0 ND   100.0 ND	Acetic   Propionic   Isobutyric     acid   acid   acid     100.0   ND   ND     100.0   ND   ND	AceticPropionicIsobutyricButyricacidacidacidacid100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND100.0NDNDND	AceticPropionicIsobutyricButyricIsovalericacidacidacidacidacid100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND100.0NDNDNDND	

## Supplementary Table 2. Production of short chain fatty acids by *Lactobacillus* sp. in fermentation broth supplemented with CM-β-MOS mixture

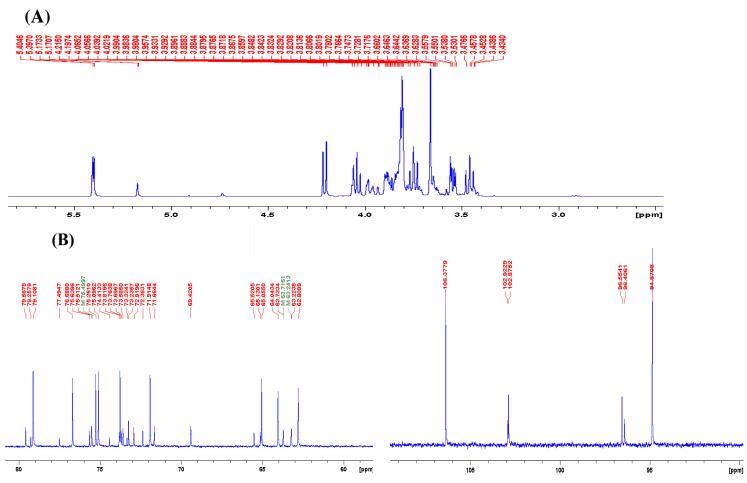
ND: Not detectable

**Supplementary Figure 1:** Schematic representation of the copra meal  $\beta$ -mannan hydrolysis by ManB-1601

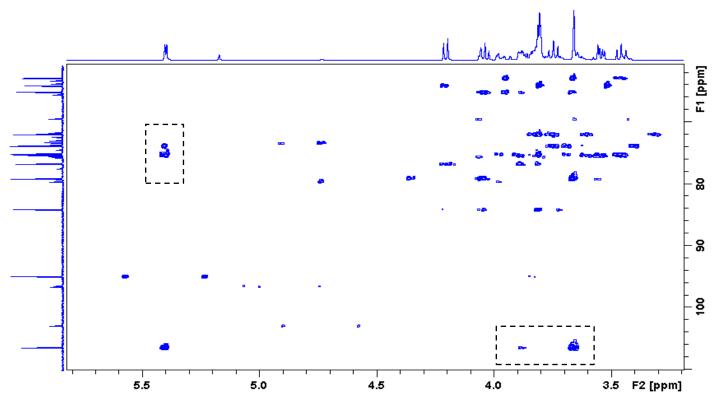


\* Further, increase in enzyme concentration (100 U/mL) marginally did not lead to corresponding increase in the oligosaccharide yield (0.3-fold higher; 334.5 mg/g substrate).

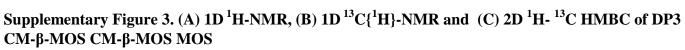
Supplementary Figure 2. (A) 1D <sup>1</sup>H-NMR, (B) 1D <sup>13</sup>C{<sup>1</sup>H}-NMR and (C) 2D <sup>1</sup>H- <sup>13</sup>C HMBC of DP2 CM- $\beta$ -MOS CM- $\beta$ -MOS MOS

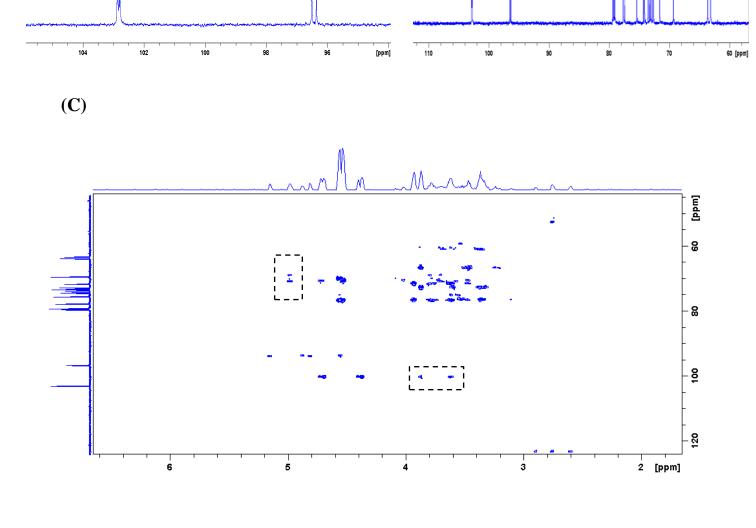


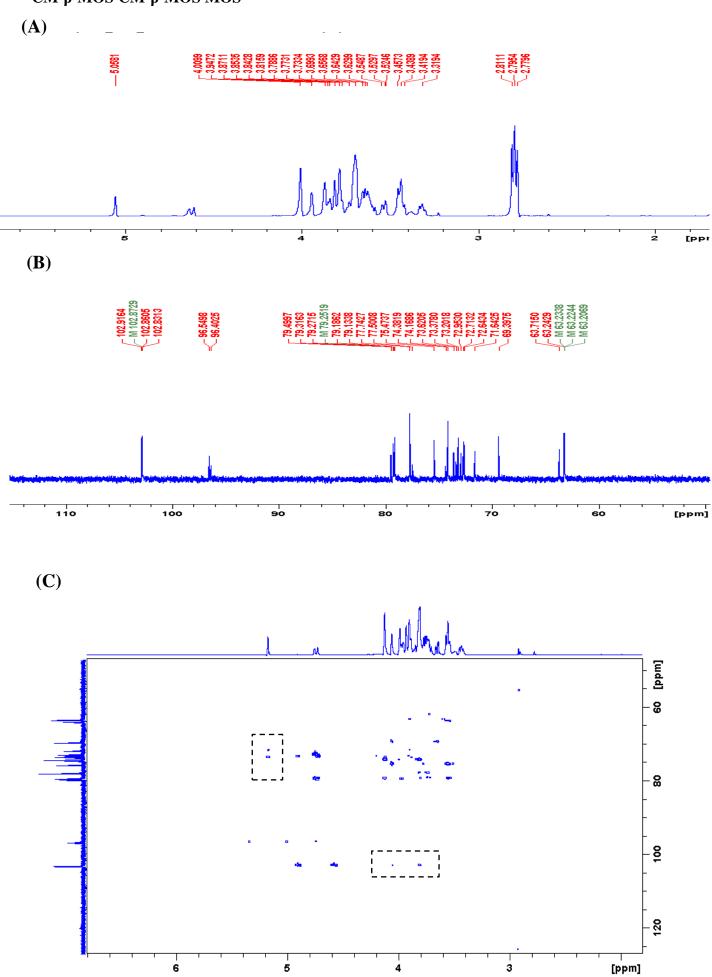
**(C)** 



(A) 71/17/2 71/17/2 71/17/2 71/25/2 71/ - 2.9466 <u>+</u>\_\_\_\_\_ 5.5 5.0 4.5 4.0 3.5 4.2 4.0 3.4 3.0 [ppm] 3.8 3.6 [ppm] **(B)**  $\leftarrow^{102.8693}_{102.8169}$ 63.2091 63.2091 63.1574 56.5091 92444 66444 69447 69.3531 102.8693 102.8169 102.7800 ----- 96.5091 ----- 96.3566







Supplementary Figure 4. (A) 1D <sup>1</sup>H-NMR, (B) 1D <sup>13</sup>C{<sup>1</sup>H}-NMR and (C) 2D <sup>1</sup>H- <sup>13</sup>C HMBC of DP4 CM- $\beta$ -MOS CM- $\beta$ -MOS MOS