Supplemental material

Microbial lipid production from AFEX™ pretreated corn stover

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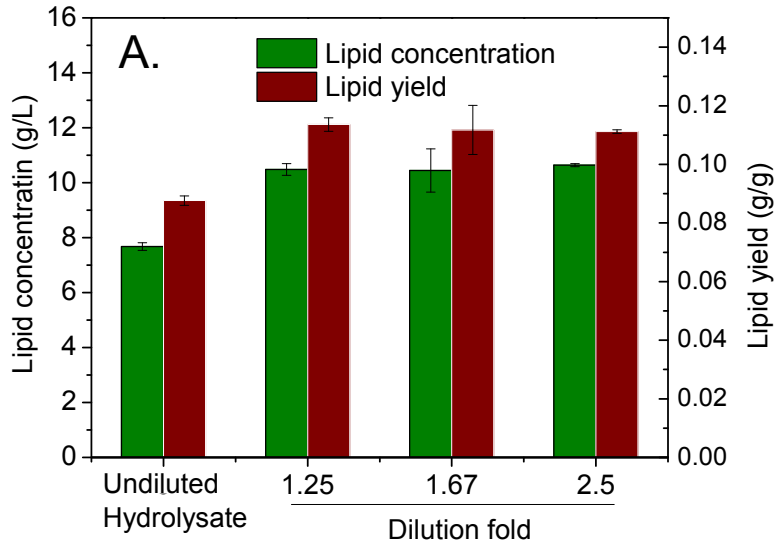
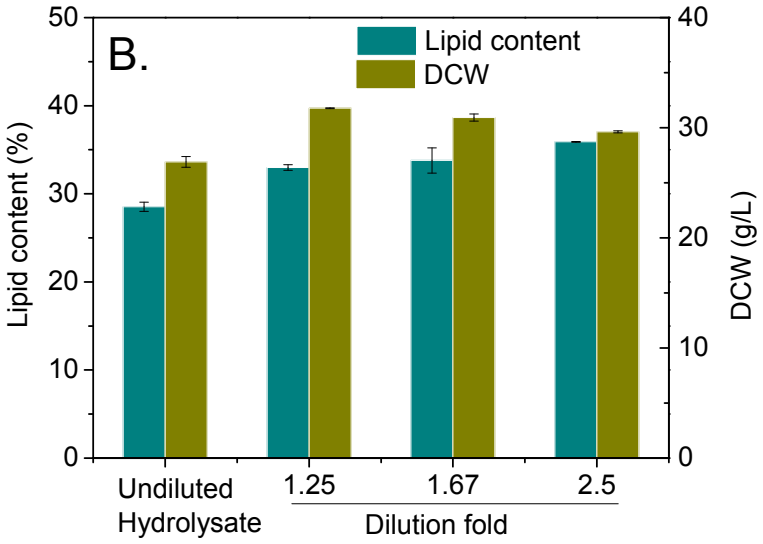
Supplemental Figures

Supplemental Figure S1 Dilution of hydrolysate improved lipid production by *Lypomyces* sp. fermentation. AFEX-CS hydrolysate derived from 6.0% glucan loading enzymatic hydrolysis was diluted by 1.25-fold (40 mL hydrolysate was diluted to 50 mL), 1.67-fold (30 mL hydrolysate was diluted to 50 mL), and 2.50-fold (20 mL hydrolysate was diluted to 50 mL). Glucose and xylose were supplemented to the diluted hydrolysates to make final sugar concentrations the same as in undiluted hydrolysate (glucose:56.5 g/L, xylose:30.5 g/L). Fermentations were performed at 27 °C and initial pH 5.5.





Supplemental Table S1 Major degradation products in AFEX-CS hydrolysate (7.5% glucan loading). The degradation products were analyzed and published in a previous study[6]. The concentrations were calculated based on published data[6].

Degradation products	7.5 % glucan loading AFEX-CS hydrolysate (g/L)
5-Hydroxymethyl furfural (HMF)	0.1555
Lactic acid	0.0770
Aconitic acid	0.9188
Acetic acid	1.1168
Formic acid	0.2209
Acetamide	6.0659
Total phenolic amides	3.5758
Toal pyrazine and imidazole derivatives	0.2289
4-hydroxybenzaldehyde	0.0225
Vanillin	0.0472
p-coumaric acid	0.2616
Ferulic acid	0.0250

([6]Chundawat et al, Bioresource Technology, 2010, 101:8429-8438.)