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Fermentation of wet-exploded corn stover for the production of volatile fatty acids

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1 **Fermentation of wet-exploded corn stover for the production of volatile fatty**
2 **acids**

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11 **Abstract**

12 Volatile fatty acids (**VFA**) have been used as platform molecules for production of biofuels and
13 bioproducts. In the current study, we examine the VFA production from wet-exploded corn
14 stover through anaerobic fermentation using rumen bacteria. The total VFA yield (acetic acid
15 equivalents) was found to increase from 22.8g/L at 2.5% total solids (TS) to 40.8g/L at 5%TS. It
16 was found that the acetic acid concentration increased from 10g/L to 22g/L at 2.5% and 5%TS,
17 respectively. An increased propionic acid production was seen between day 10 and 20 at 5%TS.

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