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Co-ensiling of straw with sugar beet leaves increases the methane yield from straw

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ABSTRACT

This study examined the effect of co-ensiling of wheat straw and sugar beet leaves on the biochemical methane potential (BMP) by both lab-scale and pilot-scale co-ensiling. BMP was increased by co-ensiling, and the increase ranged from 19 to 34 % after 10 months of co-ensiling in lab-scale and from 18 to 32 % after 6 months of co-ensiling in pilot-scale. No effluent run-off was found through pilot-scale co-ensiling and there was a mass loss of only 0.1 %. The study demonstrates that co-ensiling of straw and green biomass has potential as biological pretreatment and for avoiding effluent run-off from pure beet leave silage.

1. Introduction