

Researchers convert grass into biofuel

April 3 2017



Credit: Ghent University

Researchers at Ghent University (Belgium, Europe) have developed a process that turns grass into biofuel.

In the quest of more sustainable fuel types, scientists at Ghent University have developed a way to turn [grass](#) into [biofuel](#). Will we soon drive on 'grassoline?'

"Until now, grass has mainly served as feed for animals. But apart from that, grass can also be used as biofuel. Due to its vast abundance, grass is the perfect source of energy," scientist Way Cern Khor says. During his Ph.D. research at Ghent University, Belgium, he investigated methods that can disintegrate and treat grass until it can be used as a fuel.

How it works

To improve its biodegradability, the grass is first pretreated, and then bacteria are introduced. The bacteria convert the sugars in the grass into [lactic acid](#) and its derivatives.

This lactic acid can serve as an intermediate chemical to produce other compounds such as [biodegradable plastics](#) (PLA) or fuels.

The lactic acid then was converted into caproic acid, which was further converted into decane, which can be used in aviation fuel.

Work in progress

Although it might sound revolutionary, there's still a lot to do before this becomes practical. Right now, the amount of biofuel that can be made from grass is still limited to a few drops. The current process is very expensive, and engines would have to be adapted for this new kind of fuel.

"If we can keep working on optimizing this process in cooperation with the [business world](#), we can bring down the price. And maybe in a few

years, we can all fly on grass," Khor concludes.

Provided by Ghent University

Citation: Researchers convert grass into biofuel (2017, April 3) retrieved 20 April 2024 from <https://phys.org/news/2017-04-grass-biofuel.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.