

Lactic acid from leek green



Crop

Leek

Allium ampeloprasum var. *porrum*

Croppart

Leaf

Application area

Fine chemicals

Status

Development stage



Relevant plant compounds

carbohydrates

Description

Students from HAS university of applied sciences conducted research on behalf of 'Het Groentenhof', a leek producer from Flanders. 2.5 tons of leek green is produced daily, during processing of leek. Leek green is a residual product and is currently used as green manure. However, the effect on the use of artificial fertilizers is limited and it still contributes to greenhouse gas emissions and leaching of nutrients. Lactic acid production through fermentation could be a good alternative to use the leek green. Therefore, the challenge of the students was to study how to produce as much lactic acid through fermentation of leek green.

Pros and cons

-  Upgrading the value of a very important residual stream in Europe
 -  Circular economy
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Used conversion methods

Biochemical processes

Aerobic/ Anaerobic fermentation

Resources

<https://has.nl/nl/has-food-experience/foodjaarboek/2019/green-tech/future-leek-green>

Initiative website