

New products from sugar beet pulp



Crop

Sugar Beet

Beta vulgaris subsp. vulgaris cultivar Altissima

Croppart

Roots / Tubers

Application area

Materials

Fine chemicals

Status

Research stage

Relevant plant compounds

fibres

pigments

Cellulose

Sugars

Aromats

organic acids

Description

By using multiple extraction techniques, PULP2VALUE will extend the high value products extracted from sugar beet sidestreams, isolating microcellulose fibres (MCF), arabinose (Ara) and galacturonic acid (GalA).

The project will demonstrate an integrated and cost-effective cascading bio-refinery system to refine sugar beet pulp and identify applications for approximately 65% of its mass in high value markets, increasing its current value by as much as 20-50 times.

Pros and cons

-  Upgrading the value of a very important residual stream in Europe
 -  create awareness about the opportunities of bio-based materials
 -  New product on a very competing market
 -  Challenges in upscaling the product
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Used conversion methods

Mechanical-Physical processes

Extraction
Fiber separation

Chemical processes

Oxidation

Resources

<https://www.bbi-europe.eu/projects/pulp2value> Initiative website