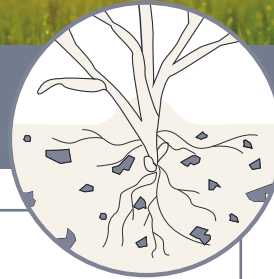


GO-GRASS

Grass-based circular business models
for rural agri-food value chains

PRACTICE ABSTRACT



German Demo

The objective of the German GO-GRASS demo-site is to convert low nutritional quality grass from the Lower Oder Valley National Park wetlands into biochar. The partner NUO is carrying out this DEMO together with farmers from the region and with technical, scientific and business advice from the ATB (Leibniz Institute of Agricultural Engineering and Bioeconomy).

Lower Oder Valley is the only wetland national park in Germany with extensively managed polder grasslands and is an internationally protected area for birds. The grass from these areas can be harvested only after the ground breeding birds have left the region. This happens every year at the end of August. By this time, the grass in the polder meadows is heterogeneous, in parts strongly lignified (rigid) and its nutritional value is too low to be used as animal feed or feedstock for biogas production. The harvested grass is therefore mostly used as bedding material for livestock.

The German demo-site valorises the late-harvested grass into biochar through the process of pyrolysis (thermal decomposition in an inert atmosphere) or hydrothermal carbonisation. The biochar can be applied site-specifically as a soil amendment to agricultural fields outside the National Park. This process increases the fertility and water holding capacity of the soil. The biochar can be mixed with compost, biogas digestate or manure to enrich the char particles with nutrients before it is applied. This conversion of the grass to a stabilised char can contribute to capturing and storing carbon in the soil, therefore increasing its fertility. Once implemented, this innovation can also be used to valorise other types of lignified biomasses e.g. from urban parks, nutrient-poor grasslands and even roadsides.



Further information

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Partners



This research project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°862674.

