Call text – Bioenergy and green materials 2026

Lantmännen Research Foundation supports research that utilise the potential in the entire agricultural process chain contributing to a more bio-based society. The primary focus is on raw materials from cereals and pulses. Applications should, where relevant, include a description of scale-up and techno-economic analysis. The sustainability aspect of new processes should also be considered. If you have an idea for a project, we would prefer that you contact us before you submit your application.

Bioenergy and biorefineries of the future

Energy and fuel components derived from environmentally smart and green sources are necessary to achieve a fossil free agriculture and society by 2050. Our goal is to create a project portfolio with the aim of both improving existing products and developing new energy products, preferentially using new raw materials and/or production processes.

Current research areas:

- Bio-based components for diesel and petrol-based fuels, including ethers such as ETBE.
- Bio-based and sustainable components for lubricants (base oils), coolants or other fluids.
- Bio-based fuels for agricultural machinery that preferably can be used in today's diesel engines without modification.

Note that it is of great important to investigate how new bio-based components affect the properties of the final product in intended applications.

Green materials and biochemicals

Lantmännen's biorefineries and mills produce a wide range of products based on oats and wheat, and in the near future also from peas and faba beans. Many of these are potential raw materials in the development of, for example, bio-based binders/adhesives, polymers, oils, fuel components and packaging material.

Current research areas:

- Next generation ester-based bio-oils for use in agriculture and forestry.
- Bio-based and degradable lubricants.
- Bioethanol or wheat starch as raw material in green materials and bio-based chemicals.
- Recyclable and environmentally sustainable packaging materials.

Increased value in product streams and side streams

Cereals, beans and peas contain components such as starch, protein, fibre, cellulose and hemicellulose, which all can potentially be used in new, innovative applications.

Current research areas:

- Innovative applications for starch from wheat, peas and faba beans.
- New applications for utilizing or sequestering biogenic carbon dioxide over longer periods (e.g. in building materials).
- Fibre-rich fractions such as wheat bran, oat husks and pea husks as raw materials for renewable materials and bio-based chemicals.