

Brokerage Event

Food Security | Sustainable Agriculture and Forestry |
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BioHorizon



Sustainable Food Security

Soil Microorganisms – for Sustainable Agriculture

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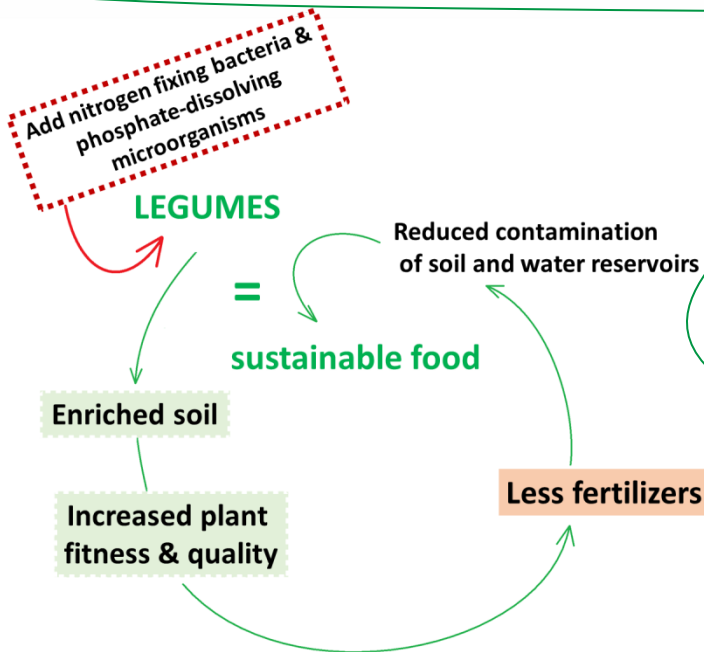
www.ncp-biohorizon.net

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Study the **beneficial effect** of **soil microorganisms** on plant **growth**, **resource uptake** and contribution to **soil enrichment**.

Develop a **'ready-to-use' product**, containing nitrogen-fixing bacteria and phosphate-solubilizing microorganisms.



We seek:

Research **partners** with whom to further develop the idea and form a consortium; **test** different **microorganisms**, their **effect** on **legumes** and **soil quality**; exchange nitrogen-fixing and phosphate-solubilizing microorganism strains, test various microorganism combinations under **different climate conditions**; find the most efficient microorganism combination.

Companies interested in developing microbial inoculants.

SFS-01A-2018: **Small organisms, big effects for plants - Belowground biodiversity interaction with plants (RIA)**



Possible roles of the Faculty of Agriculture, **Institute of Soil and Plant Sciences**

- **Collection** of nitrogen-fixing bacteria and phosphate-dissolving **microorganism strains**
- **Previous research** has been conducted to test the effect of these microorganisms
- Modern **infrastructure** – plant physiology, microbiology, molecular biology laboratories
- **Greenhouses** for experiments under controlled conditions and **experimental fields**
- **Cooperation** with Latvian **farmers**
- Microorganism strain characterization (strain genetic diversity, effect on plant yield, soil quality analyses)
- Contribution to the development of a commercially utilizable prototype of microorganism
- See also: <http://www.llu.lv/en/research-fields>

We work in a close collaboration with other faculties, especially with the Faculty of Food Technology (<http://www.llu.lv/en/faculty-of-food-technology>), Institute of Horticulture (<http://www.lvai.lv/ENG/index.html>), Institute of Agricultural Resources and Economics (<http://www.arei.lv/en/>)

We have previous experience working in the FP7-KBBE project EUROLEGUME.





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