

## Popular scientific project description for project funded by Ekhagastiftelsen

Popular scientific project description is to be submitted within 2 months of project grant.

Application number:	2021-69
Project title:	Pilot: Microbial diversity in agricultural systems and its effects on the human microbiome. An exploratory basis for follow-up research
Receiver of grant (name, address):	Louis Bolk Institute Kosterijland 3-5 NL-3981 AJ Bunnik The Netherlands
Contact / project manager:	Ir. Peter Keijzer
Project start (yyyy-mm-dd): *	2021-10-15
Project end (yyyy-mm-dd): *	2022-12-31
By Ekhagastiftelsen granted sum:	1.000.000 SEK

Project description: (max 150 words)

The microbiome is of major importance to human and plant health. Research into plant microbiomes is gaining momentum, but holistic relations between the seed, soil and plant microbiome and human health are still unclear.

This research explores potential differences in microbiome of tomatoes grown organically on living soil or non-organically on inorganic substrate, and after raw consumption subsequent effects in the intestinal tract (in a human gut model). Found differences are then correlated to differences in microbiomes found in production media and tomato plants to know the scope of differences in (organic soil and non-organic substrate) cultivation systems.

In case this pilot indeed proves these differences have a potential impact on human health, a feedback can take place to unravel the causality and adjust cultivation management practices to optimise those health benefits.

*\* Dates for project start and end should be the dates for which the grant is received (Not dates for total project if longer than period for which grant is received)*