

## List of ongoing research at SITES Lönnstorp 2019 / 2020

Project	Responsible	Description
A molecular & phenotypical characterisation of 'touch' responses in cereals	Olivier Van Akken (Lund university)	
Biofer trials	Ola Rickardsson (Gyllenbo Gødning)	Biofer incorporation at different soil depths
Bioinvent	Linda-Maria Dimitrova Mårtensson (SLU)	Generic bio-inventory of functional soil microbial diversity in permanent grassland ecosystems across management and climate gradient
Breeding project of oats	Andreas Hansson (Croptailor AB)	
Control aphids in cereals	Teun Dekker (SLU)	Attraction of lacewings to a biodegradable attracting paste to control aphids in cereals
Cover crops after starch wheat as precursor to sugar beet	Thomas Prade (SLU)	Overview study
DiverIMPACTS	Raj Chongtham Iman (SLU)	Assess diversification of cropping systems for improved productivity, delivery of ecosystem services and resource-efficient and sustainable value chains
Diversified oilseed rape and grain legume production	Ola Lundin (SLU)	Investigate if diversification of oilseed rape and grain legumes through intercropping can reduce pest, disease and weed problem
Domestication of field cress	Mulatu Geleta Dida (SLU)	Developing genomic tools and resources for domestication
Evolutionary bulk of winter barley	Mohammad El-Khalifeh (Nordgen)	
Fertilization experiments in spring wheat with solid fertilizers from Ekobalans and Yara	Hamse Kjerstadius (Nordvästra Skånes Vatten och Avlopp AB)	
Flowers	Johan Stenberg (SLU)	Determine the individual effect of different flowering plant species on pest insects, natural enemies, pollinators and nematodes
GrassRefine	Cecilia Palmberg (SLU)	Develop systems for cropping, processing and characterisation of biomass from grass intercropped with legumes
GROE	David Hansson (SLU)	Crops weed competing properties
Impulse	Ortrud Jäck (SLU)	Investigate the relationship between spatial arrangement of lupin and soybean

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Kernza terminator	Linda-Maria Dimitrova Mårtensson (SLU)	Assess how to terminate Kernza stands with minor loss of carbon build up
Kernza strip	Linda-Maria Dimitrova Mårtensson (SLU)	Monitor the development of biomass production in the Kernza strip over time
Multifunctional resistance in wild strawberries	Johan Stenberg (SLU)	Integrated plant protection, pollination and berry quality
Nitrogen losses from perennial and annual agroecosystems	Alexandra Marie Huddell (Columbia University)	Track the total fertilizer recovery and fate of <sup>15</sup> N-labeled fertilizer to various pools in both annual and perennial wheat crops
Organic fertilizers in rapeseed	Ola Rickardsson (Gyllenbo Gødning)	Use of organic fertilizers in rapeseed
Organic grown lentils	Georg Carlsson (SLU)	Assess food quality and value in organic grown lentils
Perennialization of <i>L. campreste</i>	Mulatu Geleta Dida (SLU)	Developing genomic tools and resources for perennialization
Pest control in strawberry	Johan Stenberg (SLU)	Assess wild resources for climate resilience and pest control in strawberry
Phosphorus efficient agriculture with arbuscular mycorrhizal fungi	Håkan Wallander (Lund University)	Uptake of phosphorus bound to goethite in fields with Kernza/Lucerne and autumn wheat
R0-0701 Plant sequence with sown catch crops	Helena Aronsson (SLU)	
R2-4008, Harrowing and packing	Thomas Keller (SLU)	Assess different harrowing systems and packing
R3-0020 Humus balance in cereal	Gunnar Börjesson (SLU)	Long term experiment
R3-0021 Humus balance in pastures	Gunnar Börjesson (SLU)	Long term experiment
R5- 1220, Sustainable weed management of Blackgrass	Anders TS Nilsson (SLU)	Sustainable weed management of Blackgrass
Recruiting natural enemies in sugar beet fields	Teun Decker (SLU)	Check the biological control, egg laying and distribution of the predator <i>Chrysoperla carnea</i> within the presence of (different) formulation of induced plant volatiles
Regeneration of 100 old cereals varieties	Hans Larsson (Allkorn)	
Regeneration of grasses	Mohammad El-Khalifeh (Nordgen)	

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Regeneration of spring cereals	Mohammad El-Khalifeh (Nordgen)	
ReMIX	Georg Carlsson (SLU)	Redesign European cropping systems based on species mixtures
ResidueGas	Maria Ernfors (SLU)	Develop a new improved method for inventorying N <sub>2</sub> O emissions from crop residues that allow hotspots for such emissions to be identified
Rybs 2020	Anders Carlsson (SLU)	Cultivation of <i>Rybs</i> ( <i>Brassica rapa ssp. oleifera</i> ) of various origins around the world
SAFE	Johannes Albertsson (SLU)	SITES Agroecological Field Experiment
Sugar beet variety trials	Magnus Halling (SLU)	Trials with different varieties of sugar beet
Test of fertilizers for organic farming	Ola Rickardsson (Gyllenbo Gødning)	Test of fertilizers for organic farmig
Winter production of leafy vegetables	Anna Karin Rosberg (SLU)	Growth of leafy vegetables during the winter months in a tunnel