

Katri Joensuu

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Katri Joensuu is an environmental sustainability expert with more than ten years of experience in GHG emission calculation and Life Cycle Assessments related to food, biomass, energy and industrial production systems. Her current research work focuses on assessing the GHG emission avoidance potential of agricultural production systems. Previously she has worked as a sustainability consultant assisting client companies in preparing applications for EU funding for their investments and innovation work, as well as a researcher in projects related to developing LCA methodology and the assessment of environmental impacts of specific products of client companies.

EDUCATION

University of Helsinki, Faculty of Agriculture and Forestry

- Doctor of Science, The Doctoral Programme in Sustainable Use of Renewable Natural Resources (AGFOREE) 2022
- Master of Science, Horticultural Science 2012
- Bachelor of Science, Biology of Plant Production 2010

WORK EXPERIENCE

Agroscope

Wissenschaftliche Projektmitarbeiterin | *Scientific project collaborator* 2025-

- Assessed the GHG emission avoidance potential of agricultural production systems

Spinverse Oy

Consultant 2022-2025

- Assessed the GHG emission avoidance potential related to client EU Innovation Fund grant applications
- Prepared EU funding applications (Innovation Fund, LIFE, Horizon CBE) for client research, innovation and investment projects mainly in Europe
- Assisted in coordination of client research and innovation projects

Natural Resources Institute Finland (Luke)

Research Scientist 2015-2022

- Assessed the environmental impacts of food and agricultural biomass-based bioenergy.
- Developed methodology for including soil carbon changes in the assessment of climate impact of agricultural products.
- Acted as project leader in two customer funded research projects.
- Compiled data about the amounts and reasons of food waste in primary production.
- Participated in the assessment of agricultural emissions in the National greenhouse gas inventory (2015-2017)

MTT Agrifood Research Finland

Research Scientist 2013-2014

- Assessed the environmental impacts of food and agricultural biomass-based bioenergy
- Compiled data about the amounts and reasons of food waste in primary production.

MOST IMPORTANT PUBLICATIONS

Joensuu, K. 2022. Improving the life cycle assessment of agricultural products: Focus on soil quality and nutrient footprint. *Dissertationes Schola doctoralis scientiae circumiectalis, alimentariae, biologicae. Universitatis Helsinkiensis*. <https://helda.helsinki.fi/handle/10138/345767>

Joensuu, K., Kotilainen, T., Räsänen, K., Rantanen, M., Usva, K. & Silvenius, F., 2024. Assessment of climate change impact and resource-use efficiency of lettuce production in vertical farming and greenhouse production in Finland: a case study. *The International Journal of Life Cycle Assessment*, pp.1-13. <https://link.springer.com/article/10.1007/s11367-024-02343-5>

Joensuu, K., Rimhanen, K., Heusala, H., Saarinen, M., Usva, K., Leinonen, I., & Palosuo, T. 2021. Challenges in using soil carbon modelling in LCA of agricultural products—the devil is in the detail. *The International Journal of Life Cycle Assessment*, 26: 1764-1778. <https://link.springer.com/article/10.1007/s11367-021-01967-1>

Joensuu, K., Hartikainen, H., Karppinen, S., Jaakkonen, A. K., & Kuoppa-Aho, M. 2021. Developing the collection of statistical food waste data on the primary production of fruit and vegetables. *Environmental Science and Pollution Research*, 28: 24618-24627. <https://link.springer.com/article/10.1007/s11356-020-09908-5>

Joensuu, K., Pulkkinen, H., Kurppa, S., Ypyä, J., Virtanen, Y. 2018. Applying the nutrient footprint method to the beef production and consumption chain. *The International Journal of Life Cycle Assessment*. <https://doi.org/10.1007/s11367-018-1511-3>

Statistics Finland 2017. Greenhouse gas emissions in Finland 1990 to 2015. National inventory report under the UNFCCC and the Kyoto protocol. (Agriculture (CRF 3) pp. 207-262).

CONFERENCE PRESENTATIONS

Poster presentation at the 12th International Conference on Life Cycle Assessment of Food. 13.-16.10.2020, Virtual: **Joensuu, K.**, Harrison, E., Hartikainen, H., Kymäläinen, M., Kivimäki, S., Pirttijärvi, T. Climate impact of house cricket (*Acheta domesticus*) production for human consumption.

Oral presentation at the 7th International Conference on Sustainable Solid Waste Management. 26-29 June 2019, Heraklion, Greece: **Joensuu, K.**, Hartikainen, H., Karppinen, S., Jaakkonen, A.-K., Kuoppa-aho, M. Developing statistical food waste data collection on the primary production of fruits and vegetables.

Oral presentation at the Sustainability science days 2019: Making Use of Sustainability Science. 9.-10.5.2019, Aalto University campus, Espoo, Finland: **Joensuu, K.**, Harrison, E., Hartikainen, H. 2019. Sustainability of house cricket (*Acheta domesticus*) production for human consumption.

Oral presentation at the 10th International Conference on Life Cycle Assessment of Food. 19.-21.10.2016, Dublin, Ireland: **Joensuu, K.**, Pulkkinen, H., Kurppa, S., Ypyä, J., Virtanen, Y. Modelling Nitrogen and Phosphorus Footprints, Case Finnish Beef Chain.

LANGUAGE SKILLS

Mother tongue:	Finnish		
<u>Other languages</u>	<u>Understanding</u>	<u>Speaking</u>	<u>Writing</u>
English	B2	B2	B2
German	B1	B1	B1
Swedish	B2	B2	B2
Italian	A1	A1	A1

OTHER SKILLS

- Life cycle assessment
- Microsoft office, SimaPro, SPSS