



UNISECO



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Agro-ecological diversification to produce more food from ruminant farms in Sweden: possibilities for economic and environmental sustainability

Photo: Kajsa Resare Sahlin

Understanding and Improving the Sustainability of Agro-ecological Farming Systems in the EU

ISSUE BRIEF

Specialized dairy and meat farms have the potential to improve their economic resilience and environmental sustainability by including more crops for direct human consumption, as well as integrating agro-ecological practices.

In ruminant farming, human edible feed is often imported, and manure and additional mineral fertiliser is used to produce feed. This leads to inefficient use of resources, as well as low environmental and economic sustainability on the farm. By using mainly forage feed for the ruminants and growing more crops for direct human consumption, sustainability can be increased. However, farmers face several barriers when trying to change and diversify their production.

Profitability and knowledge barriers

One barrier is the lack of selling opportunities for crops for direct human consumption, but when such opportunities exist profitability can be improved. However, growing new types of crops involves a risk and potential investments in new machinery. Another barrier is the personal knowledge and beliefs of livestock farmers, who might lack the knowledge and support to produce crops for direct human consumption.

Risk sharing in the value chain

In order to financially enable increased diversification and increased sustainability at farm level, better prices are needed for the products delivered from the farm. One possibility to achieve this is different types of price premium systems with private actors where additional payment is given for certain sustainability-enhancing measures, as well as long-term contracts. Direct sales to consumers are another possibility. Policy can also to a greater extent encourage the production of more plant-based foods through research, collaborative projects and investment support..

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Related to UNISECO case study:

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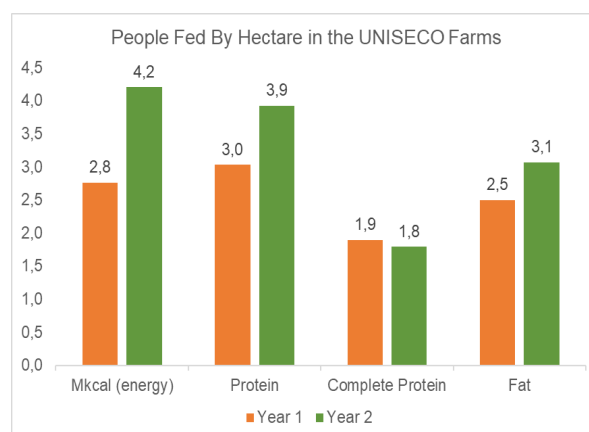
Spring kick-off meeting for Swedish case study

Networks are important for sharing experiences and to get inspiration.

Photo: Kajsa Resare Sahlin

More food and reduced environmental impacts

Agro-ecological methods, including the integration of animal husbandry and the cultivation of human vegetables, can improve the sustainability of the farm by reducing the environmental impact while producing more food. When farmers in this project started to grow and sell more crops for direct consumption, the amount of calories, protein and fat produced per hectare increased on average, but the variation between the farms was large.



Collaboration between farmers, as well as between farmers and other actors of the value chain, can help farmers in their diversification efforts. It distributes risk and reduces the feeling of isolation, and ultimately increases both profitability and resilience on the farm. At the societal level, it has the potential to increase the number of people fed per hectare and to pay farmers for their sustainability improvements.

Further information

Agro-ecological diversification to produce more food from ruminant farms: <https://uniseco-project.eu/case-study/sweden>

ABOUT UNISECO:

UNISECO is a European research project aiming to develop innovative approaches to enhance the understanding of socio-economic and policy drivers and barriers for further development and implementation of agro-ecological practices in EU farming systems.

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<https://cordis.europa.eu/project/id/773901>

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