Landbauforschung

Journal of Sustainable and Organic Agricultural Systems

Landbauforschung *Journal of Sustainable and Organic Agricultural Systems* is a peer-reviewed scientific journal publishing original research results and discussions on developments towards sustainable agricultural systems. Interdisciplinary approaches are welcome.

Landbauforschung is indexed in JCR, CAB International, Science Citation Index Expanded, Current Contents – Agriculture, Biology & Environmental Sciences, Scopus, Web of Science.

Call for Papers and Opinions – First Issue 2019

Exploration and mitigation of greenhouse gas emissions in ruminant and grassland systems.

In the first issue of Landbauforschung in 2019 we focus on '*Exploration and mitigation of greenhouse gas emissions in ruminant and grassland systems*'. Peer-reviewed original research results and position papers from all science disciplines shall illustrate options and views for the future integration of these systems in a climate friendly agriculture.

We are in a situation where the pure numbers of ruminants, their methane emissions, their worldwide feedstuff demand from arable systems, improper and inefficient use of their excrements and growing markets for meat and milk make ruminant systems one of the biggest sources for greenhouse gas emissions in agriculture. We also face many grassland systems that are overfertilised, overstocked and overgrazed and also destroyed due to missing concepts for their use under protection of their ecosystem services and soil carbon stocks. This additionally contributes to GHG emissions.

In ruminant production various levels of intensity are present. In organic as in conventional farming systems high quality roughage is the basis for high productivity. Management skills and additional energy input, e.g., for the production of concentrates, can increase productivity. Also low input grazing systems with low stocking density can be found in rangeland systems worldwide. Concepts for sustainable intensification focus on an increase in productivity to lower emissions per unit of output. The greenhouse gas balances of those systems are strongly dependent from site, farmers' skills and management. In grassland other options might be discussed to avoid greenhouse gas emissions: Balancing fertilisation, creating low input areas and protecting biodiversity, rewetting peat land, adapting stocking rates, creating silvo-pastoral systems or the using of biomass for generation of bioenergy.

Do we have applicable knowledge on mechanisms leading to reduced greenhouse emissions along the whole process chain in ruminant and grassland production under consideration of possible world-wide and local trade-offs and win-win situations? And what are consumers' role and political options to stimulate a climate friendly development?

We are seeking answers from all science disciplines and would like to stimulate further discussions on the multi-faceted role of ruminants and grassland in today's agriculture and its importance in scenarios to mitigate climate change.

We would be very pleased if you could contribute to the coming up issue on the *Exploration and mitigation of greenhouse gas emissions in ruminant and grassland systems*.

The journal will publish (a) original research results and (b) science-based position papers on new, or possibly disruptive, developments in sustainable agricultural systems.

Please find more information at www.landbauforschung.net.

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