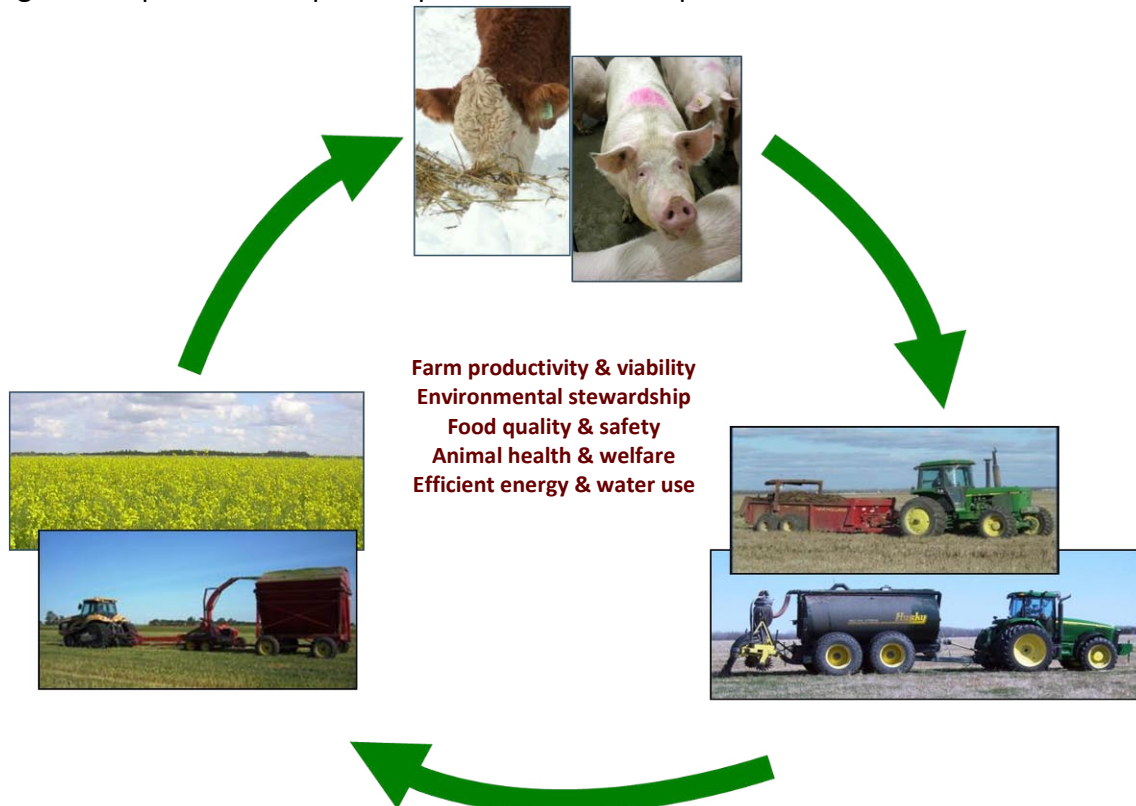


NCLE Research: Looking at the big picture - the whole is more than the sum of its parts

The National Centre for Livestock and the Environment (NCLE) is a multi-disciplinary research team dedicated to integrating livestock and cropping systems to improve the sustainability of both. With the focus on capturing synergies within the whole system, each researcher on the team brings specialized knowledge and experience - important pieces of the whole picture.



The NCLE research program is based on linkages between livestock and crop production such as manure and soil management and growing crops to feed livestock. We explore opportunities to strengthen the connections between beef cattle, dairy cattle, pig and poultry production systems and crop production for food, feed, fuel and fibre from our lands. Along this pathway we attempt to improve multiple aspects of farm productivity and viability, environmental stewardship, human and animal health, and efficient use of our resources in agricultural production and to understand how multiple components of the entire system respond to changes in management.

Some Current Projects

- Sustainable Agriculture Systems Modeling: Numerous model development studies are underway at NCLE. For more information, please contact Ermias Kebreab (ermias_kebreab@umanitoba.ca)
- Reclaiming phosphorus from liquid pig manure as struvite and implications for use as fertilizer. For more information, please contact Nazim Cicek (nazim_cicek@umanitoba.ca).
- Sow longevity and housing environment: Development of an economic predictive model. For more information, please contact Gary Johnson (gary_johnson@umanitoba.ca).

For a complete list of our research, visit <http://umanitoba.ca/afs/ncle/ResearchProjects.html>

Feature Project

What are grasslands *really* worth?

Manitoba cattle producers see the land as more than a collection of soil, stones and vegetation. Along with a valuable source of low-cost feed for their cattle, they see grasslands as a key part of an ecosystem – a habitat for native plant species, grassland birds and wildlife, a landscape suited to retaining soil, capturing water and storing carbon. But without a dollar value for this intrinsic value of grasslands, land management decisions are largely based on short term agricultural productivity and commodity economics and do not account for this as-of-yet non-quantified value.

Prompted by a growing awareness of the ecological value of land and the emphasis on environmental sustainability of agricultural land, a multidisciplinary group of NCLE researchers, with the aid of numerous other government and non-government groups, has set out to determine the multi-functional economic and environmental value of grasslands in Manitoba (our "Multifunctionality of Grasslands" project). Beyond ecological and environmental value, researchers are also investigating potential economic benefits in terms of value-added production and beneficial grazing management strategies. Started in the fall of 2008, this ambitious multi-faceted project has attracted more than \$540,000 in federal, provincial and industry funding and involves researchers from animal, soil, social and economic sciences at the Universities of Manitoba and Saskatchewan.



The Research Team: Kim Ominski, Karin Wittenberg, Ermias Kebreab, Suren Kulshreshtha, Mario Tenuta, Denis Krause, Don Flaten, MAFRI Climate Change Specialist Jenelle Hamblin, plus graduate students, Jennilee Bernier, Gwen Donohoe, Gary Rent and Akililu Alemu. For more information, please contact Karin Wittenberg (km_wittenberg@umanitoba.ca).

Our graduate students are on the move

Jenelle Hamblin (Bouchard), recent MSc graduate from the Dept. Animal Science at the University of Manitoba, begins her new position as Climate Change Specialist with Manitoba Agriculture Food and Rural Initiatives in March. "I am very excited to begin working with producers and government to help reduce greenhouse gas losses from agriculture in Manitoba," says Hamblin. Jenelle's graduate project focused on the relationship between ionophore-induced suppression of enteric methane production and rumen microbial communities. For more information on this project, please contact Denis Krause (denis_krause@umanitoba.ca). Congratulations Jenelle!



If you would like to be on our mailing list, please send an email to Christine_Rawluk@umanitoba.ca.