

ICGC BROWN BAG SERIES

Udder mysteries: soil biodiversity and fertility in novel climate-smart dairy systems in Rwanda

Marie Schaedel

Applied Plant Sciences Graduate Program

Friday, April 21, 12 -1 pm

537 Heller Hall (ICGC)

Live Stream Available @www.icgc.umn.edu

Rwanda's nascent dairy industry has been a focus of government-backed efforts to grow national GDP and alleviate rural poverty. However, environmental externalities associated with livestock farming, such as greenhouse gas emissions and topsoil erosion have raised concerns that dairy production may not be a sustainable avenue for economic growth. Increases in dairy production in Rwanda are also limited by the seasonal availability of high-quality forages, which are crops grown for use as animal feed. Due to global warming, forage crop yields are expected to experience steep declines within the next 30 years. Optimizing land use efficiency and soil nutrient management is therefore critical for agroecological climate adaptation in Rwanda and East Africa more broadly. This seminar will discuss the surprising role of microscopic life in mediating landscape-level processes that affect nutrient cycles, water quality, and greenhouse gas emissions. Ultimately, why should we bother with soil microbes and what can they tell us about sustainable farming strategies in East Africa?



Photo credits: Marie Schaedel

Interdisciplinary Center
for the Study of **Global Change**

UNIVERSITY OF MINNESOTA

For a full list of ICGC Events go to icgc.umn.edu.
For accessibility and other questions please contact
Laura Bell at icgc@umn.edu. ICGC is a unit of the
GPS Alliance.