

CGU_B_02: Agricultural Management and Water Quality in Current and Future Climates

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Session Description

Ensuring future resiliency and sustainability of agroecosystems will require knowledge to anticipate how agricultural management practices will perform in future climates. This open session will bring together research that will improve our knowledge of controls on agricultural water quality outcomes, especially the nutrient content of water leaving farm fields. Of particular interest are contributions to the understanding of soil geomorphic, hydrological and climatic factors that drive nutrient mobilization and transport in cold regions and their modification by agricultural management. Presentations that investigate mechanisms of nutrient release and transport, and those evaluating the performance of agricultural beneficial management practices (BMPs) with respect to water quality are encouraged. Sample topics include identification of nutrient sources, nutrient release and transport in snowmelt and rainfall-generated runoff, impact of antecedent conditions on nutrient mobilization and transport, BMP performance in cold regions (BMPs of interest include but are not limited to: tillage, conversion to perennial forage, tile drainage, water retention, riparian management, fertilizer management, and livestock and manure management practices), seasonality of off-target nutrient transport, scaling from edge of field to streamflow and development of indicators.

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Joint Session Submission: CSSS; CGU, Hydrology