Enhanced Efficiency Urea Fertilizers and Reducing Loss of Nitrogen

Jeff and Rachael discussed their BCIA dues and professional development reporting, with Jeff sharing his experience of being audited for underreporting hours. They reviewed presentation slides for an upcoming webinar about slow-release nitrogen fertilizers, confirming Rachael would handle the introduction and Jeff would present the main content. They also discussed concerns about Genevieve's lack of expertise in water systems and Paris's detachment from project details, noting that their feedback had been more constructive after a recent debrief.

Kootenay Soil Network Winter Forum

The Kootenay Soil Building Network hosted its first winter discussion focused on forage sector soil management, specifically addressing slow-release fertilizers. Jeff Nemo from the Ministry of Agriculture presented an overview of slow-release nitrogen fertilizers, highlighting their benefits for coarse-textured soils common in the Kootenai region. The discussion included introductions from several participants, including Sarah and Mike Malmberg, who shared their expertise in nutrient management and soil fertility, and Samuel DeGrey from the University of Idaho, who offered insights on entomology and pest management. The conversation ended with an announcement of the next session's focus on the economic benefits of nutrient management.

Enhanced Efficiency Fertilizers Overview

Jeff, a regional ecologist with the BC Ministry of Agriculture and Food, presented on enhanced efficiency fertilizers, focusing on polymer-coated ureas and inhibitors. He explained that these products delay nitrogen release and reduce volatilization and leaching losses, but emphasized that they are more expensive and not always suitable for perennial forages in the Kootenay region. Jeff advised producers to first evaluate their current nutrient management practices before considering these high-tech solutions, and recommended conducting small-scale trials if they decide to proceed.

Urea Inhibition and Application Strategies

Sarah and Jeff discussed the practice of combining urea with inhibitor or polymer-coated products for nitrogen management in agriculture. Jeff explained that while this is more common in field crops, there are potential benefits for forage crops, though it requires careful blending and application considerations. Rachael inquired about fertigation and volatilization, to which Jeff responded that liquid urea formulations are susceptible to volatilization but that soil conditions and application methods can influence losses. Jeff

emphasized that nitrogen management benefits are highly site-specific and often require experimental approaches to determine effectiveness.

Nitrogen Management Strategies in Corn

The group discussed nitrogen management challenges, particularly in corn production where over-application is common due to the crop's visible growth response. They explored slow-release fertilizer products and urea inhibitors, noting that while these could be beneficial in certain conditions, their high cost (often 20% more than traditional options) and difficulty in measuring results make them a cautious choice for producers. The discussion concluded with information about the BC Climate Agri-Solutions Fund, which has provided cost-sharing for nitrogen management strategies but is currently closed, with uncertainty about its future re-opening.

Kootenay Agricultural Practices Discussion

The group discussed agricultural practices in the Kootenay region, focusing on cover cropping and irrigation trends. Jeff explained that cover cropping varies by location and farm type, with less common use in transition years and for annual forages. Rachael noted that some dairy producers in Creston are trying fall rye crops, indicating a growing interest in maximizing land use. Samuel mentioned that producers in his area are increasingly interested in growing corn and some are exploring irrigation. The conversation concluded with plans to strategize on recruiting more farmers for the next week's session, where they hope to discuss fertilization practices.

Budget Review and Forage Production

Sarah will review the budget before reaching out to people tomorrow and plans to discuss honorariums as an enticement. Rachael mentioned the intention to have summaries from farms by Brett, Elena, and Jordy for Alain and Brett to read during discussions. Mike will attend a Waldo Stock Breeders director's meeting and encourage attendance at next Wednesday's program. The group discussed the reduced ministry payment for crop losses due to wildlife damage, which could pose challenges for forage producers. Mike noted a significant reduction in forage production in the region over the years, attributing it to the sale of productive ranches to hobbyists.

Agricultural Productivity and Wildlife Challenges

The group discussed declining agricultural productivity in the region, particularly in beef cattle production, due to increasing wildlife depredation and limited funding for compensation programs. Mike explained that the area is not suitable for alternative agricultural enterprises like tree fruits, grapes, or market gardening,

and highlighted the challenges of volatilization losses in fertilizer applications, which can reach up to 20% under certain conditions. The discussion also touched on the reluctance of farmers to adopt minimum tillage practices due to traditional habits and high equipment costs, as well as the need for further engagement with farmers in future discussions.