ADOPT A PROJECT - 20211036

20211036 - 4R nitrogen use in mixed forage stands part 3
Account: Saskatchewan Forage Council
Total Funds Requested: $28,035
Funded: Yes. Continue to support in kind as well.
Amount: $5,600

Objectives:

1) Develop BMPs for 4R on forage
2) Demo use of nitrogen loss inhibitors
3) Include Gastec passive dosimeter tube to measure nitrogen gas losses to compare relative env impact

Why is this Important?

1) 4R principles have been slow to catch on with forages.
2) Nitrogen loss inhibitor products are well regarded in crop production, but limited uptake in forages
3) This project will add another inhibitor, as well as dositubes to better validate results
4) Results in spring of 2020 had good results with inhibitors, with some sites also seeing forage crude protein increase.
5) Extreme drought last year didn't allow for results to shine. Nothing grows, even with fertilizer, if it doesn't rain.
6) Additional sites will be added.
7) These methods can showcase how to grow more forages on the same or less land.
8) Producers are reluctant to use traditional nitrogen as they have significant nitrogen losses.

Methodology:

1) Test soils to note needed fertilizer application
2) Broadcast fertilizer in late April/early May depending on sites (Saskatoon, Swift, Weyburn, Yorkton, and North Battleford
3) Measure nitrogen loss with Dositube
4) Calculate forage yield, forage quality,
5) Compare weather conditions
6) Provide economic analysis

Notes:

We are actively putting together videos and other material to showcase the results from Part 2 - However, due to the drought, they aren't as significant as Part 1. Hence, Part 3

Summary:

Forage producers are reluctant to use traditional nitrogen as they have significant nitrogen losses. Nitrogen loss inhibitor products are well regarded in crop production, but there has been limited uptake in forages. However, previous demonstrations in years with adequate moisture showcased good results, as forage crude protein increased.

This project will add an additional inhibitor, and provide an additional year of data with (hopefully) more precipitation.