Measuring Forage Quality of Hybrid Fall Rye

Project Code: FRG.08.19 Completed: In Progress. Results expected in March 2023.

Project Title:

Forage Potential of Hybrid Fall Rye (HR) in Alberta and Saskatchewan

Researchers:

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Background Barley accounts for a large portion of the silage and greenfeed used on the prairies, but barley is more susceptible to drought, heat stress, lodging and disease than other forages. Hybrid fall rye (HR) has been grown commercially for grain in Canada since in 2015. All fall rye grown and orginating in western Canada up until then was open pollinated (OP). The commercially grown HR varieties are as winter hardy as OP varieties and have yielded as much as 30% more grain, are more uniform, shorter and stress tolerant. Un-replicated "on-farm" trials in southern Alberta indicated high (16 tonne/ha) silage dry matter (DM) yields and very good forage quality (TDN 64%). Forage potential of this new winter cereal has not been tested and compared to winter and spring cereals.

Objectives

Determine the forage potential for HR varieties as a silage and greenfeed source for backgrounding and winter feed for cows compared to open pollenated (OP) fall rye, winter triticale and wheat, spring barley, oat and soft white wheat. What they will do

Researchers will grow six winter varieties; three hybrid rye varieties, (Progas, Bono, and Brassetto), Hazlett open pollinated fall rye, Luoma winter triticale, and Pintail winter wheat. They will also be looking at four summer varieties, Austenson and Canmore barley, Baler oat, and Sadash soft white wheat. All treatments will be replicated in Lacombe, Lethbridge, and Swift Current. Researchers will harvest all crops at 35% dry matter and will record winter survival, incidences of ergot, and other agronomic measurement as well as nutritional qualities and digestibility to indicate forage quality. Researchers will also conduct economic reviews on all forages. Implications

This project will provide additional information around the forage quality and economic feasibility of growing hybrid rye compared to more traditional forages in different climates across the Canadian Prairies.

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