BCRC Beef Science Cluster
Research Facts
IN PROGRESS

Forage Seed Mixtures for Different Regions of Canada FRG.07.10

Project Title: Performance of Forage Mixtures under a Beef Grazing Management System in the Northern Latitudes

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Background: Tame pasture productivity is generally better for mixed species than for species grown in monocultures. Compared to single species pastures, pastures with several forage species are more resistant to weed invasion. Legume – grass mixtures have the added advantage of fixing nitrogen and reducing fertilizer costs. Several new forage cultivars have been selected for their productivity under grazing conditions. Information on pasture seed mixtures needs to be updated to maximize their productivity in Canada.

Objective: To develop simple and complex forage mixtures for long term and low cost beef grazing management systems in different environments.

The objective of the first study is to identify the best simple forage mixtures for each environment. Combinations of one grass (two cultivars each of timothy, Kentucky bluegrass, tall fescue, orchardgrass or meadow brome) grown with either white clover or a cultivar of alfalfa selected for grazing) will be established, and forage yield, seasonality, persistence and forage quality will be assessed under rotational grazing by cattle (Nappan and Kapuskasing) or simulated grazing (Quebec City). The second study will compare complex forage mixtures. Four grass mixtures of either three or four grasses each will be seeded with each of up to three legumes (white clover, alfalfa or birdsfoot trefoil) depending on the particular location. These pastures will be grazed by cattle at Nappan, Brandon and Kapuskasing; grazing will be simulated at Quebec City. Herbage quantity and quality will be assessed during the grazing seasons.

Implications: This research will help develop recommendations regarding forage mixtures that will be appropriate for different regions across Canada.

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