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Cut it, seed it, graze it: Exploring economical methods to reduce woody species encroachment on pastureland in the Cariboo

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In the context of agriculture, woody plant encroachment (WPE) is a phenomenon characterized by woody trees and shrubs displacing palatable forage species such as grasses and forbs. This results in a reduction of forage production and can, in extreme circumstances, limit movement for cattle. In response to growing concerns from producers in the interior of British Columbia, this project was developed to determine economic operationally feasible methods of abatement of WPE. These include mechanical brush cutting, grazing, and seeding with combinations of treatments to inform best practice solutions. To test these management tools, two ranches in the Cariboo had three research sites set up in the summer of 2020. Results will be determined through on the ground sampling of vegetation percent cover, species richness, biomass production, and soil chemical properties combined with aerial drone imagery using multispectral and LiDAR data. Preliminary analysis of data collected during the first year of the project are promising, showing a reduction in shrub cover through grazing and an increase in forb production with seeding treatments. More analysis is required but these results, coupled with final data collection should provide useful information to further understanding of WPE in the Cariboo.

