

Adaptive Management of Winter Elk Feedgrounds in Western Wyoming as a Long-Term Strategy for Reducing Brucellosis in Elk While Maintaining Separation from Cattle: A Work in Progress

JARED D. ROGERSON, *Wyoming Game and Fish Department, Pinedale, WY, USA*

BRANDON M. SCURLOCK, *Wyoming Game and Fish Department, Pinedale, WY, USA*

ERIC J. MAICHAK, *Wyoming Game and Fish Department, Pinedale, WY, USA*

JOHN C. HENNINGSSEN, *Wyoming Game and Fish Department, Jackson, WY, USA*

KATE T. BELINDA, *Wyoming Game and Fish Department, Pinedale, WY, USA*

ABSTRACT Brucellosis is of large economic and management concern in the Greater Yellowstone Ecosystem (GYE) where wildlife remain the last reservoir of the disease in the United States. Wyoming Game and Fish Department (WGFD) management of brucellosis has focused on separation of elk (*Cervus elaphus*) and cattle (*Bos taurus*) through operation of 22 winter feedgrounds, which originated to prevent elk starvation and elk damage. Although feedgrounds perpetuate the spread of brucellosis among elk, they are largely maintained to prevent disease spillover to cattle. Despite efforts, recent brucellosis occurrences in Wyoming cattle during 2004–2008 were linked to feedground elk. Therefore, numerous research projects conducted during 2006–2008 were aimed at developing feedground management strategies that lead to long-term brucellosis reductions in elk. Major research results lead the WGFD to development of the Target Feedground Project, which manipulates feeding management to reduce brucellosis in elk. This project was first implemented in winter 2007–08 and is conducted exclusively at target feedgrounds, where perceived elk-cattle commingling risk is low and there is a high potential for elk to free range in late winter/early spring. The first objective is to reduce elk densities while on feedgrounds by using low-density feeding. The second objective is to reduce duration of high elk concentration by manipulating end-feeding season date through systematic reductions in hay rations in late winter and early spring, with the goal of ending an average of 3–4 weeks earlier than long-term means. Advantages of this project, if successful, are sustainable reductions in elk brucellosis and decreased risk to cattle, lower elk feeding costs, and continued operation of feedgrounds to minimize elk-cattle commingling, elk damage, and sustain elk numbers that meet public expectation. Disadvantages are that the project is not suitable for all feedgrounds and elk on target feedgrounds remain susceptible to new diseases that may arise.