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**REDUCING RELIANCE ON SUPPLEMENTAL WINTER FEEDING IN ELK:
AN APPLIED MANAGEMENT EXPERIMENT AT DESERET LAND AND
LIVESTOCK RANCH**

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Abstract: Wildlife managers have been feeding elk (*Cervus elaphus*) in North America for nearly 100 years. Giving supplemental winter feed to elk can compensate for a shortage of natural winter range and may boost elk populations while also helping to prevent commingling with livestock and depredation of winter feed intended for livestock. However, elk herds that winter on feeding grounds have a significantly higher prevalence of brucellosis than elk that winter “out”. Research suggests that winter feed grounds may also facilitate the spread of Chronic Wasting Disease. Many see the discontinuation of winter feeding programs as a necessary step to decrease the risk of disease outbreaks. My research is focused on using an understanding of elk behavior to develop methods to reduce reliance on supplemental winter feeding in elk without massive population reductions and while keeping human wildlife conflicts at a minimum. I will test the effectiveness of range improvements, strategic cattle grazing, dispersed supplemental feeding, hunting, and herding as tools to distribute and hold elk in desired areas during the winter. I anticipate that through these efforts managers can decrease dependence on supplemental winter feeding and reduce the risks of disease while keeping human wildlife conflicts at a minimum. This research will allow wildlife managers to keep elk populations at or near their current size, while constraining disease outbreak and transmission risks to “acceptable” levels. It will also provide a more complete understanding of winter feeding behavior in large ungulates and may provide assistance in development of winter feeding practices and policies for elk, mule deer, and pronghorn in the west.

Key words: behavior, Brucellosis, *Cervus elaphus*, Chronic Wasting Disease, elk, grazing, habitat improvement, herding, hunting, precipitation, supplemental feeding, Utah, winter feeding.