RESEARCH PROJECT SUMMARY

Project Title: Effectiveness of Roundup© ready alfalfa for nesting habitat and seedbed preparation.

Need: Ring-necked pheasant and waterfowl populations provide bountiful recreational opportunities for residents and visitors of South Dakota, providing a strong economic boost for local economies. This provides strong incentives for the maintenance and sustainability of their populations. With a rapidly changing landscape to agricultural production, primarily due to the loss of CRP, management of remaining grasslands is imperative to the success of upland nesting game birds. Traditional management practices to provide nesting/brood rearing cover involve the use of agricultural crops to prepare tracts of land for grassland restoration, providing negligible benefits for wildlife during this time. New techniques to eliminate the use of agriculture in restorations are being explored, including using Roundup© ready (RR) alfalfa as a means to prepare seedbeds for grassland restoration. RR alfalfa would provide nesting cover as well as an economically feasible way of controlling invasive and noxious weeds during restoration. The effectiveness of using RR alfalfa in grassland restorations and how upland nesting game birds utilize these tracts has been unexplored, however, creating a knowledge gap in our understanding of the best management practices for grasslands. This study aims to close the gap in knowledge and help us manage grasslands for the benefit and sustainability of upland nesting game bird populations.

Objectives: 1. Determine and compare duck nesting success and density between Roundup© ready alfalfa and smooth brome fields.

2. Determine and compare vegetation structure between Roundup© ready alfalfa and smooth brome fields.

3. Determine and compare vegetation characteristics between DNC fields prepared with traditional management techniques and the proposed Roundup© ready alfalfa technique.

Study Location: Central South Dakota

Expected Completion: June 2016

Principal Investigator: Dr. Joshua Stafford, Associate Adjunct Professor and Assistant Unit leader, South Dakota Cooperative Fish and Wildlife Research Unit and Department of Natural Resource Management, South Dakota State University
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