Project: **Invasive Plant Management**

Brief Description: MSU requests funding to develop and implement new management strategies for livestock producers and land managers for the use of small-ruminants in controlling large infestations of non-native invasive plants while maintaining a production system which is profitable. Targeted grazing is a natural approach to vegetation management and landscape enhancement. Besides providing an ecologically sound and economically feasible tool to manage one of the west's most serious environmental threats, this initiative develops and implements new approaches that improves Montana lamb and wool producers' competitiveness in a world economy. Incorporating targeted grazing in integrated natural resource and weed management programs will create additional income opportunities for rural Montana families.

Executive Summary: This project will develop grazing systems to control non-native invasive plants as well as the animal husbandry, management and marketing systems necessary for a sustained sheep and goat industry. Currently, these non-native plants infest millions of acres of farm and public land in 26 northern states. This problem is not just an agricultural issue, it is a societal issue. It represents the single most serious threat to natural habitats. Noxious weed invasion reduces the ecological integrity of land and waters, alters ecosystems, impacts wildlife habitat and threatens the survival of native plants. In many cases, the cost of traditional weed control methods (primarily herbicides) actually exceeds the value of the land.

Project Description: Previous MSU research indicates that small ruminant production can provide land managers an alternate tool in their fight against invasive plants that is more economically feasible and environmentally sensitive compared with traditional weed control methods. Grazing prescriptions for managing large infestations of leafy spurge have been developed and are in the final stages of validation. Current efforts will focus on finalizing spotted knapweed prescriptions on a landscape scale and validating Dalmatian toadflax prescriptions. However, to make this powerful tool sustainable, this initiative also focuses on developing practices that contribute to a profitable sheep and goat industry. This project includes MSU, with industry stakeholders, including sheep producers, county weed districts and supervisors, federal and state land managers, and private land owners.

Congressional Action Needed: An appropriation of $500,000 is requested.

Importance to Montana: Non-native invasive plants are the primary environmental threat to western wildlands. These plants quadrupled their area in the last 10 years. If they continue to spread at their current rate, they will dominate western rangelands in the future. Over 17 million acres of "public land" in the west are infested with noxious weeds with an additional 4,600 acres becoming infested each day. Currently Dalmation toadflax is in an exponential growth phase in Montana, expanding at a rate of 14 percent per year. In Montana, about 8 million acres are seriously infested with noxious weeds. Previous research at MSU indicates that sheep and/or goat grazing offers an additional tool in the fight against noxious weeds in an integrated weed management program.

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