Perceptions of leafy spurge by ranch operators and local decision makers: An update

RANDALL S. SELL, DEAN A. BANGSUND, and F. LARRY LEISTRITZ

Research Scientist, Research Scientist, and Professor, Department of Agricultural Economics, North Dakota State University, Fargo, ND 58105-5636.

Abstract:

This study focused on a four-county area in North Dakota (Bowman and Slope counties) and Montana (Fallon and Wibaux Counties) and represents an update to a similar study, using the same survey that was conducted in 1998. A total of 521 ranch operators and local decision makers (LDM) were surveyed, and 177 completed questionnaires were obtained (34%). The previous questionnaire was distributed to 515 ranchers and LDM in a five-county area in North Dakota (Billings and Golden Valley Counties), Montana (Carter County), South Dakota (Harding County), and Wyoming (Crook County). The survey focused on weed management in general and specifically on the perceptions and attitudes of ranchers and LDM, who may have been directly and indirectly affected by leafy spurge.

Leafy spurge was recognized as the most important weed problem for ranchers and LDM in the four-county area. However, ranchers and LDM in the 1999 survey were less likely to indicate that weeds in general were a major problem for them, or in their area, than respondents to the 1998 survey. The percentage of ranchers in the 1999 survey who indicated having leafy spurge on their ranch was less than the 1998 survey, 41 percent versus 56 percent, respectively. Ranchers in the updated survey area had leafy spurge on approximately 2 percent of operated acreage.

Reasons for not using herbicides included environmental restrictions, inadequate funding, and too large of infestations. Biological control was often not used because the biological agents take too long to work, there was limited access to biological agents, and respondents did not know how to properly use agents. The main reason that ranchers and LDM were not using sheep or goat grazing as a control mechanism was that they lacked the
equipment or expertise to include them in their grazing strategies. Other methods such as tillage, planting competing grasses, burning, and mowing were not used because land is not suitable for these methods.

Overall, a vast majority of the respondents were concerned about controlling weeds on rangeland and understood leafy spurge is a long-term management problem. The LDM were more likely than the ranchers to believe that the weed problem in their area was a major problem and that leafy spurge was the most important weed.

The results of this survey indicate that financial constraints on weed control are prevalent. Also, the amount of knowledge needed to adopt various treatment programs appears to be a constraint for both ranchers and LDM. Education and awareness on how to use and where to find biological controls could facilitate more adoption of biological agents to control leafy spurge. Likewise, assistance in obtaining equipment and knowledge of sheep/goat management might enable some managers to use sheep and/or goats to curb further leafy spurge expansion.

The TEAM Leafy Spurge project could enhance adoption of all leafy spurge control methods by addressing concerns exhibited by each of the groups surveyed. By facilitating cooperative efforts between managers of adjoining lands and by pooling resources, perhaps many of the hardships created by leafy spurge can be reversed.