

ECONOMIC IMPACT OF LEAFY SPURGE ON
NORTH DAKOTA WILDLAND

A Thesis
Submitted to the Graduate Faculty
of the
North Dakota State University
of Agriculture and Applied Science

By

Nancy M. Wallace

In Partial Fulfillment of the Requirements
for the Degree of
MASTER OF SCIENCE

Major: Natural Resource Management
Department: Agricultural Economics

December 1991

Fargo, North Dakota

ABSTRACT

Wallace, Nancy M., M.S., Natural Resource Management,
Department of Agricultural Economics, College of
Agriculture, North Dakota State University, December 1991.
Economic Impact of Leafy Spurge on North Dakota Wildland.
Major Advisor: Dr. Jay A. Leitch.

A framework was developed, and an initial estimate was made of the regional economic impact of leafy spurge on wildland in North Dakota. Wildland is land *not* urban or built-up, industrial, or agricultural, which represents approximately 4,899,000 acres, or 10 percent of the state's area. Wildland benefits include wildlife-associated benefits, soil and water conservation benefits, intangible benefits, and other benefits. The biophysical impacts of leafy spurge on wildland outputs were estimated. Direct economic impacts of \$3.7 million and secondary impacts of over \$11.3 million were estimated. As more becomes known about the effects of leafy spurge on wildlife habitat and as the gaps in physical science and data are closed, the estimate of the regional economic impact of leafy spurge on wildland can be refined.