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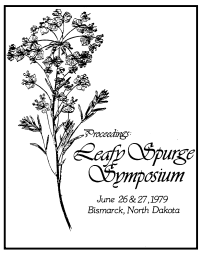


# Preface/Executive summary Leafy Spurge Symposium

## Preface

On June 26 and 27, 1979, about 125 educators, scientists, land managers, farmers, ranchers, legislators and concerned citizens met in Bismarck, North Dakota, to discuss the status of the noxious weed, leafy spurge. The Steering Committee who created the symposium did so in response to widely expressed concern over the advance of leafy spurge.

The symposium was designed with the following five objectives in mind:

- Assess and review the magnitude of the leafy spurge problem and its social and economic impacts.
- Become aware of completed and ongoing research on leafy spurge management.
- Identify needed basic and applied research to manage leafy spurge.
- Determine how various agencies and organizations can coordinate their work on needed basic and applied research to manage leafy spurge.
- Establish a knowledge base for future educational programs concerning management of leafy spurge on public and private lands.

The symposium began with the presentation of technical papers on: The Plant Leafy Spurge; The Magnitude of the Leafy Spurge Problem; Social and Economic Impacts of the Leafy Spurge Problem on Public Lands; Social and Economic Impacts of the Leafy Spurge Problem on Private Lands; Biological Control of Leafy Spurge; Cultural (Mechanical) Control of Leafy Spurge; Chemical Control of Leafy Spurge. These papers are presented in their entirety in this document, immediately following the executive summary.

Following the presentation of technical papers, symposium participants gathered in small groups for detailed discussion of the topics presented. These workshop sessions dealt with the topics of: The Plant Leafy Spurge; Social and Economic Impacts of the Leafy Spurge Problem; Biological Control of Leafy Spurge; Cultural (Mechanical) Control of Leafy Spurge; Chemical Control of Leafy Spurge. The results of the small group

discussions were presented in summary form at the closing session of the symposium. These summaries constitute the latter part of the symposium proceedings. In addition, comments were invited from individual symposium participants. Those comments which have been received are included in the addendum section of the proceedings.

Through this approach, the Steering Committee hoped that symposium participants would be able to constructively address the first four symposium objectives. If successful, the published proceedings of the entire symposium would then provide the basis for the fifth objective, i.e., establish a knowledge base for future educational programs concerning management of leafy spurge on public and private lands. If this document provides such a base, then the entire symposium will have been well worth while.

As a direct response to the expressed concern over leafy spurge, funds allocated to the North Dakota Agricultural Experiment Station have been designated for an increased research program on the weed. Also, a project request will be submitted to the Old West Regional Commission. This request will involve all five OWRC states.

The Steering Committee expresses their sincere appreciation to all of the speakers for their efforts in preparing and presenting the technical papers. We also appreciate the excellent and deep involvement of all participants in the workshop sessions and the closing summary.

The challenge which remains is to take the results of this conference and establish action programs in research and education for more effective management of the noxious weed, leafy spurge.

Edwin H. Amend, Chairman
Associate Director
Cooperative Extension

# Executive summary
# Leafy Spurge Symposium

Leafy spurge is an introduced weed whose populations have greatly increased in North America involving over 2 1/2 million acres. The weed infestations continue to increase at an alarming rate. Farmers, ranchers and land managers are spending tremendous sums of money each year to control the weed with only limited success.

Experience has shown that leafy spurge is not a problem on cultivated lands. Repeated tillage operations, crop rotations and use of herbicides control the weed in the cultivated lands. The weed may become more important as the no-tillage farming concept becomes more widespread. Leafy spurge becomes a greater problem on rangelands and in disturbed areas.

Leafy spurge has quite a socio-economic impact on people. In contrast to its rapid spread in the U.S., in Canada, government assistance programs for leafy spurge control has kept the weed from spreading and the extent of infestation hasn't changed markedly in 20 years. , In order to have an effective program in the U.S., farmers, ranchers and other land managers will need financial assistance and/or incentives to control leafy spurge. Land owners and the general public need to be educated on the severity of the problem, the socio-economic impact and what can be done about the problem. An increased effort should be made to educate those involved on current control technology. Additionally, new and more effective control technology is urgently needed. Both of these efforts will require time, people and additional money.

Presently we need an up-to-date inventory of the actual leafy spurge infestation. This would include who controls the infested land. Incentives must be available to insure a concerted effort of all land owners to control leafy spurge.

Research needs on the leafy spurge problem include: an up-to-date review of leafy spurge literature and research, study of the taxonomy of the leafy spurge complex, study of the ecology of leafy spurge, study of the physiology, especially concerning the dormancy and viability of buds, study of the biological control, and study of the chemical control, especially new application techniques and new chemicals.

It was the consensus of the people in Bismarck that there should be an overall Steering Committee to oversee the research to insure a concerted and coordinated effort on the leafy spurge problem.