Bounty programs – An effective weed education tool

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Introduction

Leafy spurge (Euphorbia esula L.) is one of the most troublesome weeds on rangeland in Montana, North Dakota, and Wyoming. Once established, leafy spurge is difficult to control due to an extensive root system and efficient means of sexual and asexual reproduction.

Rangeland is extensively managed and relatively inaccessible. Often, these conditions enable weeds to establish and spread before they are recognized. Once large acreages are infested, prohibitive costs prevent large-scale use of herbicides. Thus, the key to weed control on rangeland is early detection and treatment.

Creative educational programs that promote awareness, identification, and control are needed to stop the spread of weeds on rangeland. In 1984, a weed “bounty program” was implemented in Stillwater County, Montana. The approach used in establishing this program will be evaluated and guidelines for developing similar programs will be discussed.

Approach

The weed bounty program in Stillwater County was initiated to stop the spread of spotted knapweed. However, similar programs could be developed to address any problem weed on rangeland. The objectives of the program were: (1) to increase public awareness of spotted knapweed; 2) accurately locate and map all spotted knapweed infestations; and 3) control spotted knapweed infestations that were reported.

Guidelines:

Guidelines were developed by the county extension agent and weed supervisor to involve young people with the program. Posters and newspaper articles carried photographs of the “wanted” weed to help youth identify the plant. Live plants were on display at the county extension office. Young people were paid a $5.00 bounty for reporting each spotted knapweed infestation that was not previously plotted on the county weed map.
An additional $50.00 was paid if the “bounty hunter” could persuade the landowner to control the infestation.

In addition, only one claim per ranch could be filed unless infestations were more than 1/4 mile apart. The “bounty hunter” received the same reward regardless of the size of infestation. These two guidelines insured that all infestations were reported to the county extension agent or weed supervisor and located on a map. They also encouraged the “bounty hunter” to work with the landowner to control the infestation. To aid their effort, county spray equipment and control information were provided to “bounty hunters” and landowners. Throughout the program, the county agent and weed supervisor were available to confirm infestations, provide technical assistance, and evaluate control efforts.

**Funding:**

Funds for the bounty program were obtained as an educational appropriation from the county weed control budget. The program was administered by the county extension agent and weed supervisor.

**Program results**

The first year of the bounty program was very successful. More than 65 people were directly involved with the weed control effort. Participants included 14 “bounty hunters”, their parents, agricultural producers, and state and federal employees that assisted the county’s effort to control spotted knapweed.

Thirty-four spotted knapweed infestations were located and recorded on the county weed map. Infestations occurred on private, state, railroad, and federal lands. This base map will be a valuable planning document for future efforts in the county.

Landowners and “bounty hunters” applied control measures to 20 of the infestations during 1984. The county has continued to work with landowners in controlling the spotted knapweed which occurred on the 14 remaining sites in 1985. Publicity concerning the program increased weed awareness on both a county and regional basis.

**Program cost effectiveness:**

It would have cost an estimated $5,670.00 to have county employees locate and control the spotted knapweed infestations. The total cost of rewarding young people through the bounty program was $1170.00 which included the $5.00 “finders” fee and the $50.00 “control” bounty. This program resulted in a savings of $4500.00 to the county weed budget. There will also be long-term financial benefits achieved through the education and involvement of young people in the weed control effort.

The bounty program was continued in Stillwater County in 1985. Since most of the spotted knapweed infestations had been located in 1984, only 6 new infestations were found in the county. This indicates that the 1984 program successfully located and controlled most of the existing infestations in the county.
Discussion

The success of the weed bounty program in Stillwater County as an educational tool is reflected in the following statements by young people who participated in the program:

- ..... I learned how to identify spotted knapweed and how it spreads to infest new areas.”
- ..... I think it’s a very good program for everyone. It does the county a lot of good and it’s an easy way to make money.”
- ..... Once you become a ‘weed fighter’ you can’t drive down the road without looking for weeds!”

The success of the program can also be measured through its endorsement by other extension agents in Montana and surrounding states. Six counties implemented bounty programs in 1985 in Montana. Although guidelines adopted by these other counties were similar to the model program in Stillwater County, some changes were made to fit needs and objectives of the community. In Teton County, funding for the program was obtained by the Soil Conservation Districts working through agricultural dealers within the community. Youth organizations, such as boy and girl scouts and 4-H clubs, were encouraged to participate. In addition to a monetary reward, plaques were presented to the group locating the most infestations. As further incentive for the program, a $100.00 reward was offered to the person who located, mapped and reported the largest weed infestation.

Control of weeds in residential areas presents special problems since herbicide use is restricted. Without control measures, these infestations continue to serve as a source of contamination for the surrounding areas. Wheatland County adopted a bounty program for locating, mapping, and controlling weed infestations in residential areas. Guidelines for the program included a $5.00 reward for locating and reporting weed infestations and $0.50 per pound reward for the weed if it was pulled with part of the root intact. People of all ages were encouraged to participate in the program which increased the educational aspects of the program.

Guidelines for establishing bounty programs

Based on the results of weed bounty programs in Montana, the following guidelines have been established to aid the development of similar programs in other areas.

* The county extension agent, weed supervisor, or other key individual or group within the county must be willing to commit time and energy to the program. This is especially critical during the first year.
* The amount of bounty paid on a weed will be determined by the number of infestations in the county. For example, weeds that are just starting to invade an area should have a larger bounty than weeds that are more common.
* Utilize bounty programs as public education programs within a community.
* Publicize the program through a variety of media channels to promote enthusiasm and public awareness.
* Involve federal and state employees in monitoring the program on public lands.

* Success of the program will be influenced by the nature of the target weed. The selected weed should be a potential threat to the area and common enough to promote enthusiasm for the program, especially the first year the program is implemented.

## Summary

Citizens in a Montana county used a weed bounty program as an educational tool to promote awareness, detection, and control of spotted knapweed on rangeland. Many people became involved with the weed control effort, weed awareness was increased, weeds were controlled, and the program proved cost-effective. The success of a bounty program is influenced by: 1) the enthusiasm and innovativeness of the county extension agent, weed supervisor, or key individual or group in the community, 2) the choice of the weeds selected for the bounty program, and 3) good media coverage of the bounty program. With proper planning and organization, weed bounty programs can be used effectively in other areas.