

# Weed Awareness

## New Weed Control Legislation

### Federal Act Establishes a Weed Grant Program

The Noxious Weed Control and Eradication Act of 2004 amends the Plant Protection Act to direct the Secretary of Agriculture to establish a grant program to provide financial and technical assistance to weed management entities to control or eradicate noxious weeds. It also:

- Sets forth criteria for making grants to weed management entities and for the selection for funding of weed eradication projects. Directs the secretary to give special consideration to states with approved weed management entities established by Indian tribes.
- Authorizes the secretary to enter into agreements with weed management entities for funding of weed eradication activities that take into consideration various factors, including: (1) the severity of the noxious weeds problem or potential problem; (2) the likelihood that the activities will prevent or resolve the weed problem or increase knowledge about resolving similar problems; (3) the extent to which the activities will provide a comprehensive approach to the control or eradication of noxious weeds; (4) the extent to which the activities will improve the overall capacity of the United States to address noxious weed problems; and (5) the extent to which the activities promote cooperation and participation between States that have a common interest in controlling and eradicating noxious weeds.
- Authorizes the secretary to enter into a cooperative agreement with weed management entities to enable rapid response to outbreaks of noxious weeds.
- States the assistance authorized under this Act is meant to supplement, and not replace, other assistance available for control or eradication of harmful, invasive weeds on public and private lands.
- Authorizes appropriations for fiscal year 2005 through 2009. Limits funding for administrative costs to five percent of available funds.

### Nebraska Act Creates Grant Eligibility

The 2004 Unicameral amended the Nebraska Noxious Weed Control Act. The amendment provides additional cash fund support for the Nebraska Department of Agriculture's (NDA) responsibilities under the Noxious Weed Control Act. This is done by providing a series of transfers from the Weed and Insect Book Cash Fund to the Noxious Weed Control Cash Fund and directs a portion of revenues from future sales of the weed book to the noxious weed program.

Additionally, the amendment assigns two new weed management authorities to the NDA to enhance tools for responding to noxious weeds and invasive plants. Specifically, the amended act authorizes the director to 1) temporarily designate plants as noxious weeds and 2) to administer a grant program to encourage the formation of multi-stakeholder weed management entities and other types of projects led by local weed control authorities to proactively address noxious weed control concerns and emerging invasive plant problems. The grant program is not specifically funded but the director is authorized to seek grants and other revenue sources. The amendment was also intended to coordinate with the then pending federal legislation that would provide federal pass-through funds to encourage eligible projects similar to those enumerated in the bill.

#### Environmental Trust Fund Grant

*Just announced!* The Nebraska Environmental Trust Fund has awarded a \$250,000 grant (for a three-year period) to the Nebraska Department of Agriculture for its Nebraska Noxious and Invasive Weed program.

## How to Control Musk Thistle

When attempting to control musk thistle or plumeless thistle, it is imperative to prevent seed production. They are biennial weeds that reproduce only by seed. Each plant is capable of producing up to 20,000 seeds. The key to managing musk thistle is to prevent all plants from going to seed. Infestations occur in the same sites year after year but size of the infestations vary considerably due to climatic conditions. Good moisture conditions in the fall, like we received in the fall of 2004, favor the germination of musk thistle seeds near the soil surface at these sites. These plants will flower the next spring if the plants are not controlled that fall or the next spring.

### Control Steps

1) Scout the areas with past infestations in March and April for seedlings and rosettes. A seed bank has built up in the soil at these sites. These seeds will remain viable for eight or more years waiting for the right conditions to germinate.



*Musk thistle rosette*

2) It is most effective to treat the entire area with herbicides in order to control all the small seedlings and rosettes and seedlings that have not emerged. Spot control of these sites usually results in a lot of escapes since not all the plants are observed and some plants germinate later.

3) Use 2,4-D as a contact herbicide along with a herbicide that will add to the effectiveness of killing the plants present but also have residual to kill later germinating plants. Some of the herbicides that will provide residual control

are Escort, Tordon 22K and Telar. Grazon P+D, a combination of Tordon and 2,4-D, also may be used. Follow label directions.

4) Provide control prior to bolting of the flower stem in May. Use 2,4-D along with a residual herbicide.

5) Scout these areas weekly and provide needed follow-up control until July. Be alert to the musk thistle plants acting as annuals due to a cool spring.

### Mechanical Control

Severing the root of musk thistle a couple of inches below the soil surface will kill the plant. The entire root does not have to be removed. Hand cutting or mowing has to be done at weekly intervals to be effective. Fire has not proven to provide effective control. The plants survive prescribed burning, but can be easily found and controlled by other means after the burn.

Maintaining a good, healthy stand of grass is very effective prevention.

## How to Control Leafy Spurge

Leafy spurge (*Euphorbia esula*) is a perennial plant ranging in size from 6-36 inches in height. A native of Europe and Asia, leafy spurge emerges early in the spring and gets a head start on other vegetation in a race for space, sunlight, nutrients and water. Prolific seed production and an extensive root system give the plant a huge competitive advantage and make consistent, long-term control difficult.



Monitoring of areas with known or potential leafy spurge infestations is critical; adequate control is possible if management procedures are implemented in the early stages of infestation, before the root system gets fully established. You can rarely achieve 100 percent eradication of spurge, but infestations can be reduced to manageable levels with the use of herbicides.

### Strategy

The control of well-established leafy spurge stands must be considered a long-term management program. A landowner must develop a persistent annual program to prevent the spread of larger stands, eliminate smaller infestations and prevent the spread of leafy spurge to uninfested areas. The extensive leafy spurge root system allows the plant to regrow from depths of 15 feet or more for several years. No single treatment will eradicate this weed. A consistent annual treatment program can provide long-term control.

Once you have achieved a high level of control, remaining isolated patches can be spot-treated, resulting in a less costly control program. This plant spreads by underground roots and there is always a fringe area of younger plants that do not bloom.

There are also roots underground that extend laterally beyond the younger plants. A 15-foot perimeter should be treated around leafy spurge patches to control seedlings and spreading roots. Treated patches should be watched carefully for any regrowth and/or seedlings and retreated.

### Chemical Control

Currently, the three most effective herbicides are Tordon 22K, Plateau and Glyphosate (Roundup and others). Before using any herbicide, always read and follow label directions. Check label for permitted uses on your site.

#### Tordon (picloram)

Tordon has been an effective herbicide for controlling leafy spurge. Tordon applied at two quarts per acre during flowering or fall regrowth can give 75 percent or more leafy spurge control the first year after treatment. A less expensive option for leafy spurge control is repeated annual treatments of Tordon at one to two pints per acre plus 2,4-D at one quart (four pounds per gallon concentrate) applied in June, during flowering, can be quite effective. Tordon is a restricted-use pesticide requiring an application license to apply. Note label precautions. Overdrive herbicide from BASF can be tank-mixed with Tordon to offer improved control. A unique formulation of diflufenzopyr and dicamba, Overdrive enhances and complements the activity of picloram, reducing the total amount of needed active ingredient, while improving long-term control of leafy spurge. Plot studies (1) show a 4-6 ounce per acre application of Overdrive mixed with 8-16 ounces per acre of picloram results in improved leafy spurge control.

#### Plateau (imazapic)

Plateau applied in the fall at 8-12 ounces per acre can provide up to 90 percent leafy spurge control one year after treatment. The label recommends application from late-August to mid-October, but prior to a killing frost. Plateau should be applied with a methylated seed oil, (MSO), at one quart per acre. The addition of 28 percent UAN liquid fertilizer to Plateau plus the MSO has occasionally increased long-term leafy spurge control. Plateau is safe to use around a variety of trees, many wildflowers and legumes. Plateau is only available through county weed control authorities that have herbicides for sale. The closest county authority that has it available is Jefferson County Weed Control Authority, John McKee, Superintendent, 313 South K Street, Fairbury, NE. 68352, (402) 729-3602, jeffcoweed@diodecom.net

#### Glyphosate (e.g. Roundup)

Glyphosate (e.g. Roundup) applied at a rate of one quart per acre from mid-July to mid-September can result in 80.90 percent control of leafy spurge. Note that glyphosate is a non-selective herbicide and it will kill grasses and other desirable plants. A follow-up treatment with 2,4-D at one pint (four pounds per gallon concentrate) the following year, (mid-June to mid-July) is necessary to prevent seedling reinfestation.

### Prevention

Infestations occur where there is a seed bank in the soil and the conditions are right for germination and survival. Healthy vegetation provides competition and minimizes the survival of musk thistle seedlings. Care should be taken not to spread seeds from infested sites or to use forage or seeds contaminated with noxious weed seeds. Equipment should be cleaned before leaving an infested site if it is possibly contaminated. Only weed-free certified forage and seed should be used.