Noxious Weed Control in Kansas

Jeff Vogel
PPWC Program Director
Noxious Weed Control

2-1314. Noxious weeds; control and eradication; listing.

It shall be the duty of persons, associations of persons, the secretary of transportation, the boards of county commissioners, the township boards, school boards, drainage boards, the governing body of incorporated cities, railroad companies and other transportation companies or corporations or their authorized agents and those supervising state-owned lands to control the spread of and to eradicate all weeds declared by legislative action to be noxious on all lands owned or supervised by them and to use such methods for that purpose and at such times as are approved and adopted by the Kansas department of agriculture.
Noxious Weed Control

• 2-1315. Control of noxious weeds; control districts; duties of secretary; cooperation of secretary, county agents and county weed supervisors; rules and regulations.

The secretary of agriculture is hereby empowered to decide and adopt methods as official for control and eradication of noxious weeds and to publish such methods, and to make and publish such rules and regulations as in the secretary's judgment are necessary to carry into effect the provisions of this act, and to alter or suspend such rules and regulations when necessary.
Integrated Weed Management (IWM)
DESCRIPTION

PREVENTION OF SPREAD OF MUSK THISTLE

MUSK THISTLE CONTROL PRACTICES

The control of musk thistle shall mean preventing the production of viable seed.

CULTURAL CONTROL

Mowing - Mow with a rotary mower before the first appearance of pink on the flowers. Mowing at full bloom will prevent seed production. Mow cleanly and closely and repeat as needed for control.

Hand Cutting - Digging - Cut between the first appearance of pink and the first appearance of brown on the pappus of the earliest heads. Cutting 2 inches below ground level at any stage should kill the plant. **Pick heads that are beyond the bud stage and place in a tight container.**

HERBICIDES APPROVED FOR CONTROLLING MUSK THISTLE

2,4-D
Chlorsulfuron
Dicamba
Picloram
Metsulfuron methyl
Imazapic
Dicamba
Aminopyralid
Clopyralid

BIOLOGICAL CONTROL

Two insects for biological control of musk thistle are approved but must meet the requirements set forth in K.A.R. 4-8-41. Consult with your County Noxious Weed Director for more information.
## Chemical Control

### Noxious Weed Approved Cost Share Herbicide List

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-D*</td>
<td>(4)</td>
</tr>
<tr>
<td>Aminopyralid</td>
<td>(4)</td>
</tr>
<tr>
<td>Bromacil</td>
<td>(5)</td>
</tr>
<tr>
<td>Chlorsulfuron</td>
<td>(2)</td>
</tr>
<tr>
<td>Clopyralid</td>
<td>(4)</td>
</tr>
<tr>
<td>Dicamba</td>
<td>(4)</td>
</tr>
<tr>
<td>Diflufenzo-pyr</td>
<td>(19)</td>
</tr>
<tr>
<td>Diquat</td>
<td>(22)</td>
</tr>
<tr>
<td>Fenoxaprop</td>
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</tr>
<tr>
<td>Fluazifop</td>
<td>(1)</td>
</tr>
<tr>
<td>Fluroxypyr</td>
<td>(4)</td>
</tr>
<tr>
<td>Foramsulfuron</td>
<td>(4)</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>(9)</td>
</tr>
<tr>
<td>Imazapic</td>
<td>(2)</td>
</tr>
<tr>
<td>Imazapyr</td>
<td>(2)</td>
</tr>
<tr>
<td>Metsulfuron methyl</td>
<td>(2)</td>
</tr>
<tr>
<td>Nicosulfuron</td>
<td>(2)</td>
</tr>
<tr>
<td>Picloram</td>
<td>(4)</td>
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<tr>
<td>Primisulfuron</td>
<td>(2)</td>
</tr>
<tr>
<td>Quinclorac</td>
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<tr>
<td>Quinclorac-P</td>
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<tr>
<td>Rimsulfuron</td>
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</tr>
<tr>
<td>Sethoxydim</td>
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</tr>
<tr>
<td>Sulfometuron</td>
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<tr>
<td>Tebuthiuron</td>
<td>(7)</td>
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<tr>
<td>Triasulfuron</td>
<td>(2)</td>
</tr>
<tr>
<td>Triclopyr</td>
<td>(4)</td>
</tr>
<tr>
<td>Trifluralin</td>
<td>(3)</td>
</tr>
</tbody>
</table>

### Approved Cost Share Herbicides by Species

#### Field bindweed
- 2,4-D Amine or LV Ester
- Dicamba
- 2,4-D + Dicamba
- Diflufenzo-pyr + Dicamba
- Glyphosate + 2,4-D
- Glyphosate + Dicamba
- Dicamba
- picloram
- picloram + 2,4-D

#### Russian knapweed
- 2,4-D Amine or LV Ester
- Dicamba
- Imazapic
- Imazapic + Glyphosate
- Picloram

#### Musk thistle
- 2,4-D Amine or LV Ester (B)
- Aminopyralid
- Chlorsulfuron
- Clopyralid
- Clopyralid + 2,4-D
- Clopyralid + Triplet
- Dicamba
- Dicamba + 2,4-D
- Diflufenzo-pyr + Dicamba
- Diflufenzo-pyr + Dicamba + 2,4-D
- Diflufenzo-pyr + Dicamba + Metsulfuron
- Diflufenzo-pyr + Dicamba + Picloram
- Imazapic
- Imazapic + Glyphosate
- Metsulfuron methyl
- Metsulfuron methyl + 2,4-D
- Metsulfuron methyl + Dicamba
- Picloram
- Picloram + 2,4-D
- Triasulfuron + Dicamba

#### Leafy spurge
- 2,4-D LV Ester
- Diflufenzo-pyr + Dicamba + Picloram
- Glyphosate
- Imazapic
- Imazapic + Glyphosate
- Picloram
- Picloram + 2,4-D

#### Canada thistle
- 2,4-D Amine or LV Ester
- Aminopyralid
- Chlorsulfuron
- Clopyralid
- Clopyralid + 2,4-D
- Clopyralid + Triplet
- Dicamba
- Diflufenzo-pyr + Dicamba + Picloram
- Glyphosate
- Picloram
- Picloram + 2,4-D
- Triasulfuron + Dicamba

#### Pignut
- Picloram
- Multiflora rose - County option
- 2,4-D LV Ester
- Dicamba
- Glyphosate
- Picloram
- Imazapic
- Tebuthiuron
- Triclopyr + 2,4-D
- Metsulfuron methyl + 2,4-D + Dicamba

#### Bull thistle - County option
- 2,4-D Amine or LV Ester
- Aminopyralid
- Chlorsulfuron
- Clopyralid
- Clopyralid + 2,4-D
- Clopyralid + Triplet
- Dicamba
- Diflufenzo-pyr + Dicamba
- Diflufenzo-pyr + Dicamba + Metsulfuron
- Diflufenzo-pyr + Dicamba + Picloram
- Imazapic
- Imazapic + Glyphosate
- Metsulfuron methyl
- Metsulfuron methyl + 2,4-D
- Picloram
- Picloram + 2,4-D
- Triasulfuron + Dicamba
Mode of Action

1. Lipid Biosynthesis Inhibitors
2. Amino Acid Biosynthesis Inhibitors
3. Cell Division Inhibitors
4. Synthetic Auxins
5. Photosynthesis Inhibitors
6. EPSP Synthase Inhibitor
7. Pigment Inhibitors
8. Membrane Disruptors
For control of susceptible broadleaf weeds, woody plants and vines on rangeland and permanent grass pastures, fallow cropland, Conservation Reserve Program (CRP) acres, non-crop areas including forest planting sites, industrial manufacturing sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadways, railroads, and wildlife openings in forest and non-crop areas.

**Specialty Herbicide**

Specifications by Dow AgroSciences LLC

For control of susceptible broadleaf weeds, woody plants and vines on rangeland and permanent grass pastures, fallow cropland, Conservation Reserve Program (CRP) acres, non-crop areas including forest planting sites, industrial manufacturing sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadways, railroads, and wildlife openings in forest and non-crop areas.

Active Ingredients:
- Pekalins 4-aminophenoxyisobutyric acid: 24.4%
- Other ingredients: 75.6%

Total Ingredients: 100.0%

Acid Equivalent:
- Pekalins 4-aminophenoxyisobutyric acid: 21.1% – 2 lb/acre

EPA Reg. No. 02716-0

Keep Out of Reach of Children

CAUTION

Hazards to Humans and Domestic Animals
- Cause Moderate Eye Irritation
- Avoid contact with eyes or clothing. Prolonged or frequent repeated skin contact may cause allergic skin reactions in some individuals.

Personal Protective Equipment (PPE)

- Applications and other handlers must wear: Long-sleeved shirt and long pants, non-permeable gloves, non-vented safety glasses or goggles inside of a non-permeable material, and non-permeable boots.

Engineering Controls

- When hand application is required, use enclosed, self-contained or enclosed in a manner that meets the requirements listed in the WPS (29 CFR 1926.59(a)(4)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

- Wash hands before eating, drinking, chewing gum, using tobacco or going to the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

- If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- If on skin: Wash skin with soap and water or wash skin with soap and water following instructions under Warnings and Precautions. Do not contaminate water used for irrigation or domestic purposes.
- If swallowed: Do not induce vomiting. Give 1-2 glasses of water. Call a poison control center or doctor for treatment advice. Do not induce vomiting when instructed to do so.

Environmental Hazards

- This product is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if it is allowed to drift onto them. Do not apply to or allow to come in contact with aquatic plants or wildlife. Do not apply this product to aquatic plants or wildlife. Do not apply to water or to any watercourse or to any water body. Do not contaminate water used for irrigation or domestic purposes. Do not contaminate water used for irrigation or domestic purposes.

- This pesticide is a chemical which can volatilize (e.g., trichloroethylene) through soil and may have the potential to contaminate groundwater which may be used for irrigation or drinking purposes. Users should especially avoid application of pesticides where soils have a rapid to very rapid permeability throughout the profile such as boxy sandy loams and the water table of an underlying aquifer is shallow to soils containing materials over limestone that are severely fractured or permeable, and aquifers which would allow direct introduction into an aquifer. Your local agricultural agents may provide further information on the type of soil in your area and the location of groundwater.

Avoid contact with eyes or clothing. Prolonged or frequent repeated skin contact may cause allergic skin reactions in some individuals.
Mechanical Control works best with annual or biennial plants. Perennial plants store energy in their roots and will re-sprout or reproduce vegetatively.
Mechanical Control

Biennials noxious weeds
Musk thistle
Bull thistle
Control once and done
(for the season)

Perennial noxious weeds
Field bindweed
Sericea lespedeza
Johnsongrass
Bur ragweed
Canada thistle
Leafy spurge
Hoary cress
Pignut
Kudzu
Quackgrass
Russian knapweed
Multiflora rose

Control biweekly
(for 5+ years)
Cultural Control

- Crop Rotation
  - Resistant Varieties
- Intercropping
- Cover Crops
- No-till
- Revegetation
  - Disturbed Sites
- Weed Free Forage
  - Certified
- Cleaning Machinery

Prevention
Biological Control

KDA

19 Agents available for 6 noxious weeds
35 Agents available for 6 invasive weeds

Biological control agents do not kill the target species, they simply slow down the rate of spread and reproduction
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