

Hardin County Noxious Weed Policy

Integrated Roadside Vegetation Management

2016

This policy addresses the control of invasive and noxious weeds within the Hardin County Secondary Road System public right of way. The County is required to control Primary and Secondary noxious weeds as listed in the Code of Iowa, Chapter 317, and by Board of Supervisors Resolution.

Hardin County Board of Supervisors approved an Integrated Roadside Vegetation Management Program (IRVM) to better serve the public by using an integrated approach to roadside vegetation maintenance. Integrated Roadside Vegetation Management is a long-term approach to evaluating, developing, improving and maintaining vegetation on road right of way

The ultimate purpose of any Roadside Vegetation Management program is to provide a safe, healthy, and environmentally sustainable roadway, and also to preserve and improve aesthetics and native biodiversity along the county's secondary road system. IRVM is a program for accomplishing these objectives in the most economically and environmentally responsible manner possible. The IRVM program is based on the belief that Hardin County's approximately 6,000 acres of rights of way represent a significant resource worth managing by the most sustainable methods possible to the greatest benefit to the county. The IRVM objective is to manage vegetation along county right of ways using several tools, rather than relying on just one. These techniques include: planting of native prairie plants to outcompete weeds and trees, use of prescribed burning, use of mowing, attempted preservation of native plant communities for competitive ground cover, and a spot herbicide application program

Historically, the vegetation management practice was to blanket spray the roadside with herbicide to eliminate weeds. This killed the weeds, but also stressed, weakened, and often killed the desirable species, including native wildflowers, which created opportunities for more weeds to grow. Since that time, it has been shown that a spot application program, rather than blanket spraying, along with the previous techniques mentioned, gave a more economically maintained, and more environmentally friendly roadside. Current vegetation management practices within the disturbance prone right of way are mowing, prescribed burning, and competitive seedings. Without the careful use of a spot herbicide application program, these methods are of limited effectiveness to control or eliminate some noxious weed species, and difficult to implement fully, because of time and manpower, on over 6000 acres of county roadsides.

Noxious weeds are often exotic, introduced plant species which have no natural controls, spread rapidly, produce abundant seed, and can displace native plant communities. Noxious weeds quietly suffocate and lower diversity and quality of native plant communities. Once well

established, most species of noxious weeds are very difficult, if not impossible to control or eradicate, as well as being expensive and time-consuming to do so. A primary weed management goal is to keep plants from producing seeds and becoming well established. Without proper control, most of these exotic species can quickly expand their populations and encroach into farm lands, lawns, pastures, roadsides, etc. Because of the amount of disturbances in roadsides, coupled with plant communities which are not highly competitive, and generally poor soil conditions, weeds can move quickly into ditches. Roadsides can serve as an entry point for exotic species to rapidly travel into uninfested areas via vehicles, cargo, livestock, road maintenance equipment, etc. The Integrated Roadside Vegetation Management Program focuses its resources only on plant species which have been declared Noxious by the Code of Iowa or Hardin County, and encourages the growth of non-noxious and more competitive plants, often native prairie species. A complete list of noxious species is attached as Appendix A. Noxious weeds need to be controlled because of their detrimental effects on agriculture such as lowered yield, decreased crop market values, decreased forage values, and competition for light, water, and nutrients. Noxious weeds can also amplify potential for run off and soil erosion, which can increase sedimentation and hurt water quality.

HOW WEEDS ARE CONTROLLED

Hardin County will provide regular, ongoing training on various noxious weed control methods to employees. Training will be on topics such as: traffic and equipment safety, weed and plant identification, safe and correct use of herbicide application equipment and products, IRVM fundamentals (i.e. prescribed burning, prairie planting, etc.), seeding and mowing techniques, etc. The County is committed to providing education to employees about right of way vegetation management and ways to improve roadsides. Training will be conducted by the Roadside Vegetation Manager or by using other training professionals.

Native Prairie Seeding- Planting of native prairie vegetation will help control encroaching brush and weeds.

Prescribed Fire- Using controlled burning to manage noxious weeds. Expanded use of spring and fall burning can help to eliminate seeds and stress weeds. Prescribed burning works best in combination with competitive seeding to help establish warm season prairie grasses to outcompete some of the weeds. Burning can also be a valuable management tool to improve restored or remnant prairie areas, in place of, or in conjunction with, other weed management methods.

Mowing- Mowing is an effective tool in controlling population growth and seed production of most noxious weeds. Infested areas may require repeated mowing to reduce weed seed production and plant vigor. Mowing may be used in areas of the roadside which are not too steep or too wet to use equipment. Mowing works best in combination with competitive seeding to help establish warm season prairie grasses to outcompete some of the weeds.

Chemical- A critical tool employed by IRVM programs is a spot herbicide application program designed to control and reduce noxious weed populations. A spot application program:

- 1). Targets and treats specific noxious weeds,
- 2). Identifies growth characteristics and cycles,
- 3). Uses herbicides labeled specifically for that weed species and location,
- 4). Uses appropriate equipment to minimize drift and off site movement,
- 5). Attempts to minimize disturbance to beneficial plant communities

A spot application program reduces the amount of herbicide entering the roadside, while giving improved weed control results. Careful use of herbicides for prairie plantings and weed control can improve grass stand success and establishment times, which result in less soil erosion, and lowered maintenance costs from seedbed preparation and mowing. Every effort will be made to avoid using herbicides on naturally occurring native plant communities or prairie reconstructions. All applicators of herbicides for noxious weed control will be required to be licensed by the State of Iowa, Category 6, Right of Way Herbicide Application. In addition, all applicators will receive annual training on the topics listed above.

ROADSIDE MAINTENANCE AGREEMENT

A Roadside Maintenance Agreement (see attached), available from the Roadside Vegetation Manager, allows property owners to manage vegetation within the right of way adjacent to their property without the use of spot herbicide applications. Vegetation must be maintained in accordance with Hardin County Brush Control & Noxious Weed Policies. The property owner may request this annual Agreement which explains the property owner's responsibilities in order to avoid the spot herbicide application. Organic producers, beekeepers, etc. are encouraged to obtain Roadside Maintenance Agreements, and post no spray signs at property borders.

CONCLUSION

Hardin County needs to take a strong stand to control weed invasion from the right of way onto private land, and weeds from private lands encroaching into the right of way. This policy is proposed because of the need to proactively control noxious weeds in accordance with Iowa's Noxious Weed Law and Board of Supervisors' Resolutions. Weed control in the past has been a subject for many debates. Using all of the weed management techniques outlined in this policy, Hardin County's Integrated Roadside Vegetation Management Program can provide a more economically maintained, environmentally friendly roadside for residents to enjoy.

APPENDIX A

NOXIOUS & INVASIVE WEED SPECIES TO BE CONTROLLED

The Iowa Department of Agriculture and Land Stewardship and the Code of Iowa have declared 27 species of plants as noxious weeds which need to be controlled. Johnson County lists an additional 4 species of noxious weeds to be controlled. The following weeds have been declared noxious by the State of Iowa:

| | |
|-------------------------------------|-----------------------------|
| Buckhorn Plantain | <i>Plantago lanceolata</i> |
| Buckthorn | <i>Rhamnus</i> species |
| Bull Thistle | <i>Cirsium vulgare</i> |
| Butterprint (Velvetleaf) | <i>Abutilon theophrasti</i> |
| Canada Thistle | <i>Cirsium arvense</i> |
| Cocklebur | <i>Xanthium strumarium</i> |
| Field Bindweed | <i>Convolvulus arvensis</i> |
| Horse Nettle | <i>Solanum carolinense</i> |
| Leafy Spurge | <i>Euphorbia esula</i> |
| Multiflora Rose | <i>Rosa multiflora</i> |
| Musk Thistle | <i>Carduus nutans</i> |
| Perennial Peppergrass (Hoary Cress) | <i>Cardaria draba</i> |
| Perennial Sow Thistle | <i>Sonchus arvensis</i> |
| Poison Hemlock | <i>Conium maculatum</i> |
| Puncture Vine | <i>Tribulus terrestris</i> |
| Purple Loosestrife | <i>Lythrum salicaria</i> |
| Quackgrass | <i>Agropyron repens</i> |
| Red Sorrel (Sheep Sorrel) | <i>Rumex acetosella</i> |
| Russian Knapweed | <i>Centaurea repens</i> |
| Shattercane | <i>Sorghum bicolor</i> |
| Smooth Dock (Pale Dock) | <i>Rumex altissimus</i> |
| Sour Dock (Curly Dock) | <i>Rumex crispus</i> |
| Tall Thistle | <i>Cirsium altissimum</i> |
| Teasel | <i>Dipsacus</i> species |
| Wild Carrot (Queen Anne's Lace) | <i>Daucus carota</i> |
| Wild Mustard | <i>Brassica kaber</i> |
| Wild Sunflower | <i>Helianthus annuus</i> |

In addition to the State of Iowa Noxious Weed List, Hardin County lists an additional 2 species of noxious weeds. These species are listed below:

| | |
|-------------------|-----------------------------|
| Japanese Knotweed | <i>Polygonum cuspidatum</i> |
| Wild Parsnip | <i>Pastinaca sativa</i> |

ROADSIDE MAINTENANCE AGREEMENT REQUEST

Name: _____ Phone _____

Address: _____

City/State/Zip: _____ Email: _____

I request Hardin County IRVM Department not to apply herbicides within the right of way adjacent to the land designated below located in Section ____, of Township _____

Areas That Are Not To Be Treated

(Please be as specific as possible- feel free to include an illustration of the area on back)

County Road _____ Side of Road N S E W

From _____

To _____

County Road _____ Side of Road N S E W

From _____

To _____

In return, I ask permission to work within the public right of way to remove noxious weeds and to remove brush by cutting and treating the stumps. Dept. No spray signs must be posted in visible locations at each end of the Maintenance Agreement area to define boundaries. Signs must have an unobstructed view from the road and must be a minimum of 5 feet above the ground. This agreement does not prohibit herbicide applications by utility companies or other entities.

I fully understand that I am to destroy State & County listed noxious weeds by June 1st of every year, and remove all brush and trees in accordance with Hardin County Noxious Weed and Brush Control Policies, or the same may be removed by Hardin County and this or future permits may be revoked. This is a long-term agreement, and is effective until five (5) years from date below.

DATE: _____

DATE: _____

Applicant Name

Hardin County Vegetation Manager

Property Owner (if other than applicant)

Hardin County Engineer

Hardin County Board of Supervisors

 Date: 10/5/2016

Lance Granzow, Chair

Hardin County Secondary Roads Department

 Date: 10-5-16

Daryl Albertson, Engineer

IRVM Department

 Date: 10-5-16

Cory Engle, Roadside Vegetation Manager