Cutleaf and Common Teasel Designated “Noxious” in Lancaster County

BY BRENT MEYER
Lancaster County Weed Superintendent

In an effort to protect Nebraska’s economy and the quality of its land, Greg Baehl, Director of the Nebraska Department of Agriculture, approved the designation of Cutleaf teasel (Dipsacus laciniatus L.) and Common teasel (Dipsacus fullonum L.) as noxious weeds in Lancaster County. This designation requires each landowner in Lancaster County to be responsible for controlling teasel growing on their property or manage the weeds. The Nebraska Noxious Weed Control Act allows individuals to designate local invasive weed problems to their county’s noxious list, and with a minimum of one year until it can be treated. This allows local authorities to manage; control potential invasives aggressively at the county level to prevent statewide spread.

After holding public hearings, gathering information and testimony, Lancaster County Weed Control proceeded to add both teasels to our noxious weed list. On July 1, 2014, Lancaster County became the first county in Nebraska to add cutleaf and common teasel as noxious weeds.

The Lancaster County Weed Control Authority gathered the following information that helped determine the designation to add common & cutleaf teasel.

• Early Detection Rapid Response (EDRR) is the most economical way to attack invasive weeds. Getting after the problem early is the most economical way to control invasives. The longer we wait, the more expensive it will become to eradicate.

• Currently, 14 counties in Nebraska are reporting common teasel and only 7 counties reporting cutleaf teasel. This means that the problem is probably not widespread yet.

• Nine states have already declared one or both teasels as noxious — Iowa, Missouri, Minnesota and Colorado being the closest.

• Nebraska Game & Parks reported working on controlling teasel for years without having much success at eradication.

• Lancaster County currently has less than 100 acres with more of them being small and easy to control.

• Testimony from Robert Kaul, Curator and Research Professor for the University of Nebraska C.E. Bessey Herbarium, testified that teasel has the potential to be worse than musk thistle ever was.

Cutleaf teasel is native to Europe. It was introduced to North America possibly as early as the 1700s. Teasel has spread rapidly in the last 20 to 30 years, growing from focal points to the northeastern United States and now moving southward and is beginning to show up more abundantly in Nebraska.

Teasel has colonized many areas along interstates. Common teasel is sometimes used as a horticultural plant, which has aided in its expansion of its North American range. In particular, the use of teasel in flower arrangements has aided its dispersal, especially to cemeteries.

Teasel grows in open, sunny habitats such as roadsides and pastures. It prefers disturbed areas, but can invade high-quality areas such as prairies, savannas, seeps and seepage meadows. Lack of natural enemies allows teasel to proliferate and left unchecked, teasel quickly can form large monocultures excluding all native vegetation.

Habitat
Teasel grows in open, sunny habitats such as roadsides and pastures. It prefers disturbed areas, but can invade high-quality areas such as prairies, savannas, seeps and seepage meadows. Lack of natural enemies allows teasel to proliferate and left unchecked, teasel quickly can form large monocultures excluding all native vegetation.

Life History
A single teasel plant can produce more than 2,000 seeds. Depending on conditions, up to 30 to 80 percent of the seeds will germinate, so each plant can produce many offspring. Seeds also can remain viable for at least 2-5 years. Seeds typically don’t disperse far; most seedlings will be located around the parent plant. Parent plants often provide an optimal nursery site for new teasel plants after the adult dies. Dead adult plants leave a relatively large area of bare ground, formerly occupied by their own basal leaves that new plants readily occupy. Seeds may have the capacity to be water-dispersed, which may allow seeds to be dispersed over longer distances. Immature seed heads of teasel are capable of producing viable seed.

Impacts
Both teasels form large, dense stands that choke out desirable plant species. This can reduce forage, wildlife habitat and species diversity.

Prevention and Management
Do not plant teasels or intentionally move soil containing them to recreational vehicles or lawn/garden equipment, containing seed of this species. Do not use seedheads in floral arrangements.

Infestation sites will need to be monitored and treated repeatedly until the seedbanks are depleted. Teasel seedbanks remain viable for a relatively short time, 2-5 years. With diligent control, eradication may be feasible within this timeframe. Hand-pulling and digging are management options for small infestations, but the large, fleshy taproots are difficult to remove. Flowers and seedheads will need to be bagged and disposed.

This species also responds favorably to annual herbicide treatments. Nebraska Extension’s Guide For Weed Management (EC-130) recommends treatment at the rosette stage in the fall or early spring. The three different treatment options are:

• 2.4-D 4% Amine at 32.0 ounces per acre
• Garlon 3A at 3.0-4.0 pints per acre
• Overade at 4.0-8.0 ounces per acre

Always read and follow the label directions.

Biological control is not a management option at this time, but in the future.

Ineffective Practices
Mowing is ineffective because the root crown will re-sprout and flower after being cut. Even repeated mowing is ineffective. Repeated mowing will stop some plants from flowering, but others will produce short flowering stems short enough to be below the height of the mower. Plants knocked over by a mower and not cut off, will lie horizontally and produce short flowering stalks below the height of the mower.

Prescribed burning alone is ineffective. Prescribed burning may kill some of the isolated small seedlings, but is ineffective against dense seedings or large rosettes.

The best time to treat teasels and thistles is when they are in the rosette stage (cutleaf teasel on left, musk thistle on right).

Treat Noxious Weeds at the Right Time, Not When You Have Time

BY MITCH COFFIN
Nebraska Department of Agriculture Noxious Weed Program Manager

Noxious weeds are problematic because they tend to be difficult to control. These non-native plants do not have natural enemies to help keep them in check. Most are prolific seed producers and can survive regardless of weather patterns and conditions. While it may make a person feel good about overwintering a mature musk thistle with herbicide and watching it kill up and turn brown, one needs to ask themselves if they really accomplished anything. These untimely treatments are usually non-effective or cost inefficient.

All herbicide labels provide information regarding the best time to treat a specific plant. Chemical companies do extensive research to provide the end user with the best control. A herbicide labeled to treat before flowering may not be the best choice once the plant flowers and matures. Different herbicides act in different ways depending on growth stage or time of year.

It is important to know the target pest and the best growth stage to treat the pest. Some plants respond well to spring treatments, while others might be best suited for summer or fall treatment. Regardless of the noxious weed you plan to control, there are a number of herbicides readily available for treatment. Know the habit in which the noxious weed will grow the year you plan to treat. A number of herbicide labels to see which product will work for you and your situation.

Timing is critical for one to achieve the best results and best bang for your buck. Consistent and timely control will gain good results. Treating noxious weeds just once is not a good approach. Follow-up treatments need to be a part of the overall plan to contain and control targeted weeds. These weeds can produce large amounts of seed and it can take several years to deplete the seed bank the noxious weed has created.

Questions regarding noxious weed control can be directed to your local County Weed Control Authority. This local office can provide recommendations on herbicides and the best time to treat noxious weeds.
Lancaster County Adopts “Play Clean Go” National Ad Campaign

“Play Clean Go,” an education and outreach campaign for outdoor recreationalists. The goal is to encourage outdoor recreation while protecting valuable natural resources. The objective is to slow or stop the spread of terrestrial invasive species through changes in public behavior. The campaign is designed to foster active participation in actions intended to interrupt recreational pathways of spread for invasive species. “Play Clean Go” promotes awareness, understanding and cooperation by providing a clear call to action to be informed, attentive and accountable for stopping the spread of terrestrial invasive species.

Catch the Thieves Green-Handed!

BY PAT DUGAN
Lancaster County Weed Chief Inspector

Deciding to farm and/or ranch is one of the most rewarding and challenging occupations you could possibly imagine. In most instances, your land is one of the largest investments you have and it is or will become one of your greatest assets providing for you, your family’s livelihood and generations to come.

As a landowner/tenant, you are charged every day to manage, preserve and enhance this investment. You have also committed yourself to become a business partner with every other owner in the community to protect and maintain property values.

Noxious and invasive plants in the United States have become established at unprecedented rates with over 4,200 species now on record. Across vast rangelands, wild lands and riparian areas, invasive plants have either become established or continue to be a threat.

These THIEVES are threatening your livelihood and they are not just weeds anymore. They continue to take land out of production. By being non-palatable, noxious and invasive plants reduce your animal unit per acre/pasture carrying capacity, they also reduce the marketability of your product, such as weed-free forage, lighter weaning weights, foreign matter in grain, lighter crop test weight, etc. Additional economic and environmental harm done by these invasive plants include reduced flow in waterways, altered fire regimes and abandoned natural areas once preserved for wildlife and recreation.

Clearly, invasive plants are increasingly impacting our ecosystems. Without the natural enemies from where they originated, these plants have an unfair advantage and aggressively out-compete our native plants. No doubt trying to eradicate noxious weeds is an expensive and time-consuming task. However don’t underestimate the necessity. Today’s invaders degrade property, cause a degree of reduced value and have the ability to reach an economic threshold rendering property useless. The estimated cost of controlling invasive plant species is more than $120 billion each year in the United States.

Stay educated and abreast of all the new invaders in your area. Look for things that seem out of place. Know the invader and study the best control method. Improper control may unintentionally help the spread. Rely on the local weed authority to do an extra set of eyes keeping you and other landowners informed of when there is an infestation problem. These new invaders are much more difficult to control and are economically irreparable. By being pro-active, we have a better chance of protecting assets from environmental and economic disaster.

Noxious Weed-Free Gravel and Hay Products

BY PAT DUGAN
Lancaster County Weed Chief Inspector

Weed-free gravel and hay products are key to the prevention of noxious and invasive weed invasions.

Invasive plants can be introduced via non-certified hay, mulch, straw and raw feeds. These plants out compete native plants, degrade wildlife habitat and reduce soil and water quality. They cause economic losses in natural areas and impact aesthetics and recreation opportunities. While weeds can be extremely difficult to remove once established in croplands, rangeland, yards and abandoned lots, they are especially hard to detect and then eradicate in wilderness areas.

You can prevent potential noxious weed infestations by insisting on Certified-Weed-Free Forage. As a buyer, you should be aware that noxious weed-infested forage products can cost you hundreds or even thousands of dollars down the road. Ask your forage supplier to have their hay certified prior to harvest. Certified weed-free hay and mulch provide assurance that the field was inspected based upon a reasonable and prudent visual inspection, and no noxious weeds were detected.

Stopping weeds at the gravel pit: Lancaster County Weed Authority along with the County Engineering Department are working together to require Certified-Weed-Free Gravel in Lancaster County. By using certified weed-free gravel, the chances of spreading noxious weeds along our roadways decreases.

Weed-free gravel, is gravel, sand or rock mined and provided from a pit that is free of any viable weed species listed on the Nebraska State Noxious Weed Lists.

The Weed-Free Gravel Certification Program is structured much like the existing Weed-Free Forage Certification Program. These pits are visually inspected twice a year to ensure compliance.

Prevention is the first line of defense in keeping weeds from occurring or increasing in an area. Utilize only certified-weed-free seed, hay, gravel or fill. If you have questions about certification regulations or weeds not allowed in certified forage, please see the Nebraska Weed-Free Forage Web site at www.newfree.org for a complete list of weeds and regulations.

Hidden Word Find

Responsible landowners take pride in their management efforts to control weeds in order to protect our environment. Sometimes the greatest challenge is to understand how invaders spread, the groups involved in treating them and tools they use.

Find the words in the puzzle and send your completed Word Find to: Lancaster County Weed Control, Weed Book Drawing 444 Cherrycreek Rd., Bldg. B, Lincoln, NE 68528

Hidden Word Find

Nebraska’s Noxious Weeds

It is the duty of each person who owns or controls land to effectively control noxious weeds on such land.

Noxious weed is a legal term used to denote a destructive or harmful weed for the purpose of regulation. The Director of Agriculture establishes which plants are noxious. These non-native plants compete aggressively with desirable plants and vegetation. Failure to control noxious weeds in this state is a serious problem which is detrimental to the production of crops and livestock, and to the welfare of residents of this state. Noxious weeds may also devalue land and reduce tax revenue.

Musk Thistle
- Height: 1.6–9.8 ft
- Pink to purple flowers
- Mature seedhead

Canada Thistle
- Height: 1–3.9 ft
- Pink to purple flowers

Plumeless Thistle
- Height: 1–4.9 ft
- Purple flowers

Phragmites
- Height: 3.2–20 ft
- Young seedhead
- Mature seedhead

Leafy Spurge
- Height: 3–2.8 ft
- Large yellow leaves (bracts)
- Stamens leaves have milky sap

Sericea Lespedeza
- Height: 1.5–6.5 ft
- White or cream to yellowish white flowers

Japanese Knotweed
- Height: 3–10 ft
- Creamy white to greenish white flowers

Giant Knotweed
- Height: 8–13 ft
- Creamy white to greenish white flowers

Purple Loosestrife
- Height: 1.3–8 ft
- Purple flowers

Saltcedar
- Height: 3.3–20 ft
- Pink to white flowers

Spotted Knapweed
- Height: 1–3.9 ft
- Lavender to purple flowers

Diffuse Knapweed
- Height: 1–3.9 ft
- White to purpleish flowers

Cutleaf Teasel
- Height: 4–6 ft
- White flowers

Good neighbors control noxious weeds — If you have questions or concerns about noxious weeds, please contact your local county noxious weed control authority, Nebraska Weed Control Association (www.neweed.org), or Nebraska Department of Agriculture.
Musk thistle
Leafy spurge
is a program of noxious weed methods. Integrated management very important for all infested weed management is the
• control
• weed identification
control.
for more effective and timely greatly increased, which allows the probability of detecting them is
to cooperators, land managers
awareness of noxious weeds and weeds. There is a need to improve environmental impacts of noxious
often re-vegetation.
containing large-scale infestations
preventing encroachment into land and invasive weeds. Integrated
least expensive and most effective acres in the county.
landowners in reducing the

1: Prevent the development of no weed infestations — Prevention is the least expensive and most effective way to halt the spread of noxious and invasive weeds. Integrated weed management includes preventing noxious weeds from landing on land that is not infested, identifying the pathways in which weeds are spread, managing existing noxious weeds, and creating new weed introductions, containing large-scale infestations using an integrated approach and often re-vegetation.

2: Provide education and public awareness on noxious and invasive weed control — The public is generally not aware of the economic and environmental impacts of noxious weeds. There is a need to improve awareness of noxious weeds and to provide educational information to cooperators, land managers and the public. As people become more aware of noxious weeds, the probability of detecting them is greatly increased, which allows for more effective and timely control.

Education and awareness assist:
• weed identification
• reporting new infestations
• prevention
• control
• funding for cooperation and partnerships

3: Provide for ongoing management — State of Nebraska-mandated noxious weeds — Noxious weeds are a threat to the system. A systematic approach to minimize noxious weed impacts and optimize intended land use. It is very important for all infested areas to be treated with effective methods. Integrated management is a program of noxious weed control that properly implements a variety of coordinated control methods. Types of control methods include mechanical, cultural, chemical and biological. Integrated management greatly improves the success rate for your weed control plan. All noxious weed management must be planned and evaluated over an extended period of time to be successful.

Noxious Weed Overview
No piece of land is safe from noxious weeds. They are found wherever they are able to establish a root system. In 2014, our inspectors documented 1,487 sites infested with noxious weeds. Of those sites, 394 were located within city limits. Due to their introduction as ornamentals salicdar, purple loosestrife and knotweed are more commonly found in the city than rural areas in Lancaster County. In order to prevent the spread of noxious weeds, an aggressive management plant is required on all noxious weed sites no matter where they are found.

Musk Thistle — Musk thistle is a commonly-reported noxious weed due to its easily- identifiable 4-inch, rosy-purple colored head. The key to successful musk thistle control is to prevent seed production. A total of 903 observations were made on 497 sites. There were 371 sites found to be in violation amounting to 1,398 acres infested.

Phragmites — We continue to find new infestations of phragmites throughout Lancaster County. Phragmites is an aggressive noxious weed and immediate action is required to keep this noxious weed under control. In 2014, we identified 441 sites to be in violation with phragmites.

Leafy Spurge — Leafy spurge is the noxious weed that seems to sneak up on us in the spring. It is very easy to detect when the grasses are still trying to grow. Leafy spurge continues to be very difficult to control and requires years of monitoring. In 2014, we made 799 inspections and found 490 infestations. Leafy spurge infests 1,521 acres in the county and city.

Purple Loosestrife — Purple loosestrife is known as the greatest noxious weed success story in Lancaster County. Wild purple loosestrife has been found in Lincoln city limits and in rural Lancaster County. Most commonly, purple loosestrife is found as ornamental plantings with the most infestations in the city limits. Purple loosestrife was added to the State Noxious Weed List in 2001 and that year, the state identified 490 locations. In 2014, we had 33 sites of ornamental or wild purple loosestrife.

Knotweed — The majority of knotweed in Lancaster County is considered to be knotweed. The key to successfully eradicating knotweed is educate the landowners about the impact knotweed can have on the environment and on proper control methods. In 2014, there were 18 known sites of knotweed in Lancaster County. The number of infestations is down 62% from 2011. This year, we did one force control on knotweed within Lincoln city limits.

Canada thistle — In the past couple of years, Canada thistle has been on an increase in Lancaster County. Currently we have known 15 infestations in the county and city. This is up 66% from 2011. Canada thistle is being transported with root stock and is commonly showing up in landscaping.

Saltcдар — Currently Lancaster County has four infestations of saltcдар. This low number is due to Early Detection-Rapid Response (EDRR). Saltcдар was identified early on as having the potential to cause problems and action was taken to eliminate them.

Sericea lespedeza — Now in our second year of dealing with sericea lespedeza as a noxious weed, we are starting to get a better understanding of it. Sericea lespedeza is found on one mile of wildlife management areas, but has been found in other road maintenance sites. Sericea lespedeza has increased since last year and we expect the number to continue since it is such a new noxious weed. In 2014, our inspectors found 102 sites infested, totaling 213 acres.

Teasle — In July 2014, cutleaf and common teasel were added to the Lancaster County Noxious Weed list. Our inspectors have already found 13 infestations. Our office is hopeful that EDRR will be effective with these plants. We plan to target teasel hard in 2015 to ensure the weeds do not spread.

Noxious Weeds in County Roadside
Landowners are encouraged to control noxious weeds along property lines. If not controlled by the owner, Lancaster County Weed Control will control these noxious weeds such as phragmites, sericea lespedeza and leafy spurge in the county roadways. While you will continue to see the blue flags or ribbon Along the roads, our inspectors are now using GPS to mark all the locations. Our contractor is provided with the latitude/ longitude points and will begin to use this to treat the locations.

The fall of 2014 was the first year when all perennial noxious weeds were attacked at the same time. Our contractor used two separate tanks of herbicide, which allowed them to drive the county roadways only once, treating three different species in this same year. This process ensures a better kill and saves the county money.

City of Lincoln Weed Abatement — Weeds & worthless vegetation above 6" The City of Lincoln Weed Abatement Ordinance requires landowners within city limits to maintain the height of weeds and worthless vegetation below six inches. This includes all areas to the center of the street and/or alley that adjoins their property. Three seasonal inspectors assist in administering this program. The seasonal employees complete inspections based on pre-selected properties due to their history, complaints from the public that are received in our office and by observing severe weeds while conducting other inspections. In 2014 our office received 2,129 complaints from the public and additional 821 properties were inspected that were observed as having violations. Our office made 8,310 initial and follow-up inspections on 3,407 sites. Protests not in compliance were notified of the violations with 2,391 letters, 1,485 legal notices, 627 reminder letters and 40 personal contacts. Landowners cut 2,707 sites and forced cutting was contracted on 299 sites. Landowners are required to pay the cost of control plus an administrative fee. A lien is placed against the property until the bill is paid.

City Landfills
The Weed Control Authority is responsible for managing noxious weeds at the 48 Street landfill and the Blue Road landfill. Presently, we deal with musk thistle and leafy spurge at both landfills and phragmites at the 48 Street landfill. The landfills are annually inspected and mapped. This helps us keep track of the spread of noxious weeds and the effectiveness of the control. Maps are provided to a contractor to complete the control work and follow-up inspections are completed.

Lancaster County Abandoned Cemeteries
Mowing and general maintenance on six abandoned cemeteries throughout the county falls under the supervision of the Weed Control Authority. Cemeteries included are the County Poor Farm Cemetery, Evangelical, Highland, Jordan and Uphoff. Special recognition goes to the following volunteers:
• Lincoln Tree Service for tree trimming and removal
• Steve Wedge for mowing Jordan
• Terry Briley for mowing Evangelical
• Boy Scouts of America Troop 64 for mowing Dietz
• Troy Hennig for mowing Highland and Uphoff