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 Babch, 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 is responsible for controlling teasel growing on property they own or manage.

The Nebraska Noxious Weed Control Act allows individual counties to designate local invasive weed problems to their county's noxious list, without being added to Nebraska’s statewide noxious list. This allows local authorities to target 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 to help make the determination 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 sooner we act, the more expensive it will become to eradicate.
- Currently 14 counties in Nebraska are reporting common teaestal and only 7 counties reporting cutleaf teasel. This means the public is not aware of this problem early before it gets widespread.
- 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 most 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.
- Teasel is not eaten by livestock and has no forage value. Livestock will avoid these areas.

Description
Although usually called a biennial, teasel is better described as a monocarpic perennial. The plant grows as a basal rosette for a minimum of one year until enough resources are acquired and up tall flowering stalks and dies after flowering. The period of time in the rosette stage varies depending on the amount of time needed to acquire enough resources for flowering to occur.

Identification
Root: Taproot up to 2 feet long. Rosettes: Both rosettes are similar when small. As they get bigger, the cutleaf leaves are more deeply lobed than the common teasel.

Height: Cutleaf teasel typically will grow taller than common teasel. Cutleaf grows up to 8 feet tall while common may reach 6 feet tall.

Leaves: The leaves on cutleaf teasel will be irregularly–pinnaately lobed and prominently fused toward the bases, forming a cup that may hold water. Common teasel leaves remain oblong to lanceolate. In both species, the leaves are opposite, stemless and prickly, especially on the lower midrib.

Bracts: The bracts on the cutleaf teasel are shorter, more leaf-like around the base of the seedhead, the common teasel bracts are usually thinner and extend up past the seedhead.

Flower: Cutleaf teasel will usually have white flowers and will flower from July to September while the common teasel will have lilac to lavender flowers and will flower from April to September.

Distribution
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, moving from the northeast 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 sometimes is used as a horticultural plant, which has aided in its expansion in its North American range. In particular, the use of teasel in flower arrangements has aided its dispersal, especially to cemeteries.

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 sedge meadows. Lack of natural enemies allows teasel to grow and spread, 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, including soil adhered 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 is 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 pint per acre
- Overdrive 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 has proven effective for musk thistle and can provide the end user with the best results. Many companies do extensive research to provide the best control because herbicides readily available for treatment. Know the habit in which the noxious weeds grow and learn the 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 weeds have 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.

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 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 overlooking a mature musk thistle with herbicide and watching it kick up and turn brown, one needs to ask themselves if they really accomplished anything? These untimely treatments are usually non-effective or cost efficient.

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. Follow 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, be sure to check the number of herbicide labels to see which product will work for you and your situation.

If a herbicide is used but fails, it is usually due to one of the following reasons:

- 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 weeds have created.

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