

WEED AWARENESS

10 Years of Growth

from previous page
for phragmites to establish. Left untreated, it will create a monoculture and crowd out all other vegetation creating a dense jungle of vegetation that native birds, furbearing mammals and even deer cannot penetrate. Phragmites will eliminate natural refuge and feeding grounds for invertebrates, fish and waterfowl as well as limit recreation values for birdwatchers, walkers, naturalists, boaters and hunters.

In some cases, it will close off flowing water and create flooding potential. The tender-dry vegetation left in the fall creates the potential for fast-spreading fire that can threaten surrounding areas including homes and buildings.

How Does Phragmites Spread?

Phragmites can be spread by wind or water dispersal of seeds or by intentional introduction by people. Each mature plant can produce as many as 2,000 seeds annually. Seed viability tests performed by the State of Nebraska Seed Lab showed 75 percent viable seed from mature heads collected in Lancaster County.

Most commonly however, phragmites spreads by horizontal above-ground stolons and underground rhizomes. (Stolons grow from an existing stem and are thin, horizontal structures that grow above-ground, sprouting new plants. Rhizomes are underground horizontal stems that also send out roots and shoots to start new plants). Stolons can grow dozens of feet annually and new plants can sprout at nodes located every few inches along the stolon.

Rhizomes, which create thick underground mats, can expand at the rate of 30 feet per year, with new plants sprouting all along the rhizome. In addition, rhizomes broken by natural actions, such as waves, water current in streams or man-made actions — such as dredging or disking — readily root down in new locations. Maintenance equipment used in a wetland with phragmites must be carefully cleaned to avoid transporting phragmites to new locations; it only takes a small piece of rhizome to start new plants.

Phragmites has also been unintentionally introduced by people planting it as a garden ornamental, using it for floral displays or camouflage for duck blinds. Even phragmites that appears to be dead is likely to have viable seeds and rhizomes.

Is There Anything Good About Phragmites?

Uses and values: It is readily eaten by cattle and horses when it is immature. Seeds are eaten by waterfowl, and the rhizomes and stems are eaten by muskrats. Redwing blackbirds preferentially nest in common reed. However, this is also how the plant is spread from one location to another.

Historical: Pieces of the stems were used to make pen points in early America. Some Native Americans used common reed for thatching, mats and arrow shafts. Rhizomes were used as emergency food.

How Can We Control the Spread of Phragmites?

Phragmites control requires a commitment to an integrated and long-term management approach. The easiest way to control phragmites is to begin a control program as soon as it is observed on your property, before the plants become well

established. Few techniques are fully effective when used alone, and reinvasion by phragmites is likely when the management strategy is not maintained.

To achieve desired results, herbicides must be used in conjunction with mechanical methods or burning, and re-applied in subsequent years to spot-treat individual plants or patches of plants not completely eliminated in the first application. University of Nebraska's Guide for Weed Management list herbicide control options as:

- Aquatic glyphosate at 96-120 ounces per acre + surfactant.
- Imazapyr at 2-4 pints per acre + surfactant.
- Apply during the growing season before flower or in the fall before frost.

Use only herbicides labeled for aquatic sites when applying in and around water and wetlands. Always read and follow the label directions for proper use.

Will My Phragmites Come Back Once I've Treated?

Large, dense phragmites stands will likely require follow-up spot treatments, and phragmites will continue to re-establish from remnant and neighboring populations, as well as the existing seedbank. Phragmites typically begins to recover two to three years after treatment and will become re-established unless follow-up annual maintenance occurs, including spot treatment with herbicides. Scout the area several times during the late summer and into the fall looking for any sign of regrowth. Re-treat any phragmites you find re-sprouting. This will likely take several years and you will need to be persistent in order to continue to weaken the root structure.

How Can I Learn More About Phragmites?

Contact the Lancaster Weed Control Authority office for assistance in developing a management plan. Visit our website <http://lancaster.ne.gov/weeds> and click on the link for the "Landowners Guide for Controlling Phragmites."

Teasel

from previous page
material from Europe. Teasel has spread rapidly in the last 20-30 years, spreading from Canada to 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 expansion of 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 proliferate. If 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 30-80 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 are 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 have the capacity to be water-dispersed, which may allow seeds to be dispersed over longer distances. Immature seedheads of teasel are capable of producing viable seed.

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.

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

Leaves: The leaves of cutleaf teasel are deeply lobed and prominently fused toward the bases, forming cups that may hold water. Common teasel leaves are oblong and taper to a point. In both species the leaves are opposite, stemless and prickly, especially on the lower midrib.

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

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

Impacts

Both teasels form large, dense stands that choke out desirable plant species. This can reduce forage, wildlife habitat and species diversity. Teasel is not eaten by livestock and has no forage value. Because of the thorny nature of the plant, livestock avoid the areas where teasel grows.

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.

Infested sites will need to be monitored and treated repeatedly until the seedbank is depleted. Teasel seedbanks

remain viable for a relatively short time, 2-5 years. With diligent control, eradication may be feasible within this time frame.

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. The University of Nebraska 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 ounces per acre.
- Garlon 3A at 3-4 pints per acre.
- Overdrive at 4-8 ounces per acre.

Always read and follow the label directions.

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

Failed or 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 that may be 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.

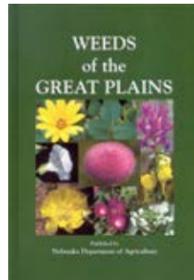
Prescribed burning alone is ineffective. Prescribed burning may kill some of the isolated small seedlings, but is ineffective against dense seedlings or large rosettes.

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 form to Lancaster County Weed Control for your chance to win the "Weeds of the Great Plains" book published by Nebraska Department of Agriculture. **All entries must be postmarked by April 15.**

If your name is drawn, the book will be mailed to you. This information will not be used to contact you with any other offer.



Enter drawing to win:

Name _____

Address _____

City/State/Zip _____

Send completed word find to: Lancaster County Weed Control, Weed Book Drawing, 444 Cherrycreek Rd., Bldg. B, Lincoln, NE 68528

Annual
Biennial
Canada thistle
Common Teasel

Cutleaf Teasel
Diffuse Knapweed
Giant Knotweed
Herbicide

Introduced
Invasive
Japanese Knotweed
Lancaster

Leafy spurge
Mapping
Musk thistle
Noxious weeds

Perennial
Phragmites
Plumeless thistle
Purple loosestrife

Saltcedar
Sericea lespedeza
Spotted Knapweed
Weed watcher

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