

The Weed Watch

The



A Publication of Panhandle Research Integration for Discovery Education Weed Management Area in conjunction with High Plains, Sandhills, Platte Valley, Southwest and Twin Valley Weed Management Areas and the Middle Niobrara Weed Awareness Group

Fall 2021



Invasive phragmites spreads rapidly, forms a dense monoculture and crowds out native vegetation.

Invasive Phragmites

Height: Up to 15 feet tall.

Stems: Hollow, green with yellow nodes, dull and rigid stem.

Leaves: Green, up to 20 inches long and 1-1.5 inches wide. They are arranged all along one side of a stem.

Flowers: Bloom July through August; purple to gold highly branched panicles; grayish seeds appear fluffy due to the silky hairs that cover each seed.

Spread: Rhizomes, stolons and seeds. Below ground, invasive phragmites forms a dense network of roots, which can spread both horizontally, and downward several feet. Fragments of rhizomes can be transported from infested sites upstream, creating new populations great distances downstream.

Invasive Phragmites

By Kristi Paul, PRIDE member

Phragmites australis australis was added to the Nebraska Noxious Weed Act in 2009. As county weed superintendents across the state worked to control purple loosestrife and saltcedar along rivers and streams, the invasion of phragmites became obvious. This non-native perennial grass grows along rivers, lakes and pond edges; as well as roadside ditches, wetlands and other low wet areas. It is often found in dense stands made up of both living stems and standing dead stems.

Invasive phragmites affects the environment by reducing wildlife habitat, decreasing plant diversity, and trapping sediments, which leads to altered water levels. Stands along roadsides can obstruct the view of drivers, while stands along shorelines can obstruct the lake view and restrict access for swimming, fishing and hunting.

MANAGEMENT OF INVASIVE PHRAGMITES

Mechanical:

Repeated mowing may produce short-term results. Hand pulling is not feasible due to the tough root and rhizome network. Root removal is not effective, as small or broken portions of rhizomes can create new plants.

Fire:

Prescribed burning has been effective when used in conjunction with other management practices, such as herbicide treatments or water level management. For more information about prescribed burns, see the USDA Forest Service Fire Effects Information System "*Phragmites australis* Fact Sheet."

Herbicide:

There are many factors to consider when treating phragmites. Accessibility can be difficult, requiring equipment such as an amphibious ATV, airboat, or helicopter. Applications of herbicide for invasive phragmites should be site-specific, as these herbicides can also have an impact on native vegetation. Properly certified applicators, aquatic herbicides, and aquatic surfactants will be necessary in many instances. Late summer or fall herbicide applications have been shown to provide the greatest control of phragmites. Two herbicides recommended for use in controlling invasive phragmites are an imazapyr based herbicide labeled for aquatic use and aquatic glyphosate. Due to the extensive root system of invasive phragmites, several applications may be necessary. Monitoring and follow-up treatment are necessary to control shoots from the surviving root system.

Prevention:

Learn to identify and watch for aquatic invasive plants such as phragmites, saltcedar, and purple loosestrife on the edges of ponds, creeks, and streams, in meadows, around water or waste facilities, or on roadsides near your property. The old adage "an ounce of prevention is worth a pound of cure" is true in noxious weed control.

Citations:

hort.extension.wisc.edu/articles/invasive-phragmites/;
nyis.info/invasive_species/common-reed
Stubbenieck, Coffin and Landholt, 2003. *Weeds of the Great Plains*.
Published by the Nebraska Department of Agriculture in cooperation with the University Nebraska-Lincoln.



Native phragmites typically occurs in low-density stands often commingled with other native plants.

Native Phragmites

Height: 3 to 7 feet tall

Leaves: Yellow-green

Stem: Smooth and shiny

Flowers: Sparse plumelike, attached to branches.

Commonly grows in low density stands.

Often commingled with other native plants.

Nebraska Riparian Vegetation Management Task Force

On May 1, 2007, Governor Dave Heineman signed into law LB 701, comprehensive water legislation that included riparian vegetation management activities originally included in a bill introduced by Senator Tom Carlson, LB 458. With an emergency clause attached, the legislation went into effect immediately. Sections 1 and 2 of the legislation created the Riparian Vegetation Management Task Force (RVMTF) and assigned it specific responsibilities. The goal of this legislation was to improve the conveyance of water throughout Nebraska's rivers and streams. This legislation created a grant program for management of riparian vegetation, and stated the Legislature's intent to appropriate \$2 million annually for this purpose. This legislation had a sunset date of June 30, 2009.

After the sunset date, members of the Nebraska Weed

Control Association and Weed Management Areas continued to work on Nebraska's riparian areas that was previously funded by the Nebraska Legislature. They performed control activities with limited funding. These groups did not want to lose ground on the work that was previously completed. However, without guidance, funding and support from the Legislature, the Nebraska Weed Control Association was concerned that invasive plants were greatly affecting waters of the state and lobbied for new Legislation to help Nebraska meet the water needs of the state.

The RVMTF was re-created in statute to bring multiple partners and stakeholders together to address the concern of invasive plants obstructing Nebraska's river basins. LB 1038 was passed by the Nebraska state legislature on April 12, 2016, and signed into law by Governor Pete Ricketts on April

18, 2016. This legislation created the framework for the Task Force to address the riparian needs of the state and continue the efforts started by LB 701..

View our brochure, *Keeping Water in Nebraska's Rivers and Streams Flowing*, for more information.

MISSION

The Riparian Vegetation Management Task Force shall develop and prioritize riparian vegetation management goals and objectives, analyze the cost effectiveness of available vegetative treatment, and develop plans and policies to achieve such goals and objectives. The RVMTF currently has \$450,000 available annually to Weed Management Area's through a competitive grant program.



SOUTHWEST WEED MANAGEMENT

COORDINATOR: Jim Bowen

COUNTIES IN WMA: Chase, Dundy, Frontier, Hayes, Hitchcock, Perkins, and Red Willow.

CURRENT PROJECTS: Aerial Spraying phragmites in the Republican River, Dundy County. Aerial Spraying phragmites in Red Willow Creek, Hayes County. Utilizing ATV's to spray patches of phragmites in Republican River, Red Willow County. Eastern red cedar and Russian olive removal in all counties.

INVASIVE WEED CHALLENGES: Phragmites and saltcedar infestations

in rivers, creeks and streams. Without implementing control measures these populations will continue to expand in area and density levels resulting in reduction of water availability and natural flows. Increasing populations of Eastern red cedar and Russian olive trees along rivers, creeks and streams. Studies have shown that dense stands will uptake available moisture, diminish runoff and deplete flows.

RIVERS OR STREAMS: Republican River, Frenchman Creek, Red Willow Creek, Medicine Creek, Arikaree Creek, and Stinking Water Creek.

CONTROL METHODS BEING USED: Aerial spraying and ground application of herbicide on phragmites and saltcedar. Mechanical removal (cutting and grinding) Eastern red cedar and Russian olive trees.

SOURCES OF FUNDING UTILIZED: Nebraska Environmental Trust, Nebraska Department of Agriculture, Upper Republican Natural Resources District, cost share in-kind work and funding from landowners and counties.

PARTNERS INVOLVED: Private landowners, Chase, Dundy, Frontier, Hayes, Hitchcock, Perkins, Red Willow Counties, Upper Republican NRD, and Middle Republican NRD.



Phragmites infestation near McCook NE, is part of a project this fall.

SOUTHWEST WEED MANAGEMENT

Project Coordinator	Chase County	Dundy County	Frontier County	Hayes County	Hitchcock County	Perkins County	Red Willow County
Jim Bowen	Brandon Beard	Richard Delin	David Luke	Boyd Gigax	Bill Hagemann	Michael Dolezal	Josh Mullen
308-928-2410	308-882-7520	308-423-2652	308-367-8304	308-286-3461	308-334-5852	308-352-7955	308-345-4333

**WEED
MANAGEMENT
AREA Update**



Phragmites spraying by airboat.

TWIN VALLEY WEED MANAGEMENT

COORDINATOR: Zach Jones

COUNTIES IN TWIN VALLEY WMA: Adams, Clay, Fillmore, Franklin, Furnas, Harlan, Nuckolls, Thayer, and Webster.

CURRENT PROJECTS: Invasive Phragmites Projects

INVASIVE WEED CHALLENGES: Invasive phragmites, Canada thistle, musk thistle, Eastern red cedar, and bull thistle.

RIVERS OR STREAMS: Republican River

CONTROL METHODS BEING USED: Mechanical clearing, aerial application, and terrestrial application using ATV, Argo and an airboat.

SOURCES OF FUNDING UTILIZED BY TWIN VALLEY WMA: Nebraska Environmental Trust and Nebraska Department of Agriculture.

PARTNERS INVOLVED: Trailblazer RC&D, Lower Republican and Little Blue NRD, US Army Corps of Engineers, Nebraska Department of Agriculture, Nebraska Extension, Adams, Clay, Fillmore, Franklin, Furnas, Harlan, Nuckolls, Thayer and Webster County Weed Superintendents.

SANDHILLS WEED MANAGEMENT

CHAIRMAN: Jimmy Petersen, Garfield County Weed Superintendent

COUNTIES IN SANDHILLS WMA: Covering the largest area in the state, the counties included are Arthur, Blaine, Boone, Boyd, Brown, Cherry, Custer, Garfield, Grant, Greeley, Holt, Hooker, Keya Paha, Logan, Loup, McPherson, Nance, Rock, Thomas, Valley and Wheeler.

CURRENT PROJECTS: The counties with invasive riparian vegetation concerns are able to coordinate control efforts on a river that spans several counties in a planned manner. Current projects include control of purple loosestrife and phragmites on the Loup River, and surveying projects for yellow flag iris in Holt and Boyd counties. Keya Paha County just finished up a Russian olive tree cutting project on the Keya Paha River.

INVASIVE WEED CHALLENGES: Invasive phragmites, purple loosestrife, Russian olive and yellow flag-iris.

RIVERS OR STREAMS: Loup River System and Calamus River.

CONTROL METHODS BEING USED: Aerial application, helicopter, airboat and County spray trucks.

SOURCES OF FUNDING UTILIZED BY SANDHILLS WMA: Nebraska Department of Agriculture Riparian Vegetation Management Grants, Landowner Cost Share and Cash Match, and National Forest Service Grants in eligible counties.

PARTNERS INVOLVED: Private Landowners, The National Forest Service and Nebraska Game and Parks Commission.

**WEED
MANAGEMENT
AREA Update**



Superintendents examining phragmites to determine if it is native or invasive.

**WEED
MANAGEMENT
AREA Update**



Platte River at Darr Bridge has been cleared of phragmites that severely restricted the water flow in past years. Herbicides were applied by helicopter and by airboat.

PLATTE VALLEY WEED MANAGEMENT

COORDINATOR - Rich Walters

COUNTIES IN PLATTE VALLEY WMA: Buffalo, Dawson, Gosper, Hall, Hamilton, Howard, Kearney, Keith, Lincoln, Merrick, Phelps, Polk, and Sherman.

CURRENT PROJECTS: Maintaining invasive vegetation control within riparian corridors to ensure flow conveyance. Surveying and monitoring for watch list species and direct control, implementing the Early Detection Rapid Response protocol.

INVASIVE WEED CHALLENGES: Invasive phragmites, purple loosestrife and yellow-flag iris.

RIVERS OR STREAMS: Platte River and its tributaries.

CONTROL METHODS BEING USED: Direct herbicide application by helicopter, airboat and ATV's.

SOURCES OF FUNDING UTILIZED BY PLATTE VALLEY WMA: Nebraska Department of Agriculture, Nebraska Environmental Trust, Platte River Recovery and Implementation Program, Ducks Unlimited, Twin Platte NRD, Central Platte NRD, Tri-Basin NRD, Nebraska Public Power District, Central Nebraska Public Power and Irrigation District, Audubon, Whooping Crane Trust, The Nature Conservancy, Lower Loup NRD.

PARTNERS INVOLVED: Private landowners, in addition to all funding partners.

PLATTE VALLEY WEED MANAGEMENT AREA

Project Coordinator • Rich Walters – 308-390-2511
Buffalo County • Bret Stubbs – 308-236-1244
Dawson County • Marty Craig – 308-324-3771
Hall County • Rob Schultz – 308- 385-5097

Hamilton County • Jeremy Brandt – 402-604-0226
Howard County • Rob Schultz – 308-380-2099
Keith County • Tim Ryan - 308-284-6601
Lincoln County • Todd Herndon 308-532-4939

Merrick County • Dean Hartwig – 308-946-2881
Phelps County • Bobby Hamilton – 308-995-8485
Polk County • Jim Carlson – 402-747-2921
Sherman County • Mitch Dzingle – 308-745-1513 Ext 111

**WEED
MANAGEMENT
AREA Update**

MIDDLE NIOBRARA WEED AWARENESS GROUP



Purple loosestrife invades the banks of the Niobrara River in MNWAG Counties.

COORDINATOR: Scott Erthum, Brown County Weed Superintendent

COUNTIES IN MIDDLE NIOBRARA WEED AWARENESS GROUP: Portions of Brown, Cherry, Keya Paha and Rock. MNWAG is narrowly defined as a one-mile corridor on each side of the Niobrara River that is Federally designated as a "Wild and Scenic River."

CURRENT PROJECTS: Working to control noxious weeds growing along the Niobrara River in all four counties.

INVASIVE WEED CHALLENGES: Purple loosestrife and invasive phragmites. A recent survey found yellow flag iris, so we will use Early Detection and Rapid Response to control it.

RIVERS OR STREAMS: Niobrara River and its tributaries.

CONTROL METHODS BEING USED: Biological control insects have been released and established on purple loosestrife. Helicopter and aerial herbicide application, as well as a cost-share herbicide program with landowners.

SOURCES OF FUNDING UTILIZED BY MNWAG: Nebraska Department of Agriculture Riparian Vegetation Management Grant, Niobrara River Council, Landowner Cost Share.

PARTNERS INVOLVED: Private Landowners, National Park Service, Nebraska Game and Parks Commission, The Nature Conservancy, The Niobrara River Council and Partnering County Weed Superintendents.

**WEED
MANAGEMENT
AREA Update**



Using a helicopter to spray leafy spurge along Wolf Creek in northern Sheridan County.

PANHANDLE RESEARCH INTEGRATION FOR DISCOVERY EDUCATION (PRIDE)

CHAIRMAN: Seth Tausan, Sheridan County Weed Superintendent.

COUNTIES IN PRIDE: Dawes, Sheridan and Sioux.

CURRENT PROJECTS: Noxious weed control on Pine and Rush Creek, both tributaries of the Niobrara River in Sheridan County. Leafy spurge control on Wolf Creek in northern Sheridan County, which drains into South Dakota.

INVASIVE WEED CHALLENGES: Phragmites, leafy spurge, houndstongue, Canada thistle, Scotch thistle, and seeing an increase of poison hemlock.

RIVERS OR STREAMS: Pine Creek, Rush Creek and Wolf Creek are the current project areas.

CONTROL METHODS BEING USED: ATV, airboat, helicopter, and aerial survey.

SOURCES OF FUNDING BEING USED: Nebraska Department of Agriculture Riparian Vegetation Management Grant.

PARTNERS INCLUDED: Private landowners, Upper Niobrara White NRD and Nebraska Game and Parks Commission.

**WEED
MANAGEMENT
AREA Update**

HIGH PLAINS WEED MANAGEMENT



Russian olive regrowth, four days after herbicide application.

COORDINATOR - Clint Reisen

High Plains Weed Management Association (HPWMA) works to remove invasive plant species along the North Platte River, as well as lakes, ponds, streams, tributaries, creeks and any wetland that has a direct impact on the North Platte River. The HPWMA covers Banner, Cheyenne, Deuel, Garden, Kimball, Morrill, Scotts Bluff, and southern Sioux Counties in the southern Panhandle. Russian olive, saltcedar, and phragmites are the invasive species that the program works to remove from our local waterways and wetlands. HPWMA utilizes grant funds from the Nebraska Environmental Trust to accomplish this work.

Clint Reisen, the field coordinator for the program, has been meeting with landowners this summer to discuss the program, answer questions and address concerns. One concern that is often discussed is re-growth of Russian olive after removal is completed. HPWMA cost shares with landowners to spray re-growth, and the contractors that are hired use low-impact equipment to complete the work. Late summer and fall before the first freeze is an ideal time to spray Russian olive re-growth. During this time, regrowth

is in full leaf stage and will absorb the chemical very well. Within 5 days, the regrowth will usually be dead; if not, another treatment may be needed. Over the past fourteen years, HPWMA has removed Russian olive from thousands of acres and many of those acres have been maintained by diligent landowners.

Currently, HPWMA is working on projects that involve 747 acres of Russian olive removal and 351 acres of spraying.

Fall is also a good time to apply herbicide on saltcedar and phragmites. In times of drought like the one we are experiencing this year, landowners are reminded of how important it is to stay on task of removing the water wasting invasive plants. Along the waterways and in pastures, grass is short, making Russian olive, saltcedar and phragmites easy to identify, and effective spraying or removal can be accomplished. High Plains Weed Management is a collaborative group that relies on landowners for project ideas. HPWMA continues to have funding to help landowners address the removal or regrowth of Russian olive, saltcedar, and phragmites. Contact Clint Reisen to find out more about these programs. (308) 633-1264 or clinthpwma@allophone.com.

HIGH PLAINS WEED MANAGEMENT AREA

Project Coordinator
Clint Reisen
308-633-1264

Banner County
Buck Hottell
307-214-5481

Cheyenne, Deuel &
Garden Counties
Cris Burks
308-760-1111

Kimball County
Rick Wangler
308-235-2681

Morrill County
Cody Renkoski
308-203-1454

Scotts Bluff County
Jeff Schledewitz
308-436-6709

Sioux County
Nick Sanderson
308-668-9453

Prairie Larkspur – Just a Word of Caution



Prairie
larkspur



By Scott Erthum, Brown County Weed Superintendent

There are certain words we hear that we usually associate with positive connotations. Some examples are the words natural, organic, and native. However, there are some native plants that, under certain situations, cause issues for livestock that utilize the Nebraska prairies.

One such plant that can cause problems for cattle producers is *Delphinium virescens* or prairie larkspur. This plant is found across the Great Plains,

though usually not in concentrations high enough to cause issues. Prairie larkspur is easy to spot when it is blooming in May and June. Larkspur plants grow up to 3 feet tall, with slender stems and narrow leaves. The flowers, which range from gray-white to blue tinged, often bloom just above the surrounding grass. The flowers also have a distinctive spur on the back.

There are times, however, when growing conditions favor the explosive growth of prairie larkspur. The

conditions that are very favorable for seed germination are cool, wet springs followed by a warm, dry spell. When these weather conditions occur, cattlemen need to pay special attention to the prairie larkspur. This plant contains several alkaloids that when ingested by cattle, can cause death. The alkaloids the plants contain causes interference with nerve functions in cattle and cause respiratory failure and bloating. Cattle usually don't eat larkspur, but when the plant density is high enough and the grazing gets short, they will eat it. South Dakota State Extension reports that for a one-thousand pound cow, 5 pounds of larkspur eaten within 1 hour is a lethal dose.

I see these plants every year in the pastures, but seeing just a few here and there isn't a reason to become worried. The time to be concerned about prairie larkspur is when there are concentrated patches of them throughout the pasture. Cattle tend to start eating the larkspur from the beginning of the bloom period to early seedpod set, which is when the plant is most toxic. The best practice for dealing with it is to move the cattle out of the pasture until after the seed has dispersed. Dried plants apparently no longer carry the alkaloids.

Interestingly enough, horses stay clear of prairie larkspur, Goats are immune to the alkaloids, and sheep would have to eat six times as much as cattle for it to be lethal.

Don't panic when you see this dainty little native plant growing in the pasture. Assess the plant density, watch for the blooming time and act accordingly to prevent your cattle from eating the plant. Nationally, there are death losses every year to this plant but with management, it can be minimized. Elimination of the plant with spraying isn't or shouldn't be a goal, but learning to coexist with prairie larkspur is possible.

Citations: Farrar, Jon, 2011. *Field Guide to Wildflowers of Nebraska and the Great Plains*; <https://extensionpublications.unl.edu/assets/pdf/ec3037.pdf>, Stubbendieck, Coffin and Landholt, 2003. *Weeds of the Great Plains*.

2021 Leafy Spurge Working Task Force Conference

By Scott Erthum, LSWTF Chairman

The Leafy Spurge Working Task Force Field Tour and Conference was held on Aug. 31-Sept. 1 at the One-Box Convention Center in Broken Bow, NE. Participants of the LSWTF Field Tour and Conference included several County Weed Superintendents, members from Nebraska Department of Agriculture, Nebraska Game and Parks Commission, South Dakota Department of Agriculture, and several local landowners.

The tour participants traveled throughout Custer County, viewing sites that contained cut leaf teasel, spotted knapweed, invasive phragmites, and saltcedar. The final stop of the tour was at the Jim Jenkins Ranch to view results of using a prescribed burn to control Eastern red cedar.

The group returned to the One-Box Convention Center where they enjoyed a steak dinner sponsored by Trotters Inc.

Local cowboy poet R.P. Smith provided entertainment for the group.

On September 1, the conference included: an update on the Method® herbicide label by Scott Onutka of Bayer Crop Science. Scott cautioned that manure from hay treated with Method® can cause issues with crops when spread on a field. Other topics included testing new combinations of existing herbicides, the Canada Thistle Rust project, the 30-30 Initiative, and more on the prescribed burn on the Jenkins ranch. **One young presenter was Ben Meyer from Gordon, NE.** He is a 15-year-old freshman student who discovered an unknown population of yellow flag iris at Cottonwood Lake SRA in Cherry County. Because of his quick actions, a rapid response was mounted and the problem quickly addressed.



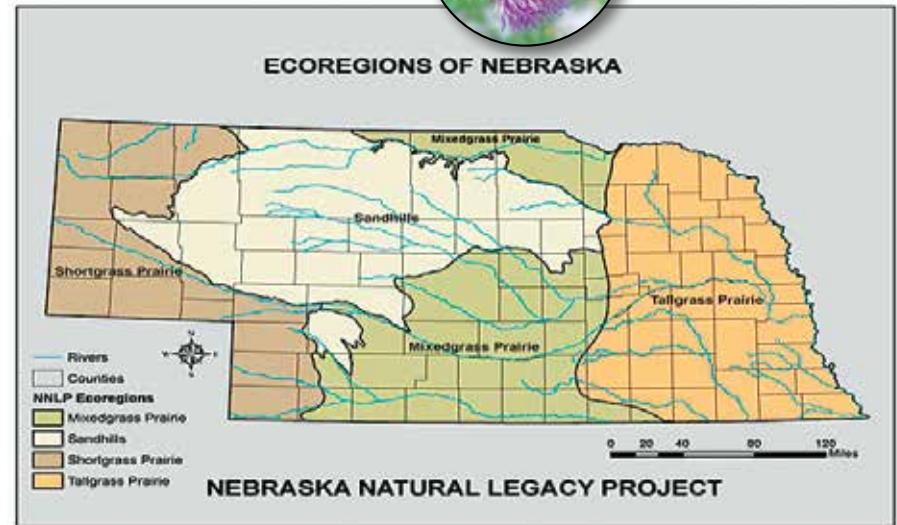
Ben Meyer of Gordon identified an unknown patch of yellow flag iris at Cottonwood Lake SRA in Cherry County.

Invasive Plants Watch List: 2021



Please visit neinvasives.com to see all invasive species - plant species, aquatic species, insects, and others.

These lists were developed to provide a region-based list of invasive plants to be "on the watch for" in Nebraska. Each ecoregion's species were categorized based on early detection and rapid response potential.



CATEGORY 1: Future Invasive Species

These 4 plants are the same for all ecoregions in Nebraska, as they pose a significant risk if introduced. The aquatic weeds are just one boat ride away from invading any Nebraska lake.



Giant Reed



Oriental Bittersweet



Medusahead



Flowering Rush

FLOWERING RUSH
GIANT REED
MEDUSAHEAD
ORIENTAL BITTERSWEET
PERENNIAL SOW THISTLE
RIPGUT BROME
VENTENATA
YELLOW BEDSTRAW

CATEGORY 2: Shortgrass Prairie Ecoregion

ABSINTH WORMWOOD
COMMON AND
EUROPEAN BUCKTHORN
DALMATION TOADFLAX
HENBANE
HOUNDSTONGUE
RUSSIAN KNAPWEED
ST. JOHNSWORT
YELLOW FLAG IRIS



Absinth Wormwood



Dalmation Toadflax



Houndstongue



Yellow Flag Iris

CATEGORY 2: Sandhills Ecoregion



St. Johnswort



Absinth Wormwood



Sulfur Cinquefoil



Camphorweed

- ABSINTH WORMWOOD
- BLACK KNAPWEED
- CAMPHORWEED
- COMMON AND EUROPEAN BUCKTHORN
- COMMON TANSY
- HOUNDSTONGUE
- PERENNIAL SOW THISTLE
- ST. JOHNSWORT
- SULPHUR CINQUEFOIL
- YELLOW BEDSTRAW
- YELLOW FLAG IRIS

CATEGORY 2: Mixed grass Prairie Ecoregion

- ABSINTH WORMWOOD
- AMUR HONEYSUCKLE
- AUSTRALIAN BEARDGRASS
- CAMPHORWEED
- COMMON AND EUROPEAN BUCKTHORN
- COMMON TEASEL
- COMMON TANSY
- CUTLEAF TEASEL
- GARLIC MUSTARD
- PERENNIAL SOW THISTLE
- QUEEN ANNE'S LACE
- RUSSIAN KNAPWEED
- ST. JOHNSWORT
- SULPHUR CINQUEFOIL
- WILD PARSNIP
- YELLOW FLAG IRIS



Perennial Sow Thistle



Common and European Buckthorn



Caucasian Bluestem



Common Teasel

CATEGORY 2: Tallgrass Prairie Ecoregion



Cutleaf Teasel



Queen Anne's Lace



Japanese Honeysuckle

- | | |
|-------------------------------|-----------------------|
| ABSINTH WORMWOOD | ORIENTAL BITTERSWEET |
| AMUR HONEYSUCKLE | PERENNIAL SOW THISTLE |
| AUSTRALIAN BEARDGRASS | QUEEN ANNE'S LACE |
| BLACK KNAPWEED | RUSSIAN KNAPWEED |
| COMMON AND EUROPEAN BUCKTHORN | SICKLEWEED |
| COMMON TEASEL | ST. JOHNSWORT |
| CUTLEAF TEASEL | WILD PARSNIP |
| FLOWERING RUSH | WINTER CREEPER |
| GIANT REED | YELLOW BLUESTEM |
| HOUNDSTONGUE | YELLOW FLAG IRIS |

The Invasive Plants Watch List also lists which counties in Nebraska have "County Added" noxious weeds. This list is described on page 11 of The Weed Watch.

The complete list of Invasive Plants in Nebraska along with species photos can be found at the Nebraska Invasive Species Project website: neinvasives.com

Weeds We Are Watching!

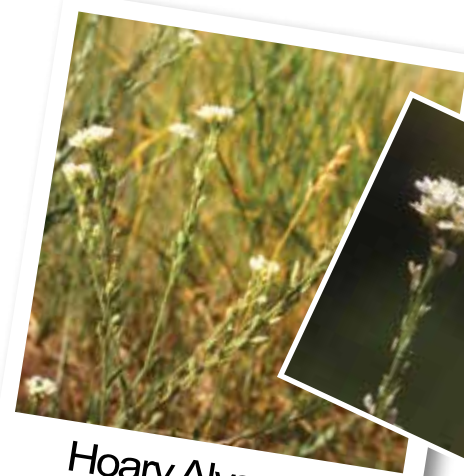
By Kristi Paul, PRIDE member

When “weed warriors” get together, we tend to talk about noxious weeds, invasive weeds, and weeds that are known to be invasive, but not on any list YET. Here are some of the plants that we are paying attention to, as they can be invasive. Please watch for these and other “plants out of place” on your property. If you are concerned about any of these species in your area, please contact your local County Weed Superintendent and share the location information with them.

Citations:
www.gardenia.net/guide/nativeplantalternatives.msuinvasiveplants.org;
update-techline/birdsfoottrefoil.invasive.org/weedcd/wow/poison-hemlock/pdf



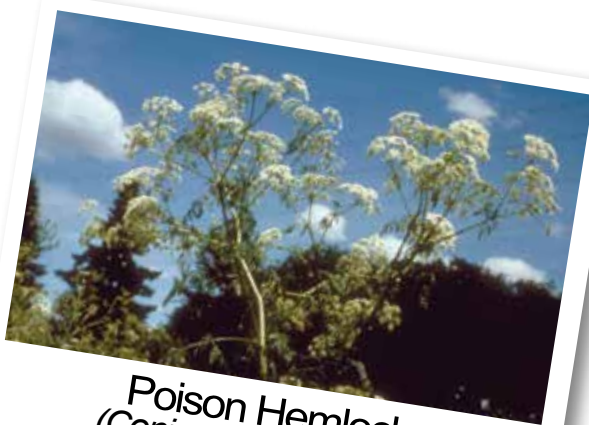
Baby's Breath
(Gypsophila paniculata)
 Perennial, plants grow up to 2-4 feet tall,
 Plants can spread quickly throughout an area.



Hoary Alyssum
(Berteroa icana l.)
 Annual to short-lived perennial, plants normally 7 to 30 inches tall.
 Decreases forage value, toxic to horses if hay contains over 30% hoary alyssum.
 Can remain toxic in alfalfa hay for nine months.



Oxeye Daisy
(Leucanthemum vulgare)
 Perennial, plants normally 10 to 24 inches tall.
 Invades and takes over roadsides, meadows, pasture and rangeland.



Poison Hemlock
(Conium maculatum L.)
 Biennial, plants normally 3 to 8 feet tall.
 Grows on roadsides, railroad tracks, stream banks, riparian areas.
 All parts are poisonous to humans and livestock.



Birdsfoot Trefoil
(Lotus corniculatus)
 Perennial, plants grow up to 2 feet tall.
 Invasive in prairie and pastures.

TWIN VALLEY WEED MANAGEMENT AREA • TWINVALLEYWMA.COM

Coordinator	Adams County	Clay County	Fillmore County	Franklin County	Furnas County	Gosper County	Harlan County	Kearney County	Nuckolls County	Thayer County	Webster County
Zach Jones	Eric Walston	Greg Shuck	Todd Boller	Doug Eckhardt	Todd Weverka	Marty Craig	Tim Burgeson	Joseph Anderson	Nick Elledge	Brian Schardt	Brian Pedersen
402-746-3560	402-461-7173	402-762-3652	402-366-1921	308-746-4022	308-268-2824	308-324-3771	308-928-9800	308-832-2854	402-879-1900	402-365-4366	308-470-1603

PHOTO CREDITS

PAGE 1
 Richard Gardner, Bugwood.org; Bernd Blossy, Cornell University; semanticscholar.org/paper/Phragmites-australis%3A-%27s-Not-All-Bad-Meyerson/ca924b9268c53fd54fc62556a4def7166291b23/figure/1

PAGE 2
 John Randall, TNC, Bugwood.org; Jim Bowen SWWM

PAGE 3
 Zach Jones, NDA; Scott Erthum, SWMA; Marty Craig, PWMA

PAGE 4
 John Burd, Miss. St. Univ., Bugwood.org; Seth Tausan, PRIDE WMA; Clint Riessen, HPWMA

PAGE 5
 Prairie larkspur, Dave Powell, USDA Forest Service

PAGE 6
 Giant Reed, John Ruter, Univ. GA; Oriental Bittersweet, Jill Swearingen USDI NPS; Medusahead, Steve Dewey, USU, Bugwood; Flowering Rush, Leslie Mehrhoff, UConn; Absinth wormwood, Yellow flag iris, Kristi Paul; Ecoregion Map, Nebraska Game and Parks

PAGE 7
 St. Johnswort, LL Berry, Bugwood.org; Absinth Wormwood & Cutleaf Teasel, Chris Evans Univ. Ill, Bugwood; Sulfur Cinquefoil, Theodore Webster, USDA ARS; Bugwood; Camphorweed, Rebekah D Wallace, Univ. GA; Perennial Sow Thistle, Ohio St. Extension; Common & European Buckthorn, Robert Videke, Doronicum Kit, Bugwood; Caucasian Bluestem, Mike Haddock, kswildflower.org; Common Teasel, Steve Dewey, USU; Queen Anne's Lace, Rob Rutledge, Sault College; Japanese Honeysuckle, James Allison, GDNR, Bugwood;

PAGE 8 - Baby's breath, Julia Scher, USDA APHIS, PPQ; Hoary Alyssum, John Randall, TNC, Bugwood.org; Catherine Herms, The Ohio St. Univ., Bugwood; Birdsfoot trefoil, Rob Rutledge,

Sault College; David Cappaert, Bugwood.org; Poison hemlock, Eric Coombs, OR Dept of Ag, Bugwood.org; Oxeye Daisy, David Stephens, Bugwood.org

PAGE 9
 St. Johnswort, Becca McDonald and Rob Rutledge, Sault College, Bugwood.org; Bryson Hellmuth, Nat. Resource Spec, Army Corps of Engineers

PAGE 11
 Field bindweed, Woollyleaf Bursage, Howard F. Schwartz, CSU, Bugwood; Bull thistle, Loke T. Kok, VPI Bugwood; John Cardina, Ohio St. Univ.; Scotch Thistle, Houndstongue, Steve Dewey, Utah St. Univ. Bugwood; Yellow Flag Iris, Houndstongue, Yellow

Bedstraw Kristi Paul, Common Mullein, K George Beck & James Sebastian, CSU;

PAGE 12
 Canada thistle, Bonsak Harreraas, Bioforsk, NAIER Bugwood; Musk thistle, Spotted Knapweed, Kristi Paul; Leafy Spurge, Barry Rice, Saracenia.com; Plumeless Thistle, Steve Dewey, USU; Saltcedar, Phragmites, Jill Swearingen, NPS, Bugwood; Diffuse Knapweed, Japanese Knotweed, Sara Rosenthal, USDA ARS; Giant Knotweed, Barbara Tokarska-Guzik, Univ. of Selesia; Purple Loosestrife, Eric Coombs, Ore. Dept. Ag; Sericea Lespedeza, Mike Haddock, kswildflowers.org;

Spotlight on St. Johnswort (*Hypericum perforatum* L.)

By Shelley Steffi, Wildlife Biologist II,
Nebraska Game and Parks Commission

OTHER NAMES: St. John's wort, Klamathweed, goatweed, common St. Johnswort

St. Johnswort is a deep rooted, perennial forb native to Europe and North Africa. It was introduced to the United States around 1700, likely for use in landscaping and for its medicinal benefits. St. Johnswort can be found throughout Nebraska. There are seven species of *Hypericum* found in Nebraska; this is the only species that is not native to the state.

St. Johnswort is aggressive and can decrease the quality of native prairies for wildlife and livestock. It produces two toxins, hypericum red and hypericin, both of which can cause photosensitivity, weight loss and, if consumed in sufficient quantities by grazers, death. **It is good to remember that this is the only species of *Hypericum* that produces these toxins. The native species are not toxic.**

HABITAT: St. Johnswort can grow in a wide variety of habitats. It can be found in riparian areas, rangeland, woodlands/forest edges, and along roads and railroads. It prefers well-drained gravelly or sandy soils.

PLANT DESCRIPTION: St. Johnswort is an early season forb, beginning as rosettes or rhizomes in the spring. It is a relatively long-lived species, which reproduces by seed and short rhizome. This species occurs as one- to many stemmed plants growing 1-3 feet tall. Leaves are oblong in shape, usually less than ½ inch long and opposite. Leaves are considered sessile, or they attach directly to the stem.

FLOWERS: Blooms June through August. Yellow flowers with black, glandular dots on the margins. Flowers are found in terminal clusters composed of 25-100 flowers per stem. Flowers are considered self-pollinators and can be pollinated by insects. This species can also produce asexually, meaning pollen is not needed to create viable seed.

SEEDS: Each flower produces a sticky pod full of seeds. Each plant can produce 15,000-30,000 seeds per year, and seeds remain viable for 10-15 years.

TREATMENT OF ST. JOHNSWORT: Work with insects on St. Johnswort began in 1945 and 1946, making this the first plant

species to be targeted with insects as biological control in the U.S. With this particular species, it is recommended that multiple treatment types be used to help control a population. Certain management options, such as tillage, grazing, and mowing aren't recommended. Tilling can break up and spread tillers to different fields. Due to its toxic nature, it is also not recommended to use grazing to control populations. Mowing can help to reduce flower and seed production, but can also help to increase vegetative production of the plant.

BIOLOGICAL: There are five species of insects that are being used to control populations of St. Johnswort in the U.S. These insect species each have habitat and climate preferences, so which species you would use depends on your location.

HERBICIDE: Different types of herbicides can be used to treat St. Johnswort. They can include aminopyralides, metsulfuron, picloram or 2-4D. Quantities a landowner uses should be based on the size of the infestation. For those quantities, you can either look at the recommendations in this paper, *Ecology and Management of Common St. Johnswort (Hypericum perforatum L.)* by Jim Jacobs, NRCS Invasive Species Specialist, Bozeman, Montana, or contact your local County Weed Superintendent for more information.

PRESCRIBED BURNING: This management practice is not recommended as a stand-alone in the treatment of St. Johnswort. However, using it in combination with herbicide or biological controls can prove to be effective.

HAND PULLING: This may be effective if you have a small population. If you do use hand pulling, make sure that you remove all of the small rhizomes that each plant can produce. In most cases, there will likely be follow up treatments necessary due to the existing seed bank.

CULTURAL: Conducting management of your prairies and pastures, promoting healthy plant communities can lead to a decrease in a St. Johnswort infestation. St. Johnswort is not a species that competes well in a healthy system.

*Citations: Alberta Invasive Species Council Fact Sheet on Common St. Johnswort. <https://abinvasives.ca/fact-sheet/st-johns-wort-common/>
Jim Jacobs, 2007. *Ecology and Management of Common St. Johnswort (Hypericum perforatum L.)*. U.S. Department of Agriculture NRCS Invasive Species Technical Note No. MT-14.
Nebraska Invasive Species Program. <https://neinvasives.com/species/plants/saint-johnswort>
Farrar, Jon. 2011. *Field Guide to Wildflowers of Nebraska and the Great Plains*. University of Iowa Press, Iowa City, IA.*



St. Johnswort, a Nebraska Watch List Weed.
This particular species can be toxic.

Canada Thistle Rust Update

By Bryson Hellmuth, Natural Resource Specialist, US Army Corps of Engineers

Last year, the U.S. Army Corps of Engineers and Twin Valley Weed Management Area released a Canada thistle rust fungus on Corps of Engineers property at Harlan County Lake. We first identified an area with a high infestation of Canada thistle. Within that area, a test block was selected, and the rust fungus was placed on the healthy Canada thistle plants by Army Corps of Engineers staff and the Harlan County Weed Superintendent.

The rust fungus is a biological control method with the purpose of killing healthy Canada thistle. Once established in an area, the rust fungus is harvested from infected plants and placed on healthy plants in a new location. The damage to the plant occurs when the rust infests the root system. Once infected, the Canada thistle plants naturally produce the rust fungus. After one year, the previously healthy Canada thistle is showing signs of infestation by the rust fungus.



The Canada thistle in the test plot at Harlan County Lake shows damage from the Canada thistle rust fungus.

PRIDE WEED MANAGEMENT AREA

Dawes County
Dan Wordekemper
308-432-3056

Sheridan County
Seth Tausan
308-327-5629

Sioux County
Nick Sanderson
308-668-9453



- Absinth wormwood
- Acre
- Aquatic
- Baby's breath
- Biennial
- Buckthorn
- Canada thistle
- Common tansy
- Dalmation toadflax
- Diffuse knapweed
- Field bindweed
- Herbicide
- High plains
- Houndstongue
- Invasive
- Label
- Landowner
- Leafy spurge
- MNWAG
- Musk thistle
- Native
- Noxious

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 M N W A G B A B Y S B R E A T H E D I R P S T O O R F C X O

HIDDEN WORD FIND - Responsible landowners take pride in their management efforts to control weeds on private lands 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 listed to the right in the puzzle above. Words are arranged horizontally, vertically, diagonally, forwards (left to right) and backwards (right to left) and top to bottom or bottom to top.

If you have comments about this puzzle, send your name and address to: PRIDE WMA, 5789 220th Lane, Gordon, NE 69343

Our Mission

PRIDE serves as a cornerstone to build and maintain partnerships between the many cooperators in invasive weed management and education. With this collaborative effort, a more efficient and successful approach to invasive weed management and awareness is achieved. PRIDE's efforts in pooling of funds and resources from contributors will result in a compounding of investments and rewards.



The Weed Watch...

Keep for future reference.

Pass on to a Future Farmers of America Student.

Recycle at your local recycling center

SANDHILLS WEED MANAGEMENT AREA - MIDDLE NIOBRARA WEED AWARENESS GROUP*

- WMA Office – 308-346-3393
- Arthur • Dave Hardin - 308-650-0369
- Blaine • Jason Hunt - 402-760-1209
- Boone • Robert Sandman - 402-741-1290
- Boyd • Terri Krysl - 402-394-7139
- Brown • Scott Erthum – 402-760-0093*

- Cherry • Barbara Small – 402-322-1067*
- Custer • Tim Conover – 308-872-2410
- Garfield • Jimmy Petersen – 308-214-0301
- Grant • Devan Polt – 308-529-1003
- Holt • Bill Babutzke - 402-340-6319
- Hooker • Neal Hayward – 308-546-2706

- Greeley • Vacant
- Keya Paha • Travis Mundorf – 402-497-3800*
- Logan, McPherson, Thomas
- Richard Cook 308-636-6157
- Loup • Zane Young – 308-214-0923
- Nance • Chad Borowiak – 308-536-2443

- Rock • Mitch Dean – 402-925-8255*
- Valley • Darrel Kaminski – 308-383-2701
- Wheeler • Doug Reiter – 308-654-3397

COUNTY-ADDED NOXIOUS WEEDS



Kristi Paul, PRIDE Board Member.

In addition to the twelve weeds that have been declared noxious in Nebraska, every county has the option to petition the Director of the Department of Agriculture to place additional weeds on the "County-added noxious weed" list. Many counties in Nebraska have County-added noxious weeds, which landowners are required to control.



FIELD BINDWEED

Banner
Box Butte
Cheyenne
Dawes
Deuel

Garden
Morrill
Scotts Bluff
Sheridan

5 to 6 feet long.
Perennial - spreads
by
seeds and
rhizomes.



COMMON TEASEL

2-8 ft tall
Lancaster
Pawnee
Saline
Biennial
- spreads
by seed.



CUTLEAF TEASEL

2-6 ft tall
Lancaster
Pawnee
Saline
Biennial -
spreads by
seed.



SCOTCH THISTLE

Banner
Box Butte
Cheyenne
Dawes
Morrill
Kimball
Scotts Bluff
Sheridan
Sioux

1 to 10 feet tall.
Biennial - spreads
only by seeds.



HOUNDSTONGUE 1 to 4 feet tall. Biennial -
Dawes spreads only by seeds.
Sheridan

YELLOW FLAG IRIS

Lincoln County
3-5 feet tall.
Perennial- Forms
dense stands.
Reproduces
by seed and
rhizomes.



COMMON MULLEIN

Cheyenne
County
1 to 7 feet tall
Biennial-spreads
only by seeds.



WOOLYLEAF BURSAGE

Banner
1 to 2.5 feet tall.
Perennial -
spreads by
seeds and
rhizomes.



PERENNIAL YELLOW BEDSTRAW

Cherry
2 to 4 feet tall.
Perennial -
spreads by
seeds and
rhizomes.



BULL THISTLE

Rock
1.5 to 6.5 feet tall.
Biennial - spreads
only by seeds.



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 and is detrimental to the production of crops and livestock, and to the welfare of residents of this state. Noxious weeds may also devalue and reduce tax revenue.



HEIGHT 1-3.9 FT.

Canada Thistle



HEIGHT 1.6-9.8 FT.

Musk Thistle



HEIGHT .3-2.6 FT.

Leafy Spurge



HEIGHT 1-3.9 FT.

Spotted Knapweed



HEIGHT 1-4.9 FT.

Plumeless Thistle



HEIGHT 3.3-20 FT.

Saltcedar



HEIGHT 3.2-20 FT.

Phragmites



HEIGHT 1-3.9 FT.

Diffuse Knapweed



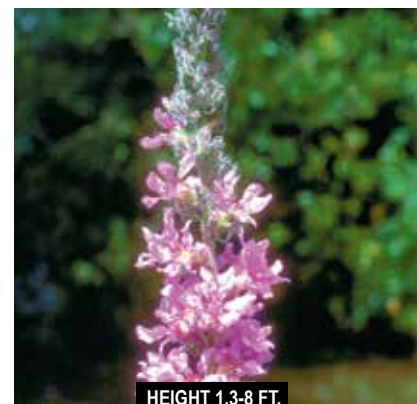
HEIGHT 3-10 FT.

Japanese Knotweed



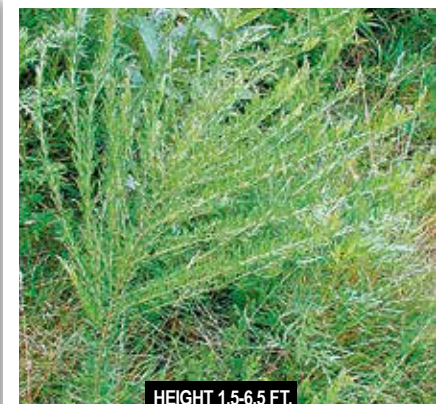
HEIGHT 8-13 FT.

Giant Knotweed



HEIGHT 1.3-8 FT.

Purple Loosestrife



HEIGHT 1.5-6.5 FT.

Sericea Lespedeza