







In addition to wind and water, invasive weeds and seeds are often spread by humans, animals vehicles, and

Weed Prevention | Identify and Restrict Pathways for Spreading

By Brent Meyer, **Lancaster County Weed Superintendent**

Prevention is the most effective method of dealing with weeds. Once a weed becomes established, eradication is far more expensive, and it is likely that greater resources will be required to reduce its impact. The first step, and the most cost-effective means of managing weeds, is preventing the entry of new weeds into an area.

Once a weed has entered an area, Early Detection -Rapid Response (EDRR) is crucial to reduce its potential environmental and economic impacts. It is much easier to treat weeds when present in small numbers than when they are well established. EDRR requires an awareness and understanding of the factors that favor the establishment and spread of weeds, and applying appropriate management practices that can prevent or reduce the risks.

The importance of weed spread prevention has grown with the recognition that the spread of most weeds occurs through similar pathways, such as the movement of goods, animals and vehicles contaminated with weed seeds.

WEED PREVENTION IN AGRICULTURE-

In agriculture, the pathways for spread include transported livestock and forage (food, especially dried hay or feed, for cattle and other livestock), contaminated crop and pasture seeds, deliberate introductions of new species, and contaminated vehicles or equipment.

There are many well-known ways to prevent weeds in agricultural activities. These methods include:

Restricting the opportunity for new weeds to invade and spread.

- Be vigilant about introducing stock, forage, or seed onto your property to ensure weeds will not be introduced.
- When buying livestock, find out where it has come from

and what weeds infest that area.

- · Buy certified weed free forage and seed where possible.
- Restrict the movement of vehicles and machinery on your property in periods when seeds are likely to spread.
- Establish tracks and roadways along which vehicle movement can be concentrated.
- Wash down vehicles that have been in infested areas.
- Do not allow machinery or vehicles to enter your property unless they are clean.

Restricting the spread of existing weed infestations.

- Carry out control practices prior to other work.
- Cut or till biennial weeds prior to seed production.
- · Work the clean area of a tilled field or hay meadow first and the infested area last. Work from the outside in and clean down equipment prior to moving into a clean area.

Quarantining

- Hold livestock that may be infested with seed in a single location until seeds have had the chance to pass through their digestive system.
- Feed out infested forage in a feedlot type situation only and introduce clean forage to stock.

Monitoring

- If animal fur has weed seeds attached, you may need to monitor your area for new or invasive plants.
- Continually monitor weed infestations and carry out control practices.

WEED PREVENTION IN YOUR BACKYARD-

Plants from commercial nurseries, landscaping suppliers and gardening clubs can also be pathways for the introduction and spread of weeds. Another significant cause of weed spread is inappropriate use and disposal of garden waste.

There are many potential weeds in our gardens.

Private gardens contain plant species with weed potential; however, the likelihood that any plant will become a weed is difficult to predict. One perfect example of an escaped landscape plant is purple loosestrife. It is beautiful in the flower garden, but if allowed to escape to a nearby water source, it spreads quickly and becomes very invasive.

WEED PREVENTION IN THE NATURAL ENVIRONMENT-

Landscapes that contain a diversity of healthy, vigorous vegetation with little bare ground, in most cases, decrease the likelihood of weed invasion. Reducing travel by ATV, UTV or other vehicles, and keeping soil disturbance to a minimum is especially important for prevention of invasive weeds.

Measures for weed prevention in the landscape include:

- Minimize the disturbance of desirable plants along trails, roads, and waterways.
- Inspect recreational vehicles including boats, which can spread aquatic weeds or other aquatic invasive species.
- · Maintain desired plant communities through good management.
- Monitor high-risk areas such as transportation corridors and bare ground.
- Work to establish desired vegetation by planting or sowing desired plants into the disturbed areas.

Learn to identify Nebraska's noxious and Watch List weeds. Pay attention to new plants, or plants out of place on your property, your roadsides, or your favorite recreation site. If you do find a noxious weed or species on the watch list, make sure you notify your local County Weed Superintendent. These folks are also actively watching for new species and appreciate the public's help in avoiding their spread.

2021 Leafy Spurge Task Force Tour and Conference

One Box Convention Center Broken Bow, NE

August 31, 2021

12:00PM (noon): Registration

1:00PM to 5:00PM: Tour

6:00PM.: Steak Dinner

& Entertainment

THANK YOU TO TROTTER'S INC.

They have 16 locations for all your fertilizer and chemical needs.

September 1, 2021

8:00AM-12:00PM Conference Speakers

Tour highlights include seeing leafy spurge, common teasel and purple loosestrife, as well as other noxious and invasive species. This is a great opportunity to see problematic weeds growing, ask questions about control, and network with other landowners and weed professionals.

Following the tour, participants will be treated to a nice steak dinner sponsored by Trotter's Inc. The Leafy Spurge Task Force (LSTF) greatly appreciates their support in helping with this event. Entertainment for the evening will be provided by Cowboy Poet R.P. Smith.

On Wednesday morning, the conference will include several presentations. One topic of interest is Canada thistle rust - a new biological control method being implemented in Nebraska. Participants will be informed about the process of establishing the spores and setting up infection sites in your county. There will be spores available for some participants to obtain at the conference.

Flood damage in 2019 and Covid 19 in 2020 caused the LSTF Tour and Conference to be cancelled. We are very excited to be able to get this event back in place! Partners working together to host this event include the LSTF, Custer County Weed Control, the Nebraska Weed Control Association and the Nebraska Department of

The \$50.00 registration fee covers the tour, steak dinner and conference. A block of rooms has been reserved at the Cobblestone Hotel and Suites for those traveling. 308-767-2060 is the number to make your own hotel reservation. To register contact Scott Erthum, LSTF Chairman at 402-760-0093 or email browncountyweeds@gmail.com.

High Plains Weed Management Area

By Clint Riesen, HPWMA Coordinator

Programs offered through the High Plains Weed Management Area (HPWMA) are funded by grants awarded by the Nebraska Environmental Trust (NET). These programs provide cost share to aid in the removal of invasive plant species along streams and rivers within the HPWMA's boundaries. Projects continue near lakes, ponds, streams, tributaries, creeks and any wetland that has a direct impact on the North Platte River. The Counties included in the focus area are Scotts Bluff, Banner, Kimball, Morrill, Cheyenne, Garden, Deuel and southern Sioux Counties. Russian olive, saltcedar and phragmites are the primary invasive species that the program works to remove from our local waterways and wetlands.

Over the past year, field coordinator Clint Riesen has met with many landowners to discuss the program, answer questions and address concerns. One concern that is often discussed is the possibility of thistle and other invasive weeds filling the gap where Russian olive trees once stood. This appears to be a problem in some areas, but with proper land management and time, the grass fills back into the areas. Landowners sometimes seed native grasses and plant non-invasive or fruit trees back in these areas. Your local Natural Resources Conservation Service has many ideas and types of flora that are good for these areas, and provide manageable cover. Landowners have commented that once the olive trees were removed, there is increased grazing area for both livestock and wildlife and both are more easily seen. The landowners also appreciate having access to the waterways for recreation and hunting.

High Plains Weed Management is a collaborative group that relies on landowners for project ideas to address invasive species from our waterways and wetlands. The HPWMA currently has several active projects and will be requesting bids for removal and spraying of re-growth.

We have recently had requests to aerial spray phragmites and saltcedar. This is a goal for the summer of 2021. To discuss control measures for Russian olive, phragmites, saltcedar, or an aerial spraying program, please contact Clint Riesen at (308)633-1264 or visit www.hpwma.org.



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 • Kevin Koziol - 308-536-2523 Phelps County • Bobby Hamilton - 308-995-8485 Polk County • Jim Carlson - 402-747-2921 Sherman County • Mitch Dzingle - 308-745-1513 Ext 111

HIGH PLAINS WEED MANAGEMENT AREA

Coordinator Jovce Mick 308-633-1264

5

Project Coordinator Clint Reisen 308-225-0146

Banner County Buck Hottell 307-214-5481

Chevenne, 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

Canada Thistle Rust

By Scott Erthum, Brown County Weed Superintendent

Canada thistle (Cirsium arvense), a non-native and very invasive perennial thistle, has been a noxious weed in Nebraska since 1873. Farms, ranches, business and residential areas, riparian areas, irrigation canals, vacant lots, road ditches, railroad rights-of-way...nearly every habitat throughout our state has seen infestations of Canada thistle over the years.

There are many types of control used to battle Canada thistle:

1. Cultural Control: Crop rotation, grazing management, good soil fertility and competitive vegetation are the basics of cultural control.

2. Mechanical Control: Tillage and mowing are two common forms of mechanical control used to manage Canada thistle. Tillage is not recommended, however, because it can actually help spread Canada thistle. Root segments as small as an inch or two will grow new plants, increasing the size of the Canada thistle infestation in your field. Mowing prior to seed production will prevent the spread of seed. However, it is not effective as a control method, because Canada thistle also increases by sprouting from an extensive root system.

3. Biological Control: Grazing with sheep or goats, or using natural enemies such as insects from the country of origin to control the spread of Canada thistle or other invasive weeds is the goal of biological control. More on this in a bit!

4. Herbicide Control: There are many different herbicides focused on the diverse habitats where Canada thistle grows. Whether it is in cropland, rangeland, riparian areas, your flowerbed, or road ditches, each product label gives instructions for proper use and locations approved. Rememberthe herbicide you use to spray Canada thistle will likely affect other nearby desirable plants. So when treating thistle, consider spot treatment to protect other species.

NOW...back to biological control! In their native countries, most weeds are not invasive because they have natural insects to keep them from spreading. However, when plants are transported to different countries (either on purpose or by accident) the corresponding insects are left behind.

Fast-forward 100 years. Over the past thirty years, scientists and researchers have traveled to the country of origin and brought some of the insects, pathogens, fungus or rust back to the United States. Major testing is done to

ensure these forms of biological control will not attack or interfere with any native or other plants; only the specific host plant they were meant to control.

A biological control for Canada thistle that has been gaining interest is a species of fungus. Since 2012, studies have been ongoing by research scientists at Fort Detrick, Maryland and Penn State University on *Puccinia punctiformis*, more commonly known as Canada thistle rust. This type of rust attacks only Canada thistle, and no other plants. Dan Bean with the Colorado Department of Agriculture has also been conducting extensive

studies on Canada thistle rust since 2013. They have found that the introduction of Canada thistle rust into a population can help reduce a stand significantly within the first two years after establishment. year four, many stands have been reduced to small percentage of their original infestation (Colorado Dept. of Agriculture website).

In February, 2020,
Kayla Malone, Chaffee and
Lake County Colorado Weed
Manager gave a presentation
about Canada thistle rust to the

Nebraska Weed Control Association (NWCA). During 2020, the NWCA worked with partners in Colorado to obtain the rust spores, and develop a pilot program with release sites across Nebraska. Despite the lockdowns and restrictions due to Covid-19, releases were made at six sites during September and October. Releases were made in cooperation with federal, state, and local agencies and private landowners. The six large sites were in Dawson, Deuel, Douglas, Harlan, Holt and Lancaster Counties. Additional small sites were started by local weed superintendents in Boyd, Brown, Cherry, Custer, Dawes, Fillmore, Garfield, Hamilton, Lincoln, Rock and Sheridan Counties.

Spore release and creating new infections on Canada thistle is a fairly easy process. The only equipment needed is a spray bottle with water, the rust spores and a stand of Canada thistle. It is recommended that releases take place in September or October, when the plants begin to

draw reserves into their root systems. Releases should also take place in

the evening, when the humidity is increasing. After misting the plant, the spores are placed on the tender leaves of small plants. The spores enter the plant and are then drawn down into the massive root system. The damage the plants occurs in the

to the plants occurs in the root system as the fungus establishes and grows inside the roots over the winter. The infected plants lack the vigor of a healthy plant, and the underside of the leaves will show the rust color associated with this fungus. These plants will struggle throughout the

season, and will likely not produce viable seed. During this time, the Canada thistle and the rust are also working together to produce the next generation of spores.

The leaves of the infected thistle can be dried, pulverized, and used to spread spores to another site in the fall. In many instances, after the life cycle is complete, the patch of Canada thistle has been destroyed.

The rust won't be successful in cropland, but it has shown great results in pastures and rangeland, riparian areas, roadsides, and other areas. Both wind and water can also help to spread the spores. The fungus has been found to stay active in the soil and plants, as well as spread to other patches of Canada thistle.

While there is not a magic bullet to control any of our noxious or invasive weeds, we look forward to working with Canada thistle rust as an optimistic option of biological control for Canada thistle. Please contact your local County Weed Superintendent if you are interested in obtaining Canada thistle rust spores.

Citations: Sciencedirect.com/Asymptomatic systemic disease of Canada thistle caused by Puccinia punctiformis

https://www.fs.fed.us/foresthealth/technology/pdfs/BCIP_2017_Bean https://ag.colorado.gov/conservation/biocontrol/canada-thistle

All biological control

work in Nebraska must

be permitted through

USDA APHIS.

TOP PHOTO: Bill Babutzke of Holt County releasing Canada Thistle rust spores BOTTOM PHOTO: Spore development on Canada thistle during summer months

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 • Jack Nordeen – 402-608-0595

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 • Cody Renkoski– 308-203-1454
Holt • Bill Babutzke - 402-340-6319

Hooker • Neal Hayward – 308-546-2706 Greeley • Walter Bjorklund – 308-428-5955 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

Nebraska Invasive Species Council 2021 Watch List Update

By Kristi Paul, PRIDE member

In 2021, the Nebraska Invasive Species Council (NISC) added thirteen weed species to the Invasive Plants Watch List. Several aquatic plants were added as well, but this article will focus on the terrestrial plants only.

NISC was formed in 2012 by the Nebraska Legislature, to serve as an advisory council for state invasive species policy and to coordinate management and research efforts across the state focused on preventing, detecting and managing invasive species. The responsibilities of NISC include:

- Recommending action to minimize the effects of harmful invasive species on Nebraska's citizens in order to promote the economic and environmental well-being of the state;
- Developing and periodically updating a statewide adaptive management plan for invasive species (Section 15 of legislation);
- Serve as a forum for discussion, identification, and understanding of invasive species issues:
- Facilitate the communication, cooperation and coordination of local, state, federal, private, and nongovernmental entities for the prevention, control and management of invasive species;
- •Assisting with public outreach and awareness of invasive species issues, and
- Providing information to the legislature for decision-making, planning, and coordination of invasive species management and prevention.

Allison Zach is the Coordinator of the Nebraska Invasive Species Council. The voting members, who are appointed by the Governor, include representatives from the Nebraska Public Power District, Nebraska Game and Parks Commission, Nebraska Forest Service of the University of Nebraska, Nebraska Department of Agriculture, University of Nebraska-Lincoln, Nebraska Cooperative Fish and Wildlife Research Unit, Nebraska Weed Control Association, Tri-Basin Natural Resources District, and members at large.

Non-voting members include the US Geological Service, National Parks Service, The

Nature Conservancy, USDA Animal and Plant Health Inspection Service, University of Nebraska Extension, US Fish and Wildlife Service, Department of Natural Resources, US Army Corps of Engineers, City of Lincoln Forester, Omaha Public Power District, USDA-Nebraska Natural Resources Conservation Service, and the Nebraska Department of Environment and Energy.

The purpose of the Watch List is to collect data on the distribution of invasive plants found in various Nebraska Counties.

- Counties were grouped by 'ecoregions' which are identified in the Nebraska Natural Legacy Plan.
- •The plants on the watch list have been listed based on their invasiveness in surrounding states and their increasing range in Nebraska.
- •Three categories have been established:
 - Category 1 plants: Species not known to exist in each ecoregion but pose a significant risk if introduced;
 - Category 2 plants: Species are top priority for eradication of new and existing populations;
 - Category 3 plants: species established and prevention of spread to new areas is a priority.

One very beneficial element of the Watch List is the opportunity to provide education and outreach. By adding a weed to the list, it allows all entities involved in invasive species work to learn about the impacts, the likely habitat, and the invasiveness of the plant (or other form of invasive species), as well as methods of control to prevent the spread. They can then inform the public, and encourage early detection, followed by rapid response in dealing with the species. The Watch List has no regulatory authority, unless a county has added the plant as a County listed noxious weed (See page 11).





Tanacetum vulgare L. Priority Ecoregions: Sandhills, Mixed grass

Species Information: 1-5 ft. Tall perennial Habitats: Roadsides, waste areas, streambanks and pastures.



Linaria dalmatica Priority Ecoregions: Shortgrass Prairie

Species Information: 2-5 ft. tall, short lived perennial Habitats: Roadsides, pastures, waste areas. General Information: One mature plant can produce

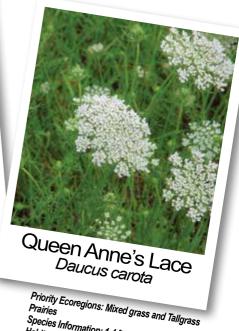


Common or European Buckthorn Rhamnus cathartica

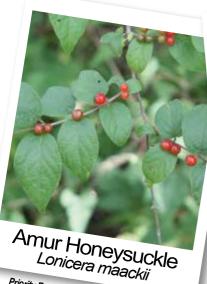
Priority Ecoregions: Priority Species in all Ecoregions of Nebraska Species Information: 20-30 ft. perennial shrub Habitat: Forest habitats, stream edges,

General Information: This species is able to outcompete native species found within these

habitats.



Species Information: 1-4 ft. tall biennial Habitats: Grows on roadsides, disturbed areas, pastures, meadows, woodlands



Priority Ecoregions: Mixed grass and Tallgrass Species Information: 15-20 ft. Tall shrub Habitats: Grows in forested areas, roadsides, and

General Information: Spreads easily by seed and can



Wild Parsnip Pastinaca sativa

Priority Ecoregions: Mixed grass and Species Information: 2-5 foot tall biennial Habitats: Grows in roadsides, pasture, Caution: Can cause phyto-photo-dermatitis woodland edges.

Winter Creeper

Euonymus fortunei Priority Ecoregions: Tallgrass Prairie

Species Information: Evergreen perennial vine that can grow up to 70 feet long Habitats: Grows on forest openings, grows on tall General Information: Displaces herbaceous plants.

Ripgut Brome Bromus diandrus

Primary Ecoregions: Future invasive species in Shortgrass Prairie Ecoregion Species Information: Annual, cool-season bunchgrass. Plants grow 6-31 inches tall. Habitats: Grows primarily in cultivated or disturbed sites. General Information: Poor forage quality, suppresses growth of native plants.

Citations: nwcb.wa.gov/weeds; invasive.org/alien/pubs; dot. state.mn.us; illinoiswildflowers.info;

Weeds of the Great Plains; missouribotanicalgarden.org; https://www.fs.fed.us/r3/resources/health/invasives/grasses/ ripgutBrome.shtml

Our Mission

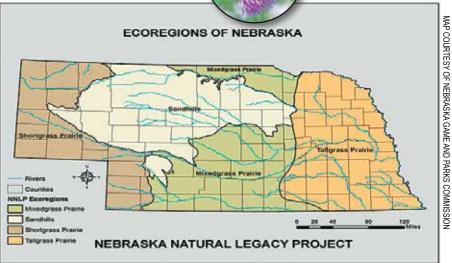
PRIDE serves as a cornerstone to build and maintain partnerships between the many cooperators in invasive weed management and education. With this collaborative effort, a more efficient and successful approach to invasive weed management and awareness is achieved. PRIDE's efforts in pooling of funds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

Invasive Plants Watch List:



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.





Oriental Bittersweet





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









CATEGORY 2: Sandhills Ecoregion



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 CINQUFOIL WILD PARSNIP YELLOW FLAG IRIS









CATEGORY 2: Tallgrass Prairie Ecoregi





Japanese Honeysuckle

ABSINTH WORMWOOD AMUR HONEYSUCKLE AUSTRALIAN BEARDGRASS **BLACK KNAPWEED** COMMON AND EUROPEAN BUCK-THORN COMMON TEASEL **CUTLEAF TEASEL** FLOWERING RUSH **GIANT REED** HOUNDSTONGUE

ORIENTAL BITTERSWEET PERENNIAL SOW THISTLE QUEEN ANNE'S LACE RUSSIAN KNAPWEED SICKLEWEED ST. JOHNSWORT WILD PARSNIP WINTER CREEPER YELLOW BLUESTEM 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

Sustaining the Family Farm

By Jim Bowen, **Southwest Weed Management Project Coordinator**

Fredrick Statz homesteaded the area near McGuire Slew, west of Champion, NE in 1888 coming in a

covered wagon and living in it for several years until he could build a sod home. He then built a wooden two story home on the farm which became the home for his family. The Statz have retained the farm in the family and is now in the care of Louis Statz. For the last few vears. Louis "Bud" Statz looked across the property he grew up on along Frenchman Creek and saw the Russian olive trees spreading across the creek bottom and into his pasture.

Bud contacted Southwest Weed Management regarding a program offering a 50% cost share to remove Russian olive and Eastern red cedar. After confirming that the property was eligible for the program he contacted Roger Lewis

from Wauneta. NE to perform the work. Using a skid steer with a tree cutter.

Lewis was able to cut the trees at the base and pile them for future burning. Immediately after cutting, a herbicide was sprayed on the stump to kill the roots. Russian olive will regrow from the stump if not chemically treated after cutting. Funding was provided through

the Upper Republican Natural Resources District and a grant from Nebraska Department of Agriculture administered by Southwest Weed Management.

Russian olive is an introduced woody species which uncontrolled can overtake native habitat in creek bottoms and rangelands,

> reducing grazing potential. It can grow up to 20 feet tall and consumes ground water with roots 9 feet deep reducing water flow and water quality to local creeks and streams. Many states have placed Russian olive on their noxious weed list due to its fast growth and rapid spread. Many landowners are unfamiliar with Russian olive and do not realize the growth rate and how it can take over an area until it is a significant problem. The cost to remove large infestations can be high.

> Southwest Weed Management helps landowners to control invasive species including Russian olive and Eastern red cedar. Lands meeting the eligibility requirements qualify for a 50% cost share to remove these species. In addition to the 50% cost share for removal of Russian olive and Eastern red cedar, Southwest Weed Management controls phragmites and saltcedar at no cost to the landowner.

> Bud sees the benefit in partnering with Southwest Weed Management in reclaiming his rangeland by removing Russian olive trees. By doing so, he is managing his farm to sustain production, remove undesirable

invasive vegetation and helping future generations of his family to carry on the traditions and heritage of the family farm that Fredrick Statz started in 1888.

For more information about Southwest Weed Management and its programs, contact Jim Bowen, Project Coordinator at 308-920-2410 or email swwmjb@outlook.com.

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and streams.

SOUTHWEST WEED MANAGEMENT

Project Coordinator Jim Bowen 308-928-2410

Louis "Bud" Stats partnered with

Southwest Weed

Management to remove Russian olive from his property. The project took place on Frenchman Creek

in Chase County.

Chase County Brandon Beard 308-882-7520

Dundy County Richard Delin 308-423-2652

Frontier County David Luke 308-367-8304

Hayes County Boyd Gigax 308-286-3461

Hitchcock County Bill Hagemann 308-334-5852

Perkins County Michael Doleza 308-352-7955

Red Willow County Josh Mullen 308-345-4333

Eric Coombs, Oregon Dept. of Ag, Bugwood, Kristi Paul

Leafy spurge, Chris Evans, Univ. III, Bugwood. High Plains WMA

PHOTO CREDITS

Kayla Malone, Chaffee County, CO Noxious Weed Manager

Flowering rush, Leslie Mehrhoff, UConn, Bugwood; Camphorweed. James Miller USDAFS; St. Johnswort, Rob Routledge, Sault College, Bugwood; Perennial Sow Thistle, Tom Heutte, USDAFS

Common Tansy, Michael Shephard, USDA FS; Dalmatian Toadflax, KGeorge Beck & James Sebastian, CSU; Common & European Buckthorn, Queen Anne's Lace, Amur Honeysuckle, Winter CreeperChris Evans, Univ. III; Wild Parsnip, Linda Haugen, USDAFS; Ripgut Brome, Barry Rice Sarracennia, Bugwood.

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

St. Johnswort, LL Berry, Bugwood.org; Absinth Wormwood & Cutleaf Teasel, Chris Evans Univ. III, 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 Kft, 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 - Jim Bowen SWWM: Russian Olive, Chris Evans Univ. III, Bugwood

Queen Anne's Lace, Rob Routledge, Sault College; Ausel Oommen, Bugwood; Wild Parsnip, Alex Katovich, Bugwood; John Cardina,

Field bindweed, Woolyleaf 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:

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

Focus on two Watch List Plants for Tallgrass and Mixed Grass Ecoregions

By Brent Meyer, Lancaster County Weed Superintendent





Queen Anne's Lace (Daucus carota L.)

IMPACT: Queen Anne's lace was added to the Nebraska Watch Weed List in 2021. Upon seeing it spread in many areas of Nebraska, the Nebraska Invasive Species Council added this plant to the Watch List, to be sure it is monitored. Queen Anne's lace has been found to cause phytophotodermatitis in both humans and horses. Phytophotodermatitis is an inflammatory skin condition caused by direct contact with sap or wet foliage, followed by exposure to sunlight.

LIFE CYCLE: Native to Europe and southwest Asia, Queen Anne's lace is a biennial plant that grows 1-4 feet tall. The central stem will produce one to several hairy hollow stems, with feathery leaves that resemble the leaves of a carrot. The slender woody taproot has a carrot-like smell. Compound, tiny individual white flowers arrange in a flat-topped umbel, 2-4 inches in diameter. Often, one center flower is dark red or purple. Queen Anne's lace flowers from May to October. The seeds, which are spread by animals and wind, will germinate throughout the summer.

WHERE FOUND IN NEBRASKA: Queen Anne's lace is found in fields, meadows, waste areas, roadsides and disturbed habitats. The hardy plant survives in a dry habitat, and invades newly restored

or disturbed areas until the native grasses and forbs are re-established.

HISTORY: Queen Anne's lace earned its common name from a legend that tells of Queen Anne of England (1665-1714) pricking her finger and a drop of blood landed on the white lace she was sewing. Early Europeans cultivated Queen Anne's lace, and the Romans ate it as a vegetable. American colonists boiled the taproots, sometimes in wine as a treat. Queen Anne's lace is high in sugar, and in root vegetables is second only to beets.

CONTROL METHODS: Since this plant spreads only by seed, it is important to prevent seed production. One plant can produce up to 40,000 seeds, with viability in the soil at least 7 years. If just a few plants are present, seed heads can be removed to prevent the spread. Tillage will control Queen Anne's lace; mowing before seed production will reduce the stand. Herbicide products used to control other biennial noxious or Watch List weeds (musk thistle, houndstongue) will be effective on Queen Anne's lace.

PREVENTION: Learn to identify Queen Anne's lace. Prevent seed production, and report known infestations to your local county weed control authority.

www.ediblewildfood.com; extension.umn.edu; canr.msu.edu;

Wild Parsnip (Pastinaca sativa L.)

IMPACT: Wild parsnip is highly invasive and if ignored can spread rapidly, developing into large monocultures that replace native animal and plant habitat. It reduces the quality of agricultural forage crops and can negatively affect livestock if ingested. The plant sap contains psoralen, which can cause serious burns and blisters to human skin after contact. Wild parsnip was added to the Nebraska Watch List in 2021 to be identified and monitored.

LIFE CYCLE: Native to Europe and Asia, wild parsnip was brought to North America by European settlers and grown as a root vegetable. Over time, it escaped from cultivation, and tends to be invasive in the United States. Wild parsnip is an aggressive, monocarpic perennial plant that germinates from seed, spends the first year or more as a rosette, and eventually bolts to a mature plant of 4-6 feet. Stems are erect, branched, hollow and slightly grooved. Leaves grow alternately along the stem, with egg shaped leaves having saw-toothed edges. Compound flower umbels are generally 2-6 inches wide and produce many small 5-petal flowers that bloom June through August. Several weeks after blooming, the plant produces seeds, and then dies.

WHERE FOUND IN NEBRASKA: Wild parsnip grows on roadsides and railroad

rights-of-way. It is also found in a variety of disturbed landscapes including trails, pastures, field and forest margins, waste areas, unmaintained gravel pits, and idle lands. It tolerates most soil types, but does not grow well in shaded areas.

CONTROL: Due to the toxicity of the sap in wild parsnip, hand pulling is NOT recommended. A few plants can be dug if the roots are severed 1-2 inches below the soil surface.

Mowing in June will reduce seed production; however, if mowing is used alone, it will need to be repeated throughout the season for several years. Equipment should be cleaned after mowing wild parsnip to prevent the spread of seeds to new locations.

Herbicide control: Products used to control biennial weeds such as musk thistle, houndstongue or poison hemlock will be effective on wild parsnip. Be sure to read and follow the herbicide label, as the label is the law.

PREVENTION: Learn to identify wild parsnip and control it immediately if you find it on your property. Prevent the plant from producing seed. Report wild parsnip growing on public lands or roadsides to your local county weed superintendent.

Extension.iastate.edu; fieldcropnews.com; Minnesota Dept of Aa:









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

TWIN VALLEY WEED MANAGEMENT AREA • TWINVALLEYWMA.COM

Coordinator Adams County
Merle Illian Eric Walston
402-746-3560 402-461-7173

Clay County Bruce Rumsey 402-762-3652 Fillmore County Todd Boller 402-366-1921 Franklin County Doug Eckhardt 308-746-4022

Furnas County Todd Weverka 308-268-2824 Gosper County Marty Craig 308-324-3771 Harlan County Tim Burgeson 308-928-9800 Kearney County
Joseph Anderson
308-832-2854

Nuckolls County Nick Elledge 402-879-1900 Thayer County Brian Schardt 402-365-4366 Webster County Brian Pedersen 308-470-1603



Absinth wormwood Acre **Biennial** Buckthorn Camphorweed Canada thistle Common tansy Dalmation toadflax Diffuse knapweed Field bindweed Flowering rush Hay Herbicide High plains Houndstongue Identify Label Landowner Leafy spurge **MNWAG** Musk thistle

Native

Natural

Noxious Perennial sow thistle Phragmites **Plants** Platte vallev Prevention **PRIDE** Purple loosestrife Queen annes lace Riparian Roots Rust Saltcedar Sandhills seeds Southwest Spotted knapweed St. Johnswort Twin Valley Water Wild parsnip

Winter creeper

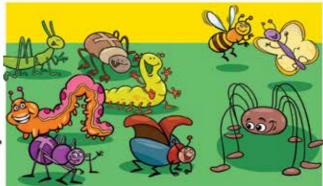
HIDDEN WORD FIND - Responsible landowners take pride in their management efforts to control weeds on private lands in order to protect our environment. Sometimes the greatest challenge is to understand how invaders spread, the groups involved in treating them, and tools they use. Find the words listed 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.

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

Find Differences







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.



Garden Morrill **Scotts Bluff** Sheridan

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



TEASEL 2-8 ft tall Lancaster Pawnee Saline Biennial - spreads





Dawes Sheridan

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



SCOTCH THISTLE

Banner **Box Butte** Chevenne Dawes Morrill Kimball Scotts Bluff Sheridan Sioux

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



COMMON **MULLEIN** Cheyenne County

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



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





BULL THISTLE Rock

1.5 to 6.5 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.

NEBRASKA'S NOXIOUS WEEDS

It is the duty of each person who owns or controls 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.



Canada Thistle



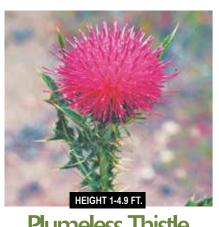
Musk Thistle



Leafy Spurge



Spotted Knapweed



Plumeless Thistle



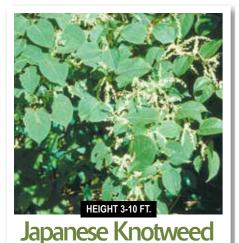
Saltcedar

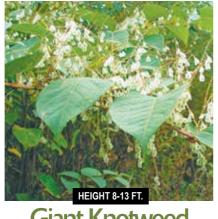


Phragmites

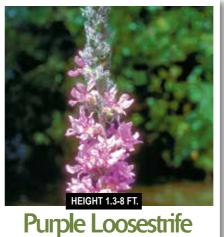


Diffuse Knapweed





Giant Knotweed





Sericea Lespedeza