



The WEED WATCH

A publication of the Panhandle Research Integration for Discovery Education
in conjunction with the High Plains, Sandhills, West Central, and Platte Valley Weed Management Associations

Fall 2011 Newsletter

Welcome ...

... to another edition of *The Weed Watch*! We are pleased to add the Platte Valley Weed Management Area and the West Central Weed Management Area to the ongoing efforts of the Sandhills Weed Management Area, High Plains Weed Management Area, and PRIDE.

When PRIDE started producing *The Weed Watch* back in 2003, we talked about the publication growing over time. Sure enough, it has met our expectations

and then some. With this edition going to 90,000 homes in almost 40 Nebraska counties, our continuing mission of providing noxious and invasive weed education to as many folks as possible is a great accomplishment for PRIDE.

Combining the efforts from five Weed Management Area groups shows that as “weeds know no boundaries”, educational efforts can also cross many boundaries.

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.

Fall Weed Control = Successful Weed Control

Robert Wilson Weed Specialist, University of Nebraska

Land managers are faced with many weed problems throughout the year. However, past experience suggests that the fall is actually an excellent time to treat biennial and perennial weeds. Perennial, biennial, and annual weeds come to the forefront in July as they become more obvious and send up flowering stalks and flowers that make the weed noticeable from a greater distance. After flowering, the top-growth of many weeds stops, and the ability to kill the weed with a herbicide declines. Nebraska's noxious weeds, which by state law must be controlled, are of major concern for fall control.

In the northern parts of the United States where soil freezes during fall and winter, plants have developed the ability to over-winter without being killed. The roots of perennial and biennial plants do not actually freeze. Instead, the carbohydrates in the roots act as antifreeze to prevent the root cells from freezing solid and rupturing. Plants, in effect, go dormant during the winter and resume growth the next spring.

In order for this process to be effective, plants store carbohydrates in their root

systems in the fall so they can have energy to initiate growth in the spring. In the spring, the concentrations of root carbohydrates decline as growth begins and sugars move from the roots to the leaves. After the initial growth and flowering, this process reverses, and sugars produced through photosynthesis are transported from the leaves to the roots. In early fall, the concentration of carbohydrates in the roots are at the greatest level. When the first frost occurs, the plant sends a signal to the roots that winter is approaching, and it is time to prepare for freezing temperatures. If temperatures remain mild, the plant continues to be active but in a state that allows it to go dormant when the soil begins to freeze.

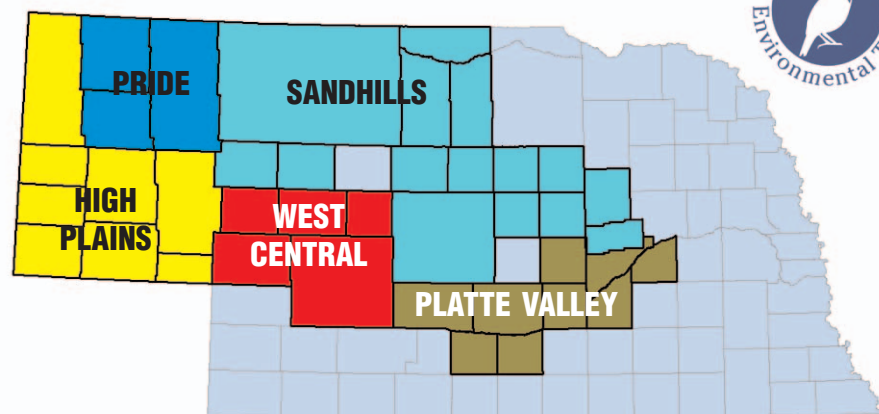
So what does all the carbohydrate knowledge have to do with weed control? **By applying a herbicide in the fall, there is more movement of the herbicide into the root system.** Since sugars are moving to the roots, the flow of materials can carry the herbicide along with the sugars. Once in the roots, the herbicide can further disrupt the plant's ability to metabolize carbohydrates. Therefore, the same investment in a herbicide applied in late September will provide more control than

when the herbicide is applied in late June. With certain herbicides and with certain types of plants, the differences in control can be very dramatic.

The question then arises: when is the best time to treat the perennial or biennial weed? Researchers say fall is an excellent time to treat thistles, bindweed, and leafy spurge. Studies show that treatments can take place any time after the first frost (28° F) until the soil begins to freeze. For Scottsbluff, the average date of the first

freeze, when the air temperature reaches 32° F, is September 28 and reaches 28° F on October 7. In dry years when fall precipitation is lacking, weeds can also go dormant from drought stress. Therefore, when there are extremely dry conditions, consult your county weed control superintendent for optional control methods. It is important to remember that if you miss treating certain weeds in the spring, the fall of the year provides an excellent chance for weed management.

The Weed Watch partnership expansion



Invasive Species Control in the Central Platte River

Platte Valley and West Central Weed Management Areas

Rich Walters, Project Coordinator
PVWMA and WCWMA

The Platte Valley Weed Management Area (PVWMA) and West Central Weed Management Area (WCWMA), collectively referred to as WMAs, consist of 15 counties in south-central Nebraska. Their goal is to reduce invasive plant species within the Platte River corridor. Objectives include the following:

- (1) Increase flow of water
- (2) Increase wildlife habitat
- (3) Reduce water usage by invasive plant species
- (4) Ensure long-term sustainable control by landowners

In 2008, the WMAs collaborated for grant funding to control invasive plant species within the Platte River channels.



Initial phragmites infestation

This joint effort allowed the WMAs to approach the project from a larger landscape perspective. The WMA's project boundary is Kingsley Dam on the North Platte River and the Keith/Deuel county line on the South Platte, through the convergence at the town of North Platte, and continuing downstream to Columbus. Approximately 336 river miles of the Platte River flow through the WMAs.



Aerial herbicide application on phragmites

The primary focus for this project is controlling invasive phragmites. Phragmites has taken over low-lying areas along the Platte River including riverbanks, wetlands, meadows, side channels, sloughs, and sandbars. Infestations have constricted channels, which increases flooding potential and reduces wildlife habitat. Prior estimates have shown that



After herbicide application

over 14,000 acres along the 336 miles are infested with phragmites. Other invasive plants such as salt cedar, Russian olive trees, and purple loosestrife also grow in this stretch of the river.

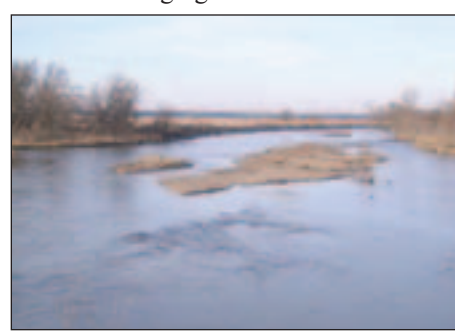
Controlling Phragmites

In general, aerial and ground application techniques are used to apply herbicide

along rivers. Disking and shredding are used for biomass removal. So far in this project, most applications have been performed by helicopter. Biomass removal has been done by disking and shredding. High river flows in 2010 prevented mechanical biomass removal, but the heavy flows snapped two-year-old dead phragmites stems and removed the majority of standing dead biomass.

Project Results

Major control efforts started in both WMAs in 2008-2009 and are continuing. In total, approximately 18,641 acres of phragmites have been treated with herbicide and 1,800 acres of dead biomass have been mechanically removed. A total of \$2,573,122.21 has been spent on this project. Partnering agencies and contributions



Current view of channel

from multiple sources have covered 100% of implementation costs. Partners include Nebraska Environmental Trust, Nebraska Department of Agriculture, Platte River Recovery and Implementation Program, Central Platte and Tri-Basin Natural Resource Districts, Ducks Unlimited, and United States Fish and Wildlife Service.

Initial evaluation of the WMA's phrag-

mites control is very positive. Herbicide application has proven effective with minimal reinfestations occurring. Water flow and wildlife habitat have both increased within the central Platte River as a result of this project.

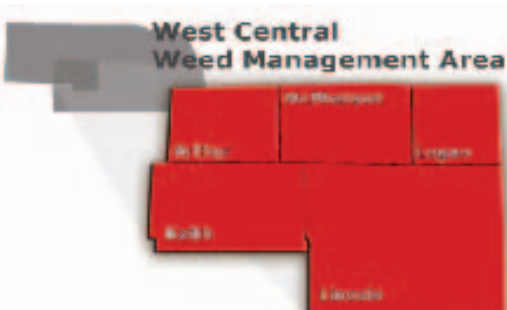
Future Goals

The WMAs have accomplished initial control and are now focusing on monitoring and sustaining control within river channels. Yearly monitoring flights will supply needed information on any remaining infestations and help detect reinfestations at an early stage. Any detected infestations within channels of the Platte River will be treated. Infestations outside of river channels will be detected by aerial flights and county-wide color infrared imagery analysis.



The overall goal is a braided river channel with moving sandbar, free of invasive vegetation.

A cost-share policy is in place for landowners with infestations outside of channel banks and can be found at www.plattevalleywma.org. County weed superintendents are available to help landowners with this cost-share policy and to ensure control measures are undertaken.



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308-380-2099

Merrick County
Corwin Roscoe
308 946-5375

Phelps County
Charles Brooks
308 995-6688

Polk County
James Carlson
308 345-4333

East Meets West – Nebraska’s Weed Differences

Kristi Paul, Sheridan County Weed Superintendent

“One Nebraska” is a great slogan to represent the unity of Nebraska citizens. However, our plant community is not as united! As western Nebraska weed warriors welcome additional weed management areas and counties to *The Weed Watch*, we need to consider the diversity of the state-wide invasive weed challenges.

Most or all of our invasive weeds arrived here either on purpose (as ornamentals) or accidentally (in the ballast of ships or in cargo) from Europe or Asia. No natural ene-



This leafy spurge plant is opportunistic.

mies were brought along to control these plants, so the plants take advantage of the opportunity to establish in a new area and expand their territory. Their ability to spread depends on several factors, such as the following: Does the plant grow well in that soil type? Does the ground cover, or lack of favorable competitive vegetation, promote its spread? Are the weather conditions (rainfall and humidity, which differ greatly from Eastern to Western Nebraska) favorable for rapid reproduction?

In favorable conditions, an invasive plant can spread like wildfire. Early detection and rapid response (EDRR) for an unfamiliar invading plant in the neighborhood or on your property can put water on this fire. This can prevent a long-term, high-cost noxious or invasive plant nightmare.

Western Nebraska’s biggest noxious weed challenge is Canada thistle. Many other noxious weeds, such as musk

thistle and leafy spurge, infest large acres in certain counties. Newer, invasive challenges are the biennial plants Scotch thistle and houndstongue, which are now “county-added noxious weeds” in several of the Panhandle counties. These now require control efforts the same as all state-listed noxious weeds. A single Scotch thistle plant can have thousands of seeds, and houndstongue seeds stick like Velcro to tires, clothing, and animals, aiding in



Scotch thistle is spreading like wildfire in several Panhandle counties.

the spread. Small infestations of the perennial plant Dalmatian toadflax have been found in several western counties. However, due to proactive measures taken by weed professionals and land managers, the invasion is limited.

Historically, musk thistle and leafy spurge have been the predominant noxious weeds for central Nebraska. However, the explosion of three riparian invaders has broadened the priorities for Nebraska weed control professionals. In the last few years, purple loosestrife, saltcedar, and phragmites have rapidly established in riparian areas in the central and eastern parts of the state. These plants clog waterways, prevent the natural flow of water, and increase flooding risk and damage. These three species also present unique control challenges due to the sensitive riparian habitat, difficult accessibility, and distinct control methods.

“County-added noxious weeds” for two counties in central Nebraska include bull thistle (a biennial) and yellow bedstraw (a perennial). Both plants grow in grassland or

waste areas, with yellow bedstraw preferring wet meadows. An invasive plant that appears to be increasing in central Nebraska is sulphur cinquefoil, which prefers wet meadows and grasslands. A newcomer, sickleweed, has been found growing along rights-of-way.

Rainfall amounts, humidity levels, and ice storms are not the only naturally occurring differences between eastern and western Nebraska. The eastern part of the state is home to all 10 of the state’s noxious weeds. The most troublesome is musk thistle. Japanese or giant knotweed is the state’s newest noxious weed, which has been reported in five counties. It is hoped that quick response by weed professionals will eradicate this weed before it becomes a widespread problem. *Sericea lespedeza* is a perennial forb that several of the southeast counties have added to their county noxious weed list. Garlic mustard, a biennial that can spread rapidly in wooded areas, is also being monitored and controlled.

While invasive plant challenges may differ from east to west across the state, the goal should be the same for our “One Nebraska” weed control: early detection and rapid response to new infestations. We all should take the time to identify unfamiliar plants on our properties and in our neighborhoods. Local county weed superintendents are available to assist with plant identification and control recommendations. As part of a unified statewide weed team, each citizen can limit the encroachment of invasive plant species and keep our Nebraska naturally beautiful.



A new invader, sickleweed, is traveling to Nebraska roadsides.

Answers to thistle quiz

On Page 9

- | | | | |
|----|--------------|----|--------------|
| A. | <u> 3 </u> | B. | <u> 4 </u> |
| C. | <u> 1 </u> | D. | <u> 2 </u> |

Russian Olive Tree Removal Continues in the High Plains WMA

**Jered Eskam, Project Coordinator,
High Plains Weed Management Area**

The work of invasive species removal and control is still occurring within the eight counties in the High Plains Weed Management Association. A cool, wet spring delayed the onset of our program to spray the regrowth on Russian olive trees. But as the temperature increased in June, so did the spraying activity. Two of our contractors have stayed busy most of

the spring and summer spraying regrowth on 14 properties, and four more landowners are on schedule for chemical application in September. The regrowth spraying will come to an end with the first frost of the season. However, throughout the winter months, the contractors will be clearing more invasive species within the High Plains Weed Management Area.

The program for the first application of herbicide on Russian olive trees started on

June 16 at the end of the timeframe required by the federal Migratory Bird Act. High Plains WMA has had a cost-share program with landowners thanks to a grant from the Nebraska Environmental Trust to remove Russian olive trees on 42 acres this summer. For this fall, High Plains WMA has also scheduled the removal of Russian olive trees on 351 acres.

On many of these projects, the removal program has provided a more usable pas-

ture for our area livestock producers by removing tree canopy. This encourages the growth of grass. In addition, removing the thick tree stands often reduces the hiding spots for the herd and improves accessibility for weed control.

If you are interested in finding out more details about our cost-share program, stop by the office at 1517 Broadway, Suite 101, Scottsbluff, or call (308) 633-1264. You can also find us on our web page at www.hpwwma.org.

Your Trash is NOT My Treasure

Lora O'Rourke, Pine Ridge Ranger District, US Forest Service

Have you seen the bumper stickers on the green dumpsters around town with the message, "Take PRIDE in your compost. No weeds or seeds in this dumpster"? If so, then you know that as you prepare your lawn, garden, or back lot for winter, you need to be aware of noxious or invasive weed seed that you may be gathering during your clean-up. If you do find weeds with seeds still attached, place those in the brown dumpsters, not the green dumpsters.

The green dumpster material is transferred to large compost piles at the SWANN facility and is available for the public to use. If weed seed is present in this compost, the folks using it could be unaware that they are transferring weed seed to their gardens and yards. In addition, keep an eye out for other vegetative parts of noxious and invasive plants, since

many plants not only spread by seed but also by plant parts such as rhizomes, root fragments, and vegetative tubers. Put these plant parts in the brown dumpsters along with the any weed seed.

This project was part of PRIDE's 2010 grant project funded through the Nebraska Department of Agriculture and the Nebraska Environmental Trust.



The Chadron Girl Scout Brownie Troop 49 volunteered to apply some of the stickers as part of their community service project last fall. Stickers will be placed on green dumpsters in many other areas of Box Butte, Dawes, and Sheridan Counties.



Take **PRIDE** in your compost

NO WEEDS OR SEEDS in this dumpster



PRIDE Is Proud of Its Accomplishments

Kristi Paul, Sheridan County Weed Superintendent

As you read on the first page, we are proud to welcome Platte Valley Weed Management Area and the West Central Weed Management Area to *The Weed Watch* family. With this issue, we are reaching 90,000 homes. Aside from producing *The Weed Watch*, however, PRIDE has had a busy this summer. We received a 2011 grant from the Nebraska Department of Agriculture / Nebraska

Environmental Trust to control primarily Scotch thistle and houndstongue on riparian areas in Box Butte, Dawes, and Sheridan Counties. Over the course of the summer, this project has been implemented, and more control will be done in September.

PRIDE also received a small grant from the Nebraska Academy of Sciences for Public Information and Education.

We will be doing test plots on houndstongue and Scotch thistle with this grant and providing the results to the public as part of the project. Part of this grant will help to fund a small portion of *The Weed Watch*.

PRIDE members had a great time hosting "the Weed Watchers" booth at the Upper Niobrara White Natural Resources District Conservation Festival in April. Over 180

area students learned about noxious weeds, how they spread, how to control them, and what we can do to prevent them. The students also got to learn about grazing noxious weeds with goats, and had a chance to meet Gretel, the weed-munching goat.

With pride, we continue to strive to accomplish our common goal of noxious and invasive weed control.



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Scotts Bluff County
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Sioux County
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308-668-9453

Waste Pesticide Disposal

Ann Cotton, UNW Natural Resource District and PRIDE board member

It is the end of summer – time to finish spraying weeds, apply weed and feed to your lawn, set bait to prevent insects or rodents from invading your space, clean out and reorganize the garage and sheds before winter sets in, and haul trash ... sound familiar?

Now, what should you do with leftover pesticides and empty pesticide containers? Bury them? Burn them? Dump the pesticides down the drain? NO! None of the above. All three options will seriously affect the environment, will violate the law, and could potentially affect your health and welfare. Remember, you used the pesticides to protect yourself and property from weeds and other pests. You should complete the cycle of protection by properly storing leftover pesticides or disposing of them according to label instructions. Although the print on the label is small, be sure to read it and follow it. It is the law.

Storage and Disposal

Storage: Store in a cool, dry, well-ventilated area, but not below 32°F.

Pesticide Disposal: Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional office for guidance.

Container Disposal: Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, by incineration or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Follow the label. It is the law.

Dangers and Costs

Pesticides disposed of in the sewer or septic system or dumped on the ground will ultimately contaminate ground and/or surface water. This could harm or kill surrounding desirable aquatic plants, amphibians (frogs), fish, other wildlife, livestock, and possibly humans. Consider your children, who could be wading in the creek to catch frogs and water skeeters, or your neighbors, who could be fishing local reservoirs. Do those reservoirs also provide drinking water to the local communities? Do you or your neighbors use a domestic or community well that draws water from an aquifer that would be contaminated by pesticides dumped on the ground? If your town has a sewer system and water treatment plant, consider the cost to the community to safeguard your health when pesticides enter either system. It takes time and money (your tax dollars) to decontaminate water and sewage systems and to provide a temporary source of potable water to the community. If your well is contaminated, the cost of decontamination falls solely on you. Consider also the cost of diagnosis and health care for those who do become ill.

According to Earth911.com, poison control centers report approximately 110,000 pesticide poisonings in the U.S. each year. About 23,000 of the people poisoned visit the emergency room. The American Association of Poison Control Center's 2009 Annual Report of the National Poison Data System (NPDS) reports that pesticides were involved in 9.68% of deaths reported for children under six years old. Pesticides were involved in 5.38% of adult exposures to substances reported to the NPDS due to toxic effects. Unfortunately, many more cases of illness due to pesticides may be undiagnosed.

What Should You Do?

When you cannot properly store pesticides, contact the manufacturer. Some manufacturers have programs to take back unused pesticides and/or empty containers. Then, plan

future purchases for only what you will need each season. Perhaps coordinate your purchases with another responsible user so that neither of you will have leftovers. Then follow the manufacturer's label instructions for proper disposal of the containers. Some pesticides require triple rinsing of the container before disposal. Remember, the law requires you to follow the process outlined on the label. You may be able to take the container to a local Household Hazardous Waste event. From there, containers will be properly treated and recycled, if possible. Contact your local waste disposal facility for event dates and their current rules and regulations regarding disposal of waste pesticide and containers. For example, Solid Waste Agency of Northwest Nebraska (SWANN) does not have regularly scheduled events, but it does accept waste pesticide containers during regular business hours. Household-sized containers must be triple rinsed, with a hole punched in them; barrels must be opened and rinsed of all residue.

Be a Good Neighbor

Remember, pesticides are designed to protect you and your property from weeds and other pests when used properly. Be a good neighbor – complete the cycle of protection by properly storing, handling, and disposing pesticides and their containers to ensure everyone's health, safety, and welfare.

For more information about proper handling, storage, and disposal of waste pesticides and their containers, visit the following websites:

Nebraska Department of Agriculture – waste pesticide disposal programs, general information.

www.agr.ne.gov/pesticide/collection.html

www.agr.ne.gov/pesticide/waste.html

<http://pested.unl.edu/recycling> University of Nebraska-Lincoln Pesticide Safety Education Program – how to triple rinse or otherwise treat empty pesticide containers, collection sites, terms and conditions.

www.acrecycle.org Agriculture Container Recycling Council – sponsored programs to collect almost 8 million pounds of high-density polyethylene for recycling into park benches, picnic tables, other items.

<http://earth911.com> Earth911 – general information about waste pesticide disposal, recycling, other subjects, calendar of local events.



Imagine all these products dumped in your nearby landfill.

Weeds to Watch for on Your Property in Nebraska



Amur Honeysuckle



Autumn Olive



Caucasian Bluestem



Crown Vetch



Dalmatian Toadflax



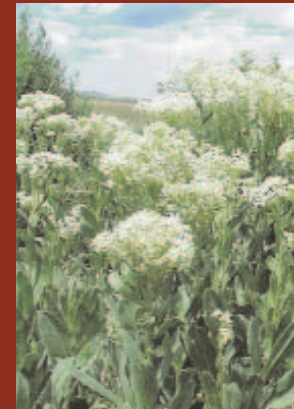
Damesrocket



European Buckthorn



Garlic Mustard



Hoary Cress



Hoary Allysum

Hairy Whitetop



Houndstongue



Multiflora Rose



Perennial Pepperweed



Russian Olive



Serecia lespedeza



St. Johnswort



Sulphur Cinquefoil

Nebraska's Watch List Weeds

The watch list includes weeds that are invasive or noxious in surrounding states. The goal of the watch list is to make landowners aware of possible invading weeds and encourage them to control the weeds when first found. The old adage “an ounce of prevention is worth a pound of cure” definitely applies to these plants. Control of these weeds is not required but recommended.

If you have any concerns or know of any infestations of watch list weeds, please contact your local weed control superintendent.

The Nebraska Noxious Weed Advisory Committee and the Nebraska Invasive Species Council are currently working to categorize priority plant lists for new invasive plants.

Patience and Persistence Add Up to Success in Purple Loosestrife Biocontrol

**Rod Stolcpart, Rock County
Weed Superintendent**

Using biological control on invasive weeds will not lead to an overnight success. If you think of biological control as a marathon and not a sprint, you may be pleasantly surprised. It takes patience to just wait and see. If you know of a release site that did not yield immediate results a few years ago, you may want to go back and check. The following story illustrates why.

Approximately 10 years ago, the South Dakota / Nebraska Purple Loosestrife Awareness Group released a small number of beetles, *Galerucella californiensis*, on a portion of the Niobrara River. Over the years, there was a turnover of employees, and the site was almost forgotten until 2010 in the late summer. Rod Stolcpart (Rock County Weed Superintendent) and

Travis Mundorf (Keya Paha County Weed Superintendent) visited the site again and were amazed at the activity of the beetles. The 5-acre patch of purple loosestrife had beetle activity on nearly 95 percent of the plants.

The weed superintendents determined that in the spring of 2011 a special collection of the beetles needed to be done. In early June 2011, area weed superintendents from the Middle Niobrara Weed Awareness Group (MNWAG) found egg masses on nearly every single stem. As

few as 15 and as many as 50 eggs were found on every plant. By breaking the stems and bagging the plants, the group took the beetles to new release sites. When the eggs turn into larvae and later into adult insects, they will already be at their new home. Several thousand beetles were released that day. The hope is that the MNWAG will be able to collect even more in future years. My advice to you is to return to some of your older release sites. You just might be surprised at how patience pays off for you as well.



Weed-Free Forage Update

**Jan Bruhn, Box Butte County
Weed Superintendent**

With the growing season winding down, why should you be concerned about the weed-free forage (WFF) certification program in Nebraska? The answer lies in taking a look at how invasive and noxious weeds are spread and why landowners take part in the WFF program.

Noxious and invasive weeds spread by seeds and other propagating parts. Seeds and plant parts are often spread because they are present in the hay, forage, or mulch that is moved between locations. Landowners know that noxious and invasive weeds have many effects. They reduce crop yields, devalue the land, and reduce the attractiveness of property. In addition, it can be costly to correct the damaging

effects of invasive and noxious weeds.

National parks, national forests, state departments of transportation, other federal and state agencies, and private individuals have joined the WFF program to limit the spread of invasive and noxious weeds. They require using both certified weed-free mulch for restoration projects and certified hay or forage for livestock and wildlife on land they control.

County weed superintendents in Nebraska have reported 189 inspections (a record number) for certification of weed-free forage for the 2011 growing season. Most of the inspections were for straw-producing fields. The fires in Arizona and New Mexico have created a demand for certified product to be used on restoration projects there.

The Nebraska Weed Control Association (NWCA) has taken a leading role in educating

and implementing standards. These standards were established by the North American Weed Management Association's Weed-Free Forage Certification Program Committee. County weed superintendents across Nebraska have received special training to identify Nebraska's noxious and invasive weeds. They also can identify invasive plants from neighboring states that pose a potential problem here. **In Nebraska, county weed control superintendents are the only professionals recognized as having the training and credentials to certify a field as "weed-free."** The NWCA hosts the website www.newweedfree.org. At that website, producers in Nebraska can have their name and address listed as a producer of certified weed-free forage (forage/mulch) for sale.

To get involved in the Weed Free Forage Certification Program, contact your county weed superintendent.

Nebraska's Newest Noxious Weed - Japanese and Giant Knotweed

**J.D. Tetschner, Garfield County
Weed Superintendent**

Early Detection Rapid Response (EDRR) is the key to controlling or eradicating new invading species of noxious plants such as Japanese knotweed, giant knotweed, and all Japanese and giant

knotweed cultivars. In Garfield County, we are "blessed" with two of the three. At all known sites, an eradication project has begun. On five sites, all plants were cut to the ground, and the one-foot-tall regrowth was sprayed with a high rate of glyphosate plus surfactant. At one site, the infestation was trimmed and then mowed with a lawn

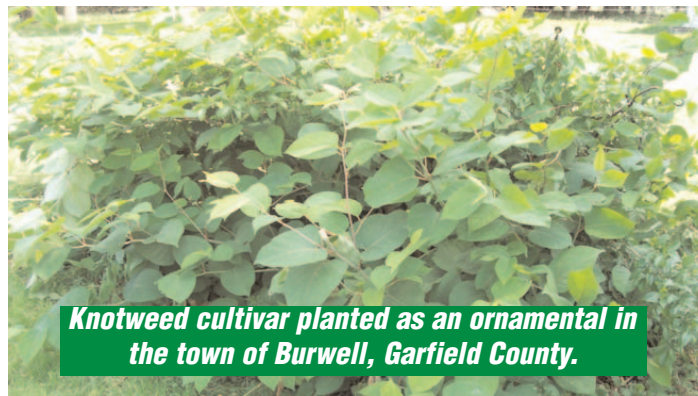
mower that left the stems about two inches high. These stems were sprayed immediately after mowing with a high rate of glyphosate plus surfactant. One month later, no regrowth was found.

For assistance in identification or control recommendations, contact your local county weed superintendent.



SANDHILLS WMA

Blaine/Thomas Carol Conard (308) 346-4047	Greeley Walter Bjorklund (308) 428-5955
Boone Russell Stokes (402) - 386-5284	Keya Paha Travis Mundorf (402) 497-3800
Brown Doug Mulligan (402) 387-2287	Loup Lynn Strong (308) 942-6218
Cherry Barbara Small (402) 322-1067	Nance Kevin Koziol (308) 536-2523
Custer Shawn Owens (402) 872-2410	Rock Rod Stolcpart (402) 822-0186
Garfield Jay D Tetschner (402) 346-5696	Valley Darrell Kaminski (308) 536-2523
Grant/Hooker Neal Hayward (308) 546-2706	Wheeler Doug Reiter (308) 654-3397



Knotweed cultivar planted as an ornamental in the town of Burwell, Garfield County.



Japanese knotweed found 300 yards from Cedar River in Garfield County.

Purple Loosestrife Does Not Belong in Nebraska

**Barbara Good-Small, Cherry County
Weed Superintendent**

You may have been noticing an attractive, 3-to-5 foot tall plant growing in roadside ditches or ponds, along streams, or anywhere with plenty of moisture. It flowers in late June and July with attractive purple blossoms. This showy plant is called purple loosestrife. It first arrived on U.S. shores in soil used as European ship ballast in the early 1800s. It has since found its way to Nebraska and become one of our state's ten noxious weeds. Other than its designation as a noxious weed, why should you care about purple loosestrife, and is there anything that can be done about it? If you are thinking you do not need to know and it does not affect you personally, you might want to reconsider.

Purple loosestrife is a non-native, perennial plant species. Because it has beautiful blossoms, it was sold for many years in this country as a home landscape plant. However, it escaped the gardens and containers and has invaded our wetlands and waterways, literally choking out native plants. In 2001, it became illegal to sell it as an ornamental plant in Nebraska. Purple loosestrife spreads by seeds, sprouts from cut stems, and grows from fragmented roots. In one season, one plant produces as many as two million seeds, which can remain viable for many years.

While a few of these plants may look lovely in the garden, there is nothing



MNWAG members taking a break from weed whacking at a *Galerucella californiensis* insectary. (L to R): Mick Goodrich, Doug Mulligan, Rod Stolcpart, Travis Mundorf, and Barbara Good-Small.

attractive about purple loosestrife growing where it does not belong. Infestations create a negative effect on the economic well-being of our local community because of the following:

(1) It reduces the quality of wetland pastures and hay meadows.

(2) It decreases water flow in irrigation canals and ditches.

(3) Money is spent to combat it, and these funds could be better spent

elsewhere.

(4) It degrades hunting and fishing areas. As this noxious weed displaces native plants, natural habitat for animal communities is severely reduced. Songbirds do not feed on the seeds, muskrats cannot use the roots for food or shelter, and waterfowl lose nesting sites from dense stands of loosestrife.

Long-term control of purple loosestrife is best achieved through an integrated

management approach, in other words, using a combination of methods. Because of its aquatic nature, chemical treatment may sometimes be inadvisable, although some aquatic-label chemicals effectively control it. One effective tool is European insects, a method called biocontrol. Biocontrol agents have reduced purple loosestrife infestations in some areas of the U.S. by 90% over a period of 10 years.

One of the biocontrol agents that the Middle Niobrara Weed Awareness Group (MNWAG) is using in Cherry, Rock, Keya Paha, and Brown Counties is the black-margined loosestrife beetle (*Galerucella californiensis*). MNWAG maintains insectaries adjacent to the Niobrara River, where the beetles can be



Purple loosestrife infestation that had a chance to spread.

collected by sweeping or by cutting stems laden with larvae. The adults of this species over-winter and lay eggs in the soil beneath the vegetation. First-generation adults emerge and disperse to new locations during July and August. Both adults and larvae feed on purple loosestrife buds, young shoots, and leaves. The resulting defoliation causes the plants to turn brown, produce fewer shoots and seeds, and eventually die.

If you notice purple loosestrife, or if you need assistance identifying this plant, please contact your local county weed superintendent. You can also quickly and easily find photos and information about this noxious weed on the internet.

Early detection and rapid response (EDRR) is a far more economical and effective approach to controlling this noxious weed than waiting until it has had a chance to spread. Pretty as it is, purple loosestrife has no place in Nebraska.

This'll test your brain!

Can you match the rosette with the bloom it will produce? Answers on Page 3



KIDS OF ALL AGES PAGE

S E E D S P U P E A M W M A G B H C P
 A D E U E R U T L U C I R G A I O O L
 N I I M H E G G L A R K K A G O U O A
 D T L P P S W C T B N R O H Y C N L T
 H H S S E A H T E K I T P L H O D E T
 I I E T T Q A C O S Y A R P S N S D E
 L N L E S C K O T N I T I B A T T E V
 L S R R K Y L I Z N K H U E B R O L A
 S P Y E C N A N S J P G A G N O N T L
 W E S T C E N T R A L U C R A L G S L
 Q C R I S F D C X N O O E U I J U I E
 U T D I S P O S A L R R R P R E E H Y
 E O R E S N W L N R A D T S A F T T J
 D R O E T E N O N P E E I Y P F S H S
 C T P R I D E C N E R E F F I D O C I
 I E O F F R R U W E T W Y A R D P T L
 T L Y D E A O D O P R O J E C T M O L
 S R D E N T N A H C A E T L D L O C Y
 E O U E E I P H R A G M I T E S C S H
 P D J W B E L T S I H T A D A N A C P

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 identify noxious weeds before they spread and apply the best tools for each situation. Find the weeds hidden in the environment to the left, and use the proper tools and resources to prevent the spread of weeds to adjacent private and public lands.

Word List for Word Find

agriculture	certify	dumpster
leafy spurge	PRIDE	spray
attack	compost	houndstongue
mulch	project	teach
benefits	control	inspector
pesticide	riparian	water
bindweed	difference	knotweed
phragmites	Sandhills	landowner
biocontrol	disposal	weedfree
plant	Scotch thistle	West Central
Canada thistle	drought	WMA
Platte Valley	seeds	yard

Words are arranged horizontally, vertically, diagonally, forwards (left to right), backwards (right to left), top to bottom, or bottom to top.

Can you find the differences?



ANSWERS to differences:

1. Trees are different
2. Dog is different
3. Boy's cap is different
4. Owl is missing
5. Girl's jacket is different
6. Girl's rake is shorter

County-Added Noxious Weeds

In addition to the ten 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 the following county-added noxious weeds which landowners are required to control:



FIELD BINDWEED

Banner	Garden
Box Butte	Morrill
Cheyenne	ScottsBluff
Dawes	Sheridan
Deuel	



HOUNDSTONGUE

Dawes
Sheridan



SCOTCH THISTLE

Banner
Dawes
Morrill
Sheridan
Sioux



**GOOD
NEIGHBORS
CONTROL
NOXIOUS
WEEDS**



WOOLLYLEAF BURSAGE

Banner

BULL THISTLE

Rock



PERENNIAL YELLOW BEDSTRAW

Cherry





Nebraska's Noxious Weeds



Canada Thistle



Diffuse and Spotted Knapweeds



Musk Thistle



Leafy Spurge



Phragmites



Plumeless Thistle



Purple Loosestrife



Saltcedar

Newly Added



Japanese and Giant Knotweed

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