The WEED WATCH

A Publication of the High Plains Weed Management Association in conjunction with Panhandle Research Integration for Discovery Education

Fall 2010 Newsletter

Working Together Works

Jered Eskam – HPWMA Field Project Coordinator
Joyce Mick – HPWMA Program Support Manager
Kristi Paul – Sheridan County Weed Control Superintendent

High Plains Weed Management Association (HPWMA) recently completed its third year of operation. Our group is pleased to team up with the Panhandle Research Integration for Discovery Education (PRIDE) Weed Management Association to publish this edition of the Weed Watch.

HPWMA is currently staffed by Ron Moore, RC&D Coordinator, Joyce Mick, Program Support Manager, and Jered Eskam, Field Project Coordinator. Our office is at 1517 Broadway, Suite 101 in Scottsbluff. We are pleased to welcome our new field project coordinator, Jered Eskam. He is a lifelong resident of the Scottsbluff valley area and joined the staff this June. In addition to his work with HPWMA, Jered is working on his biology degree at Western Nebraska Community College. He and his wife have two children. When time permits, Jered enjoys sports, auto racing, family activities, coaching youth sports, and traveling.

Since our formation, we have accomplished much in the seven counties of the HPWMA (the southern Panhandle of Nebraska). Many factors contribute to the success or failure of a Weed Management Area, and we have used the lessons to find a successful combination.

Our main focus is the North Platte River and its tributaries. Over the past three years, 3,800 acres of Russian olive, saltcedar, and phragmites have been controlled along the North Platte River. We are very thankful that the projects so far have been funded by grants from the Nebraska Environmental Trust.

Rust Enterprises spraying re-growth on Russian olive trees.

A major project is the control of Russian olive trees. Landowners in the project enter into a 10-year contract and pay for part of the project cost. The bulk of the expense occurs in the first three years during the removal and follow-up control efforts (spraying any re-growth). Control for the remaining years is the landowner's responsibility. Spot checking will be made on all properties to ensure that re-growth has been sprayed. One restriction is that no tree removal can be done from April 1 through July 15 in compliance with the Bird Nesting Act. The research conducted as part of the project has helped us determine the most effective herbicides to control Russian olive trees.

We have eight approved contractors who meet our requirements for removing and treating the trees. The contractors (located from Scottsbluff to Osceola) are willing to travel wherever necessary. One unique factor about our project is that the landowners are allowed to choose among the eight contractors after receiving bids.

Weather permitting, many Russian olive tree removal projects will be continuing during September 2010 through April 2011. We encourage landowners to fill out the cost-share application here in the office, online at www.hpwma.org, or call 308-632-1311 to begin the acceptance process.

Weeds know no boundaries. Therefore, landowners and county, state, and federal partners working together to complete these projects is a win-win situation. Working together works!

The Nebraska Environmental Trust

Blackshirt Express LLC clearing Russian olive trees on Schmid and Williams properties. Cutting the Russian olive tree and treating the stump immediately with herbicide provides excellent control.

County Weed Superintendent Contact Info

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Hemingford

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Chadron

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County Weed Superintendent Contact Info

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Controlling Noxious Weeds Is Up To Everyone

How Organic Farmers Can Comply With State Noxious Weed Law

Liz Sarno, Extension Educator, Organic Project Coordinator

All landowners are responsible for controlling noxious weeds whether they live in town or on a farm. What are their options when they cannot or are not willing to use herbicides to control noxious weeds? I am not referring to the farmer who has a weedy field with lots of foxtail and button weeds. Although they can hurt a farmer's yield and profit, those weeds are not noxious. What I am referring to are Canada thistle, spotted and diffuse knapweed, leafy spurge, musk thistle, phragmites, plumeless thistle, purple loosestrife, and saltcedar. These noxious weeds are invasive and aggressively spread.

What course of action can you take if you are a certified organic market gardener or farmer and are selling your products organically? For example, assume you have a field of wheat infested with Canada thistle. How are you going to comply with the Noxious Weed Control Act to control the Canada thistle? You must comply because it is state law, but you also must comply with organic regulations as well.

To sell your crops as certified organic, you are inspected yearly. The inspector reviews your farm records and fields to verify that you have adhered to the USDA National Organic Program (NOP) Standards. NOP land requirement states that harvested crops being sold as organic must have had no prohibited substances for a period of 3 years immediately preceding harvest of the crop. Failure to comply will cause you to lose your certification and have the expense of transitioning again. State laws must be adhered to, and being organic is not an excuse for noncompliance. Luckily there are many steps organic farmers can take to avoid using prohibited substances.

The first step is to communicate with your county weed control superintendent. Let that weed expert know you are aware that you have noxious weeds and you are willing to cooperate to develop a plan for control. County weed superintendents who notify residents about noxious weeds on their farm ground or roadsides are merely doing their job, which is to enforce the Noxious Weed Act. You and your county weed control supervisor might be able to develop a reasonable plan to control your noxious weeds. Keep in mind your plan may need to include several methods of control: using biological control with insects, increasing crop rotations, adding cover and green manure crops, grazing livestock, controlling with mechanical means, possibly hiring weed walkers to dig up weeds, and selecting clean, weed-free seed for planting. If your county weed supervisor is not able to help you develop a plan, use other weed experts. You can contact the University of Nebraska or the State of Nebraska Department of Agriculture for people to help you develop a plan.

Dryland organic farm in Butler County, Nebraska - Strip farming: corn, soybeans, spring wheat and green manure crop, such as buckwheat.

Organic farming in general requires more labor and fewer inputs. Unfortunately, noxious weeds will show up just when many other farming operations need to be done. To do a good job at organic farming, intensive management is necessary to control weeds at each step of your farming operation. Good cultural practices such as field bed preparation, cultivation, and timely action are extremely important for weed control.

Understanding how the noxious weed reproduces will help you decide the best method of control. For example, Canada thistle is a perennial that reproduces from roots and seeds. So when cultivating, take care not to cut through the roots and spread them throughout the field. If Canada thistle is a problem in your row crops, one strategy for control may be to plant the field into alfalfa for three years.

Once you have identified the best way to handle the noxious weed you can develop a plan to control it. You may have to increase the number of crops in your rotation or you can try mechanical control by mowing, chopping out by hand, or various types of tillage. At UNL we have started to experiment with flaming Canada thistles and plan to evaluate flaming on leafy spurge. Flaming is a process in which a propane flamer is used to quickly burn noxious weeds. More information on flaming can be found on the UNL website listed below.

Using livestock can be tricky. Overgrazing a pasture can actually make it easier for certain weed seeds to get established. However, developing an intensive system of grazing such as "mob grazing" can improve and restore balance to pastures and help encourage the native grasses to compete with noxious weeds. You may not own livestock, but this is a great way to collaborate with a farmer looking for pasture. Find someone who is willing to graze cattle to manage weeds or hire a professional grazer. In some cases, goats have proven to do an excellent job in controlling certain weeds, especially on rough terrain where mechanical control would not be possible.

Biological control (using specific insects to control a weed) takes patience. It may be years before you see any results. Again it is important to understand the life cycle of the weed you are trying to control so that you are not implementing contradictory practices. Identifying natural enemies to stress weeds will encourage native plants to compete. If you plan to use insects you need to work with an entomologist to calculate numbers to be released and appropriate locations. Nebraska keeps a biological control data base that includes all insects released. So please inform your local weed control superintendent if you are implementing biological control on your property.

UNL has four research farms with certified organic ground. On these farms, researchers are looking at cover crops, organic winter wheat varieties, flaming, and crimping. On January 8, 2011, the UNL Extension will sponsor a workshop with Randy Anderson, USDA-ARS weed ecologist from Brookings, South Dakota. Randy will discuss a weed management approach that is based on disrupting weed population dynamics with cultural tactics. In conventional agriculture, this approach has reduced herbicide use 50% while still managing weeds effectively. A prototype organic rotation will be presented. For more details contact Liz Sarno, Cell 402-309-0944 or http://cropwatch.unl.edu/web/organic/events.

Take time to develop a plan for noxious weed control and communicate with your county weed control superintendent about how you intend to implement it. For additional resources, see UNL CropWatch: Organics: http://cropwatch.unl.edu/web/organic/home and ATTRA Organic IPM Field Guide: http://attra.ncat.org/attra-pub/summaries/summary.php?pub=148

For help in developing an organic weed management strategy, contact Liz Sarno, Extension Educator and Organic Project Coordinator, Office: 402-584-3837, Cell: 402-309-0944 or Email: esarno2@unl.edu

Good Soil Health Means Fewer Weeds

Ron Moore – Panhandle RC&D Coordinator

Weeds are indicators of an imbalance of soil nutrition and microbiology. Soil testing is more than testing for minerals. Biological life in the soil needs to be identified to determine the bacteria-to-fungus ratio as well as the types of protozoa and nematodes in the soil.

Maintaining soil quality/soil health has two functions. First, it is the capacity of a specific kind of soil to function within natural or managed ecosystem boundaries. This in turn sustains healthy plant and animal productivity. Second, it is the ability to maintain or enhance water and air quality. With poor soil quality we get weeds.

Specific weeds are indicators of the following soil conditions:

• Crabgrass – The soil is high in magnesium, low in phosphorus, humus, and bacteria, and very low in calcium.

• Dandelions – The soil is very high in potassium, high in chlorine, low in humus along with poor decay action, and very low in calcium.

• Downy brome (cheat grass) – The soil is high in potassium, chlorine and selenium, low in humus and bacteria, and very low in available calcium and phosphorus.

Applying the results of soil testing can successfully improve your lawn.

• Bindweed – The soil is very high in potassium and magnesium, low in humus along with poor decay action, and very low in calcium and phosphorus.

It is important to get your soil tested. Testing the soil at least 6 inches deep will help determine available nutrients as well as the bacteria-to-fungi ratio. To have fewer broadleaf problems, look for a 7:1 ratio of calcium to magnesium for lawns. To optimize good soil health, use a good water application rate to maintain optimum water-holding capacity of the soil. Over-watering can create anaerobic conditions with a hard pan or heavy clay layer. Under-watering can prevent microbial activity and stress the lawn.

For the pastfour years, Ron Miller has been working with the Panhandle RC&D as an organic technician. He is assisting landowners with their conversion to organic farming. The RC&D board thought that looking at biological treatment of lawns might more quickly display the benefits of good biological treatment of soils. When biological treated lawns were compared to lawns managed conventionally, the treated lawns:

• Showed 8% more available moisture

• Had 24% more bacteria

• Reduced root fungal switcher nematodes that carry diseases by 134%

• Had low ciliate, which indicates less water pooling in the top 4 inches

• Improved total nematodes numbers by 10%

• Improved the ratio of total fungi to total bacteria

• Cut the amount of sodium by 63% (reducing disbursement of soil structure)

• Increased the relative amounts of zinc and iron

For more information, contact Ron Moore, Panhandle RC&D Coordinator at (308) 632-1311 or Ron Miller at Whole Farm Environmental Living at (308) 632-6979.

Russian Olive Tree Control – Research Results

Robert Wilson, Weed Specialist, and Gustavo Sbatella, Post-Doctoral Research Associate

On August 26, 2010, the University of Nebraska Panhandle Research Station hosted a tour to showcase research that has been done on Russian olive trees on the North Platte River. Approximately 25 people attended the tour and were able the see the results of much research that has been done by Dr. Robert Wilson and Gustavo Sbatella.

Russian olive trees can be found throughout Nebraska. But they are primarily a concern in riparian areas along creek or river drainages. Within the last two years, it is not uncommon to drive along the Platte River and see piles of dead Russian olive trees that have been removed by cutting or pulling and stacked to burn.

Many techniques have been used to control Russian olive trees with varying levels of success. A common cause of failure is the capacity of Russian olive roots to resprout. Older, established trees may have stem diameters ranging from 10 to 20 inches, resprouts from broken roots may range in diameter from 0.5 to 2 inches, and new seedlings may only have a 0.12-inch diameter stem. When Russian olive trunks are bulldozed or pulled, part of the plant's roots remain underground. Then numerous new plants can re-infest the cleared area.

Dr. Robert Wilson has produced invaluable results in noxious weed research for western Nebraska.

The control method used for Russian olives should be dictated by the size of the tree. Research was initiated near Melbeta, Nebraska, in 2006 to examine cutting large Russian olive trees at the soil surface as a removal method. Trees with an average stem diameter of 10 inches were either cut in late October or early May. Cutting alone in October or May resulted in 40% control two years after treatment. Cutting the tree and treating the stump with a mixture of herbicide and bark oil (Remedy® Ultra 33% and oil 67%, Habitat® 10% and oil 90%, Roundup® Ultra 50% and oil 50%, or Weedmaster® 50% and oil 50%) resulted in 100% control. The combination of mechanical and chemical control proved to be most effective.

A second method of herbicide application involves mixing herbicide with bark oil and applying the mixture around the base of the tree in a band about 1 foot wide. This basal bark application technique was evaluated in a study in which resprouting Russian olive trees were treated in the early spring. The trees were approximately 4 to 6 feet tall and 0.5 to a few inches in diameter. Two years after treatment, a mixture of Remedy Ultra 33% and oil 67% or Habitat 10% and oil 90% provided 90% control and 2,4-D ester 50% and oil 50% provided 80% control of resprouting Russian olive trees.

Continued on Page 11

These Russian olive trees were part of the UNL tour.

Weed Control 101

Part 2: It's Spraying Time!
By Chris Kelly, Chem-Trol VMS

That's right, it's autumn, and it's time to spray those weeds. Research shows that fall is the best time to spray. Plants are pulling nutrients into their roots for winter storage and survival. Herbicide applied at this time is also pulled into the roots resulting in more successful weed control.

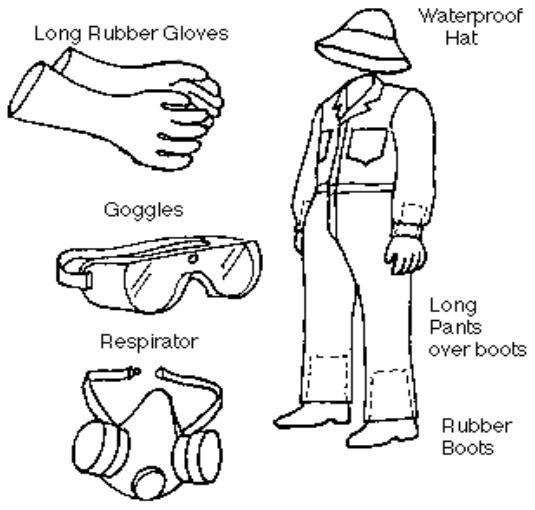
Remember in the first part of this series, we discussed the preparationwork needed to spray. This includes identifying the target weed, choosing the correct herbicide, surveying the surroundings, reading the labels and MSDS, and calibrating your sprayer.

Now it's time to check the weather. Watching the weather patterns for the day of your application is key to preventing drift. If the wind is over 10 mph, spraying is not only a bad idea, but it also might be contrary tothe herbicide label. Since the label is the law, you may be responsible for damage done to non-target vegetation. That is why it's a good idea to have some sort of record of the weather that day. You can contact your county extension educator or the Nebraska Department of Agriculture for a complete list of required records to keep. Examples are wind direction, wind speed, date and time of spraying, and temperature.

Make sure you are not spraying on a really hot day. As temperatures rise, plants shut down to conserve water. This will reduce the effectiveness of the herbicide application. Also, make sure that rain is not expected. A sudden storm may wash off the herbicide, cause harm to non-target vegetation, and prevent good control on the target plants.

Another important item to remember is to wear personal protective equipment (PPE) required bythe label. Most basic labels require common-sense equipment such as long-sleeved shirt, pants, unlined rubber gloves, and closed-toed shoes. Other items to consider are mask, goggle, and respiration apparatus. Many information guides

Be sure to follow the label requirements for Personal Protective Equipment (PPE)



are available from your county extension educator and the county weed control superintendent. It is very important to know the specific requirements for that herbicide and follow them.

The label will also provide necessary requirements for entry and re-entry. Restrictions or warning signs may be required to protect against inadvertent exposure.

Afterwards, wash any clothing used while spraying in a separate laundry load to ensure that your clothes are freefrom any pesticides. Remember that clothing and footwear worn while walking through the wet herbicide can affect non-target vegetation long after you leave the sprayed area. Most county extension educators have information guides. It is recommended that anyone spraying herbicides read them.

Happy spraying, and remember good neighbors control their weeds.

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.

For more information or to get additional copies of the Weed Watch, contact
Kristi Paul, Sheridan County Weed Superintendent
PO Box 449, Rushville, NE 69360
Phone 308-327-5629

The PRIDE Weed Management area group will be applying stickers to "grass and leaves only" dumpsters to remind the public not to dispose of weeds or seeds. Contents of these dumpsters go directly to compost. So please help us prevent the spread of noxious and invasive weeds. This project is part of a grant funded by the Nebraska Dept of Agriculture/Nebraska Environmental Trust.

Take PRIDE in your compost

NO WEEDS OR SEEDS in this dumpster

The Peril of Phragmites

Kristi Paul – Sheridan County Weed Control Superintendent

Nebraska's newest noxious weed, phragmites, is on the move to the Panhandle. It would love to invade your property and put down some roots! This 6 to 20 foot, perennial grass, which originated in Europe, spreads mainly by rhizomes and stolons.

Where does this plant grow?

In Nebraska, phragmites is known to be growing on the Niobrara, Platte, and Republican Rivers. It the Panhandle, it infests the Niobrara River in Cherry County, the North Platte River in Scotts Bluff, Morrill and Garden Counties, as well as scattered spots throughout the remaining Panhandle counties. Although most commonly found along rivers and streams, phragmites is on the increase in wetlands, meadows, and waste drainages.

Why is this plant a concern?

The non-native species of phragmites has no natural enemies. It can quickly form a monoculture along lakes and waterways. The aggressive rhizomes send "runners" through shallow water and river edges, quickly starting new plants. Interested folks near Lexington used flags to measure the growth of these "runners" and found that the growth was as much as 17 inches per day! Native riparian plants such as cattails, grasses, and forbs are quickly displaced by phragmites. Once established the plants become so thick cattle will not graze the area. Another concern is that native and non-native phragmites are cross-pollinating, creating hybrid plants that will likely be invasive in the future.

How do I control phragmites?

Prevention is the best method to keep phragmites from invading Nebraska wetlands and wildlands.

• Young phragmites plants are readily eaten by cattle and horses, but the plant becomes tough and unpalatable with maturity.

• Herbicide recommendations can be found in the University of Nebraska EC-130 Guide for Weed Management in Nebraska, found at your Extension Educator's office. Your local county weed superintendent can also give you recommendations from this guide.

• Biological control of phragmites using insects is in the beginning research stages.

• Mechanical control methods such as plowing and burning have produced some control. Frequent plowing or heavy disking may help to control phragmites, but accessibility to the area with equipment may be difficult. Deep disking has been used successfully on the sandbars of the Platte River in central Nebraska.

On the Platte River near Lexington, monitoring shows that phragmites runners grow up to 17 inches per day.

Non-native phragmites. Above: Appearance in winter. Below left: Seedhead. Below right: Mature infestation.

There are native and non-native varieties of phragmites in Nebraska. Below are some of the differences between the two:

Native phragmites:

• It does not spread and is not aggressive.

• Stem density is low. Stems are flexible and easily bend or sway in the wind. Stems are often crooked.

• Leaf color is yellow green.

• Stem texture is smooth and shiny.

• Rhizomes are round.

Non-native phragmites:

• It is very aggressive and displaces native plant species, which make up the desired habitat.

• Stem density is high and stems are perfectly straight, remaining sturdy and erect.

• Leaf color is dark green/gray.

• Stem texture is rough and dull.

• Rhizomes when freshly excavated are white and compressed or flattened.

The Panhandle of Nebraska is fortunate that infestations of phragmites are not excessive in most of our counties. Let's all work together to be proactive and keep it that way. If you need help with identification or control recommendations, or if you want to report local phragmites infestations in your area, please contact your local county weed control superintendent.

Answers to "Which Weed Is It?" on Page 9.
1. Canada thistle 2. Houndstongue
3. Musk thistle 4. Spotted knapweed

Weeds to Watch for on Your Property in Nebraska

Amur Honeysuckle

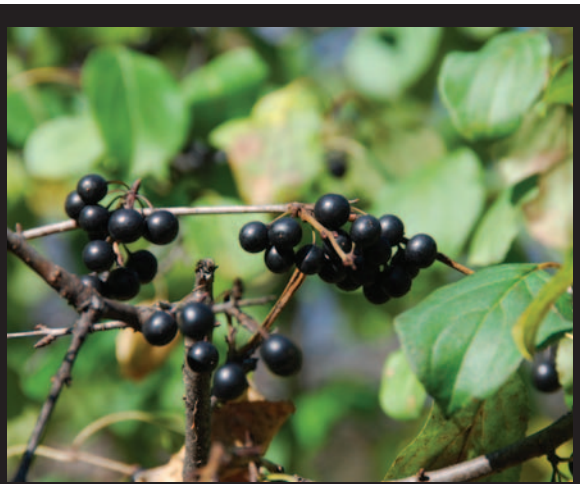
Autumn Olive

Caucasian Bluestem

Crown Vetch

Dalmation Toadflax

Damesrocket



European Buckthorn

Garlic Mustard

Hoary Cress

Hoary Allysum

Hairy Whitetop

Houndstongue

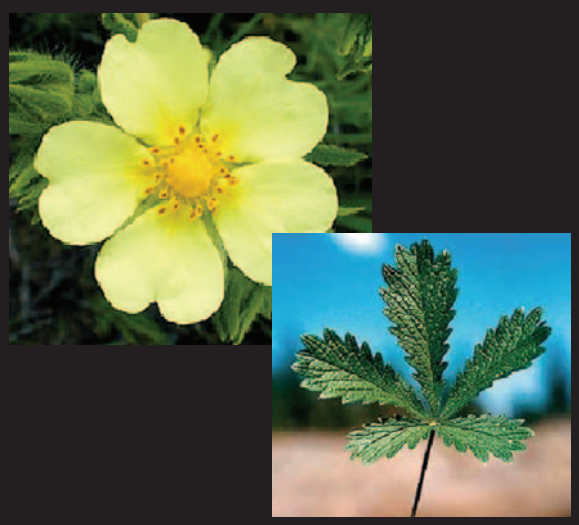
Multiflora Rose

Perennial Pepperweed

Russian Olive

Serecia lespedeza

St. Johnswort



Sulphur Cinquefoil

Nebraska's Watch List Weeds

The watch list is a list of 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.

Weed Control Superintendent Highlights

Starting in this issue of Weed Watch and continuing in future issues, we are highlighting some of the county weed control superintendents that belong to the PRIDE Weed Management Association or the High Plains Weed Management Association. This month, we are featuring superintendents from Garden, Scotts Bluff, and Box Butte Counties.

Weed Control Superintendent Terry Raymer, Garden County

Terry has been employed by Garden County for 27 years, five of them as weed control superintendent.

What are the county-added noxious weeds for your county?
Bindweed

What is the most troublesome noxious or invasive weed in your county?
Canada thistle

Can you share a weed-related success story?
Bindweed mites are working on two sites where they were released.

What useful partnerships, if any, have you formed with other organizations to help fight weeds?
Game and Parks on Clear Creek Refuge, Panhandle Weed Control Association, High Plains Weed Management Area, and Crescent Lake Refuge.

Pertaining to weed control, what is the biggest challenge you have found in doing your job?
Getting landowners to understand that the timing of weed control is very important in controlling the infestations on their property.

What is something unique about weed control in your county?
The challenges of getting the weeds controlled on thirty plus miles of the North Platte River.

In your spare time, what hobbies, interests or civic duties do you enjoy?
Hunting and fishing and working on my home and yard.

Weed Control Superintendent Jeff Schledewitz, Scotts Bluff County

Jeff has been employed by Scotts Bluff County for nine years, all of them as weed control superintendent.

What are the county-added noxious weeds for your county?
Field bindweed

What is the most troublesome noxious or invasive weed(s) in your county?
Canada thistle and Russian olive trees

Can you share a weed-related success story?
Working in conjunction with Nebraska Game and Parks in controlling Canada and musk thistle on the Kiowa area south of Morrill, Nebraska. We worked for years in the attempt to control these two Nebraska noxious weeds to no avail. Several years ago, Dow AgroSciences introduced a thistle-specific product called Milestone®. This has been a Godsend. The Kiowa area is not the same property since the introduction of Milestone.

What useful partnerships, if any, have you formed with other organizations to help fight weeds?
In 2007, Scotts Bluff County was instrumental in the formation of the High Plains Weed Management Association. Since the inception of High Plains WMA, we have been able to control several thousand acres of Russian olive and salt cedar along the North and South Platte Rivers along with their tributaries in Western Nebraska. The Nebraska Environmental Trust has been a main monetary contributor to these projects.

Pertaining to weed control, what is the biggest challenge you have found in doing your job? Educating private landowners in the importance in controlling noxious weeds. Organic producers can be a special challenge.

What is something unique about weed control in your county?
In Scotts Bluff County, we have the North Platte River and numerous creeks and streams along with all the water runoff through flood irrigation. With all this water moving, it makes a perfect way to transport noxious weed seed throughout the entire county.

In your spare time, what hobbies, interests, or civic duties do you enjoy?
My wife Patti and I have a small farm North of Scottsbluff. In the past several years we have seeded the entire farm into irrigated pasture where we are now running Angus cattle. We have two sons, Scott and Grant, along with two grandchildren, Kalie and Luke. Patti and I have a Harley Davidson motorcycle. This summer we have taken several day trips in South Dakota, Colorado and Nebraska.

I am proud to be the president of High Plains Weed Management Association.

Weed Control Superintendent Jan Bruhn, Box Butte County

Jan has been employed by Box Butte County for 21 years, 17 of them as weed control superintendent.

What are the county-added noxious weeds for your county?
Field bindweed

What is the most troublesome noxious or invasive weed in your county?
It's a toss-up between field bindweed and Canada thistle as to which has been most troublesome. Field bindweed seems to go unnoticed more often than thistle but both are becoming more manageable with integrated pest management techniques. In 2009-10 Scotch thistle (shown below) has posed an increasing threat to our county and may take first place as most troublesome.

Can you share a weed-related success story?
Seventeen years ago, musk thistle infested 480+ acres in our county. Following many years of persistently gathering seed heads and digging plants, we find an occasional musk thistle plant somewhere in the county. It has taken years to get to the point of having very few musk thistle plants, but I feel persistence and follow-up checks have played key roles in reducing the infestation levels.

What useful partnerships, if any, have you formed with other organizations to help fight weeds?
We have a good working relationship with other county departments, county employees, Farm Service Agency, feed and fertilizer companies, and private landowners. For instance, if an employee for the county road department or landowner finds a plant that they can't identify, they don't hesitate to call or stop in to bring it to my attention. Other than that, Panhandle Research Integration for Discovery Education (PRIDE) and Panhandle Weed

Continued on Page 9

Weed Control Superintendent
Jan Bruhn, Box Butte County

Continued from Page 8

Control Association (PWCA) are two groups of weed warriors that share the common goal of noxious and invasive weed control.

Pertaining to weed control, what is the biggest challenge you have found in doing your job?

Educating the public about the importance about noxious and invasive weed control, helping others identify invading noxious weeds, and encouraging everyone to get involved (because invasive weeds affect everyone) have been ongoing challenges.

What is something unique about weed control in your county?

Box Butte County is unique because we have no federally owned land, national parks, or forest land. A large percentage of noxious and invasive weed project grants is funded by governmental entities such as the US Forest Service and Nebraska Game and Parks. Without state or federal properties, our ability to receive grant funding is limited. Another unique trait about Box Butte County is that we sit on our own aquifer.

In your spare time, what hobbies, interests, or civic duties do you enjoy?

Spare time? What's that? Seriously, I enjoy Bible studies and anything involving horses, cows, and other animals plus fishing, camping, sports activities, and just hanging out with my grandkids. I also have enjoyed being a part of the Ponderosa Search & Rescue group, Hemingford Citizens Emergency Response Team (CERT) and the PRIDE Weed Management Association in the northern Panhandle.

Which Weed Is It?

Below are the "rosettes" of four different weeds...can you identify them?

1._____

2._____

3._____

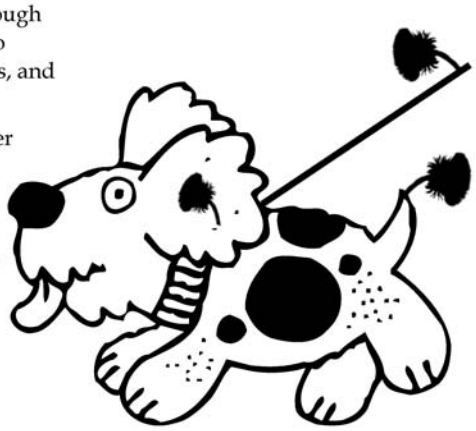
4._____

Answers on Page 5

Dilemma

You and your dog have just returned from a walk through some fields behind your house. As you are about to go inside, you notice seeds stuck to your shoe laces, socks, and the dog's fur. What should you do?

- Go inside. If anyone comments on the seeds all over your shoes and your dog, pretend you did not notice the seeds. Ask an adult to pick off the seeds for you.
- Pick the seeds off of yourself and your dog. Throw the seeds into the yard before going inside.
- Pick the seeds off of yourself and your dog. Put the seeds in a plastic bag for now. Ask an adult to burn them.
- Other



musk thistle

Good Neighbors Control Noxious Weeds!

Kids of all ages Page

Based on the clues in the jumble, what is the featured weed above?

_____

Can you guess our featured weed? Unscramble each of the six words below. Each word describes our featured weed. Then unscramble the circled letters to fill in the missing word in the statement below the puzzle. Answers at the bottom right of this page.

WRLOFE

NERAINLEP

PRUESG

ZIMOHER

CTXOI

DESES

Our featured weed is one of Nebraska's __ __ __ __ __ __ __ weeds.

Can you find the differences? There are 14!

ANSWERS to differences:

1. Flag is missing
2. Picnic table is missing
3. Biker's hair is different
4. Girl's pants are different
5. Old man's glasses are missing
6. Bird house is missing
7. Walking stick is different
8. Man's shirt is different
9. Dog is different
10. Basket is missing
11. Bird is missing
12. Tree branch is missing
13. New leaves on grass
14. Some leaves on road are missing

ANSWERS to word jumble

FLOWER
PERENNIAL
SPURGE
RHIZOME
TOXIC
SEEDS
Solution: noxious
Featured weed: leafy spurge

County-Added Noxious Weeds

FIELD BINDWEED

Banner
Box Butte
Cheyenne
Dawes
Deuel
Garden
Morrill
ScottsBluff
Sheridan

HOUNDSTONGUE

Dawes
Sheridan

SCOTCH THISTLE

Banner
Dawes
Morrill
Sheridan
Sioux

GOOD NEIGHBORS CONTROL NOXIOUS WEEDS!

WOOLYLEAF BURSAGE - Banner

Russian olive tree control

Continued from Page 3

A third approach for controlling Russian olive trees is to treat the foliage with a mixture of water and herbicide. The effectiveness of this technique depends upon spray coverage. Tall trees are more difficult to treat than smaller trees. In the late 1980s, aerial application of 2,4-D plus Banvel resulted in only fair Russian olive tree control with the side of the tree facing away from the airplane showing only moderate injury.

A series of experiments were started in the late summer of 2008 to evaluate broadcast foliar sprays for control of the 4 to 6 foot resprouting Russian olive trees. An elevated spray-boom was mounted on an all-terrain vehicle, which applied a mixture of water and herbicide. One year after treatment, Habitat at 1 quart per acre, Remedy Ultra plus Milestone® at 3 quarts plus 7 ounces per acre, and Remedy Ultra at 4 quarts per acre controlled 95%, 95%, and 50%, respectively, of the resprouting Russian olive trees. Native perennial grasses and some Canada thistle were growing beneath trees. Grasses were severely injured by Habitat while Remedy Ultra plus Milestone caused slight grass injury but killed Canada thistle.

There are several options for controlling Russian olive trees. Choose the method that best fits the size and density of trees. After treatment, check and treat the area for Russian olive resprouts or seedlings and for other invasive species like thistles and houndstongue, which may result from the ground disturbance. Consult the UNL EC-130, Guide for Weed Management in Nebraska for recommendations on control of noxious and invasive weeds.

Research Associate Gustavo Sbatella assists in test plot application.

Nebraska's Noxious Weeds

Canada Thistle

Diffuse Knapweed

Musk Thistle

Leafy Spurge

Phragmites

Plumeless Thistle

Purple Loosestrife

Saltcedar

Spotted Knapweed

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