

### Changes to the Weed Free Forage Species List

#### Special points of interest:

- Your fields can still be certified as weed free even if you have weeds. They just cannot be flowering or have seed.
- Producing, buying and using Certified Weed Free Forage is a great way to prevent the spread of weeds through the movement of bales.
- A monument was placed in Oregon in 1946 honoring a particularly effective biological control agent.

#### Inside this issue:

It's a Weed? List it!	1
Integrated Weed Management: Part 8 - Biological Control	2
Control Corner: Drift Reduction	2
Invasive Species Spotlight: Old World Bluestems	3

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The Certified Weed Free Forage program in Kansas is part of a national program run by the North American Invasive Species Management Association (NAISMA). Their program standards list the weed species that cannot be present in an inspected field in a reproductive stage. If they are, all or a portion of the field will not be certified. This list includes Kansas' noxious weeds as well as 44 other invasive species that could be spread through the movement of forage.

This last fall, members of NAISMA's Weed Free Forage Committee got together to consider updating this list of unacceptable weeds. The result of this discussion was to remove 9 species including hemp and

toothed spurge and to add 9 other species including common mullein and cut-leaf and common teasels. The current list is shown below. You will see that many of the species listed are unfamiliar in Kansas. They apply more to other states and states that import hay.

The decision to make these changes are the result of weed officials being concerned either with having the weeds introduced into their states or being responsible for sending these weeds into other states.

For the most part, these changes will not affect most Kansas residents. The change that will cause the most concern is common mullein. It was listed because it is a very bad

invasive in other western states and noxious in two. It is found sporadically throughout Kansas and is rarely found in high enough densities to be difficult to control. Controls include pulling and tillage as well as the application of amino-pyralid and picloram.

As a reminder of how to get your hay or straw certified under this program, simply go to the Kansas Department of Agriculture's website at: <http://agriculture.ks.gov> and fill out a Request for Weed Free Forage Inspection form. An Inspector will then contact you to set up a date and time to inspect your fields.

If you are interested in purchasing certified weed free forage, a list of producers is found on our website.

#### 2016 NAISMA Weed List

Kansas's 12 noxious weeds

Absinth wormwood	Dalmatian toadflax	Oxeye daisy	Squarrose knapweed
Austrian fieldcress*	Diffuse knapweed	Perennial pepperweed	St. Johnswort
Black henbane	Dyers woad	Perennial sowthistle	Sulfur cinquefoil
Buffalobur	Field scabious*	Plumeless thistle	Tall buttercup*
Common burdock	Hoary alyssum*	Poison hemlock	Tansy ragwort
Common crupina	Horsenettle	Puncturevine	Vipers Bugloss/Blueweed*
Common mullein*	Houndstongue	Purple loosestrife	Wild oats
Common tansy	Jointed goatgrass	Rush skeletonweed	Wild proso millet
Common teasel*	Meadow knapweed	Scentless chamomile	Yellow hawkweed
Cutleaf teasel*	Medusahead	Scotch thistle	Yellow starthistle
Dame's rocket*	Orange hawkweed	Spotted knapweed	Yellow toadflax

\* Newly added species

## Integrated Weed Management: Part 8 - Biological Control

What better way to control your noxious and invasive weeds than to have someone else do it for you, and for free. Well, okay, not someone but something. The biological control of weeds consists of introducing an agent into an infestation of noxious or invasive weeds and allowing it to feed upon, and helping to reduce the spread of, those weeds.

While most of the agents used in Kansas are insects, these agents can also include mites, nematodes or pathogens, such as fungi or rusts. Most biological control agents will not kill the plant they are feeding upon. They will usually feed on a particular part of the

plant such as the flower, seeds, roots or stem while allowing the plant to live, ensuring a continued food supply. The benefit in using these agents is, therefore, not to kill the plant but to reduce its ability to reproduce and spread and to stress the plant, increasing the effectiveness of other control methods.

The United States Department of Agriculture's



(USDA) Animal and Plant Health Inspection Service (APHIS) program regulates the movement of biological control agents into the country and between states. Both before allowing an agent into the US, and after it arrives, the Agricultural Research Service spends many years studying it to make sure it will eat only one species of weed and will die before eating any other species. Once an agent is approved to be released in the US, any person or agency wishing to release an agent in their state must obtain a permit to do so from APHIS. The Kansas Department of Agriculture is currently permitted to import 42 dif-



ferent species of biological control agents for use on 12 species of noxious and invasive weeds. If you are interested in using biological control agents as part of your weed management plan, contact your county weed director for more information.

## Control Corner: Drift Reduction

The use of herbicides to control weeds is one of the most widely used control methods in Kansas. They are relatively inexpensive, easy to apply and very effective at controlling weeds. So it's all good, right? Well, not entirely. If herbicides are applied improperly or in the wrong conditions, they can cause as much harm as good.

Because of the vast complexities of the issue, there is no legal definition of drift. An unofficial definition could be the unintentional movement of herbicide from one area to another. This movement can be through "Particle Drift"

which is the physical transportation of particles or droplets of herbicide or "Vapor Drift" which is when the herbicide evaporates from the plant and is blown to other areas on the wind. This is the harder of the two to control.

Reducing drift is rather easy if you use the right tools and a little common sense. A good place to start is with the herbicide you choose to use. You want to pick one with the lowest volatility. This means that it will not evaporate as quickly as other herbicides and more of it will remain on the plant. Next, consider how you

apply the herbicide. Spray tips that produce larger droplets are better because a coarser spray will not blow as far and more will fall onto the plants. Lower nozzle pressures will also reduce the chance of drift. There are also drift additives you can include in your tank mix that will help increase droplet size.

One of the more important precautions you



can take is to apply in the best weather conditions. High winds will increase particle drift while high temperatures will increase vapor drift. How do you know which conditions are best, and worst, for applying herbicides (how windy is too windy)? The label that comes with the herbicide will specifically state which wind speed and temperatures you cannot apply in. Always read and follow the label when applying any pesticides.

For more information on pesticides and drift, contact KDA's pesticide and fertilizer division.



*Plant Protection and Weed Control*

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Plant Protection and Weed Control staff work to ensure the health of the state's native and cultivated plants by excluding or controlling destructive pests, diseases and weeds. Staff examine and analyze pest conditions in crop fields, rangelands, greenhouses and nurseries. Action taken to control potential infestations of new pests, whether they are insects, plants diseases or weeds, is beneficial to the economy and the environment.

#### **Our mission is to:**

- Exclude or control harmful insects, plant diseases, and weeds;
- Ensure Kansas plants and plant products entering commerce are free from quarantined pests;
- Provide customers with inspection and certification services.

## **Invasive Species Spotlight**

### **Old World Bluestems (*Bothriochloa bladhii* & *B. ischaemum*)**

The term "Old World bluestems" refers to two species of warm-season perennial grasses, Caucasian and Yellow. There are also several cultivars such as WW-Spar and King Ranch. In Kansas the most common of the two is Caucasian while Yel-



low is more common in Oklahoma. Currently one or both of them have been identified in 68 counties in Kansas and experts in the field believe they are in many more counties as well. Both species were introduced into the United States in the early 1900s as forage species and were included in early CRP mixes. They have since been identified as being highly aggressive, prolific seed producers and able to prevent more desirable species from growing near them. Livestock producers

have also found them to be low in palatability. These traits make them highly invasive. Because they are so closely related to our native bluestems they are difficult to control. Control options are very limited. Repeated applications of glyphosate or imazapyr have shown the best results in field tests by KSU researchers but they will also kill or set back native grass and forb species. Burning or mowing in before chemical applications will help increase chemical control but will not harm the grasses by themselves.

There are no other mechanical or biological control options available. Identification is difficult unless the flower or seed heads are present. Caucasian bluestem resembles a miniature (1-3 feet) Johnsongrass while Yellow bluestem has fewer silvery, reddish-purple flower heads that all grow above the central stem.

