

### The History of Weeds in Kansas

#### Special points of interest:

- Some of the first control options for field bindweed was salt, at 25 tons per acre.
- Salt was also considered to be a beneficial soil amendment for wheat production.
- Jointed goatgrass was a noxious weed from 1961 to 1972, making it the only species ever removed from the list.

The history of weeds in Kansas is long and fascinating, or horrifying, depending upon your point of view. Weeds in general have been in Kansas for as long as there has been someone around to complain that a plant is growing where it wasn't wanted, after all, has anyone ever enjoyed sitting on a sand-bur?

The history of noxious weeds, however, only goes back to when we started introducing species, intentionally or not, back in the 19th century. The first rec-

orded introduction of what would become a noxious weed in Kansas was in 1832 when Johnsongrass was introduced as a potential forage crop. Field bindweed was accidentally introduced in 1873 as a contaminant in wheat seed on a farm in Marion County. The need to control weeds soon followed, although their choice of weeds was a bit different from ours today. In 1883 legislation was passed requiring road overseers to control Cockleburs, Rocky Mountain sand burs, bur-

docks, sunflower, Canada thistles and other "obnoxious" weeds. Twelve years later they revised the list and changed obnoxious to noxious and listed Russian thistle and Canada thistle as the first noxious weeds.

The first version of the modern noxious weed law was passed in 1937 with field bindweed as the only noxious weed. The next species added were Russian knapweed and hoary cress in 1945 with Johnsongrass added as a county option noxious weed.

### Nominate a Weed

The Advisory Committee, therefore, has created a way for anyone interested to be able to nominate a species of plant for consideration as a noxious weed. To do so, simply go to the noxious weed page of the KDA's website, (<https://agriculture.ks.gov/NoxiousWeeds>) and click on the link "Nominate a Species for Consideration as a Noxious Weed in Kansas" or scan the QR Code below. You will be taken to a page with a simple form to fill out, and you can add your name and contact information, if you want to. Then submit the form and the committee will take it from there.

They have their own form to fill out as they consider different aspects of the nominated species. Once they have reviewed the species, they will decide to either decline to further consider the species, reserve the species for later consideration, or accept the species and run it through the risk assessment to determine if it should be recommended to the Secretary as a potential noxious weed.

With your help we can try to improve our chances of winning the war on weeds.



#### Inside this issue:

The History of Weeds in Kansas	1
Nominate a Weed	1
Calibration Apps	2
Control Corner: Biological Control without Permits	2
Invasive Species Spotlight: Poison Hemlock	3

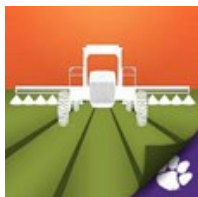
Sign up to receive the Noxious and Invasive Weed Update automatically via email at [agriculture.ks.gov](mailto:agriculture.ks.gov)

The Noxious Weed Act (K.S.A. 2-1314) outlines the process for declaring a species of plant to be a noxious weed in Kansas, which starts with a recommendation to the Secretary of Agriculture from the State Noxious Weed Advisory Committee. The Advisory Committee has their own procedure to determine which species should be recommended to the Secretary, and that starts with deciding which species to run through a risk assessment. The hardest part of the whole thing is deciding which species should be considered in the first place.

## Herbicide Application Apps: Calibration

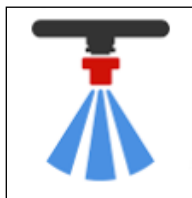
There are quite a few different apps out there aiming to help you manage your herbicide, or any other pesticide, applications, but they tend to fall into specific categories. The types we will discuss in this article are those that help calibrate your sprayers, so that you apply exactly the amount you intend to.

The first calibration app is Calibrate My Sprayer from Clemson University. It does not have any bells or whistles, but is simple to use and provides no more information than it promises; the output of your sprayer. It will calibrate for either banded or broadcast applications and requires simple inputs of nozzle spacing along the boom, number of nozzles, and the speed at which you will apply. It then requires you to collect the discharge from



your nozzles for a time (in seconds) you set. From that, it will tell you the number of gallons per acre you will apply. You can save this information for each sprayer you use, although it is always good to recalibrate once or twice each year.

The second app is Sprayer Calibrator from Farmis. This app is more complicated but also provides a lot more information. It will allow you to choose your spray tip, as well as your nozzle spacing and sprayer length, from which it calculates the number of nozzles, your tank capacity and the application rate based on the label requirements. It even has a Pesticide Catalog you can use to find that information. It will then have you set two of five rate settings, PSI



(pressure), GPM (gallons per minute), GPA (gallons per acre), and MPH (speed). The slide inputs for the settings make it hard to enter an exact number, but it will then calculate the other settings and tell you how many gallons of both product and water to add to your tank. It will also track your application in real time to help keep you traveling at the correct speed.

A similar app from TeeJet, Spray Select, will help you decide which spray tip you need for any application and let you calibrate any spray tip you are currently using. It will even tell you if you need to replace your tip based on that calibration. But, if you select the Spray Calculator option, it will allow you to calibrate your sprayer using basic, easy to understand data entry options.



## Control Corner: Biological Control without Permits

In the past, if you wanted to release biological control agents (insects) to help control noxious or invasive weeds on your land, you had to have a permit from the USDA's Animal and Plant Health Inspection Service (APHIS), or use the one KDA maintains, and encourages you to use. Now however, many of the most commonly used agents are available for anyone to use without a permit.

While there currently are not agents available for all of our worst weeds, there are 59 agents available for 14 species of both noxious and invasive weeds found in Kansas. Of those only 11 of those



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Knapweed Root Weevil

agents require a permit to transport them across state lines and KDA's permit covers all of them. For a list of the agents available, and the weed species which they help control, go to the noxious weed page of the KDA's website, (<https://agriculture.ks.gov/NoxiousWeeds>) and click on the link "Integrated Weed Management" or scan the QR Code below.

Biological control agents are effective at slowing a plant's growth or reducing its ability to reproduce, depending upon which part of the plant the insect feeds. They do not, however, do a very good job at killing the plant. After all, it needs the plant to remain alive to be able to survive. Because of this, the Noxious Weed Act does not allow non-chemical control options to be used by themselves when

controlling perennial species, multiple methods must be used together. Keep in mind that this applies to noxious weeds only, individual methods may be used alone when controlling invasive species.

While there are a few commercial sources for biological control agents, such as Nez Perce Bio-Control Center (<http://www.nezpercebiocontrol.com>) and Integrated Weed Control (<https://integratedweedcontrol.com>), your best bet to obtain agents for release is to contact Scott Marsh with KDA (see contact information on page 3). There is a good chance he will be able to find the agent you are looking for at little to no cost.





*Plant Protection and Weed Control*

Any questions comments or article suggestions, please contact:

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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.

Visit our website at:  
[agriculture.ks.gov](http://agriculture.ks.gov)



## Invasive Species Spotlight

### Poison hemlock (*Conium maculatum*)

A poisonous weed that has been on a lot of people's minds this year is poison hemlock (*Conium maculatum*). It is commonly found in ditches, field edges and wet areas, but can also be found in residential areas.

The tall, single stemmed plant usually grows in clumps that expand over time, taking over an area of

favorable habitat. One of the best ways to identify it for sure is to look at the stems. They are hollow and green with purple blotches. Similar species such as Queen Anne's Lace, Yarrow, and Wild Parsley have green stems, but they do not have the purple blotches. Other identifying characteristics are the toothed, compound, fern-like leaves and the tiny white leaves grouped in umbels at the end of multiple stems.

Because it is a biennial species, control is easily

accomplished by digging, hand-pulling or mowing. Keep in mind that the plant does contain toxins, so be sure to wear long-sleeves and gloves when working with it. For larger infestations, there are several herbicides that are effective in controlling poison hemlock, such as 2,4-D, triclopyr, and glyphosate. Effective combinations of herbicides include Aminopyralid and Metsulfuron, and Picloram combined with 2,4D.

While the toxicity of poison hemlock is a concern, cases of poisoning in humans is rare as the plant or its juices must be ingested to cause harm. Some people with sensitive skin can get a rash from contact with the plant. Livestock will usually avoid eating the plant. If you feel someone has ingested any portion of the plant, contact the poison control center at (800) 222-1222.



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