

Special points of interest:

- Parasitism is one of three types of symbiosis, or close relationships between two different species. The three types of symbiosis are:
- Mutualism, in which both species benefit,
- Commensalism, in which one species benefits and the other is unaffected, and
- Parasitism, in which one species benefits and the other is harmed.

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We have discussed noxious weeds and the law that regulates them in Kansas quite a bit in these articles so this time I thought we might mix things up a bit and discuss another law that regulates other weeds in other ways. The Plant Pest and Agriculture Commodity Certification Act (K.S.A. 2-2112, et seq.), allows for certain plant pests to be quarantined. A quarantine means that the species listed cannot be moved into, or within, the state.

There are currently four quarantines in place that restrict the movement of Purple loosestrife, Grecian foxglove and Salt cedar (Tamarisk). The fourth quarantine restricts the

As mentioned in the article above, all species of plants on the Federal Noxious Weed list are quarantined in the state of Kansas. This list is the nation’s first line of defense against the introduction of those plant species that represent a pest of potential economic importance to the country and are not yet present, or present but not widely distributed. While there are 112 species of terrestrial, aquatic and parasitic plants on the list, only a few of them are of direct concern

The “Other” Weeds List



movement of all federally listed noxious weeds.

While only a few of the more than 100 species on the federal noxious weed list could potentially infest Kansas, we have listed all of them to ensure we don’t get surprised in the future. This also allows us to help the federal government in their work to stop the spread of these weeds.

We are also in the process of developing a quar-



antine for the two Old World bluestem species, Caucasian and Yellow bluestem. This one will be a little different in that it will only quarantine the seeds and roots rather than the plants themselves. This will help reduce the introduction and spread of the species.

This same quarantine can, and is, used for other threatening pests out there like the insects Emerald ash borer and Walnut twig beetle, the thousand canker disease, and Karnal bunt, a fungus.



Uncle Sam’s Weeds List

to Kansas. Most of them are threats to the warmer and moister climates of Florida or coastal California.

The Animal and Plant Health Inspection Service, or APHIS, an agency of the United States Department of Agriculture (USDA), is in charge of both developing and enforcing the list, which prohibits the importation and interstate movement of Federal noxious weeds. It does this by enforcing mandatory inspec-

tions of any agricultural imports before they leave the exporting country and before they leave the port where they first enter the US.

Before a plant is added to the list a risk assessment, based on literature searches or other research, is completed. This will allow APHIS to know that a plant could pose a threat to the country before it is introduced, preventing and harm from occurring.

The Vampires of the Weed World

While weeds, do not have blood to be sucked out by fang-bearing plants in black capes, there are plant species out there that do draw water, nutrients and even chlorophyll out of their victims. These are called parasitic plants because they survive by living off of a host plant.



There are many parasitic plants throughout the world such as everybody's favorite Christmas plant, mistletoe. Several species are native to North America such as dwarf mistle-

toe, Wyoming's state flower, Indian paintbrush and dodder, a particularly damaging parasitic plant which is also native to Kansas.

As was stated in the article on the first page, there are several parasitic plants on the federal noxious weed list. Most of those listed are in the broomrape family which parasitize the roots of plants. The reason they are on the federal list is because they have been known to negatively affect crop species such as corn, sorghum, sunflower, soybeans and our newest crop, hemp.

In many cases it is hard to tell that one plant is parasitizing on another one. Most broomrape plants seem to be growing out of the ground like any other plant. It is not until you dig up the plant and trace its roots through the soil that you will find that they have attached themselves to, and

have penetrated, the roots of their host plants.

In some cases parasitic plants do more than just steal water and nutrients from their host plants. Dwarf mistletoe will cause their host tree to grow dense masses of shoots from a single point, which results in what is known as a witch's broom.



Control Corner: Empty Pesticide Containers

Once you have finished with your pest control project, you are left with the empty pesticide container, and, over time, these containers begin to pile up, taking up space and getting in the way. There must be a way to safely dispose of these empty jugs, isn't there?

Well, yes, as a matter of fact, there is. And that way is explained on the label of every container. On each label, look for a section labeled "Storage and Disposal". This section, which usually has a border around it to make it easier to find, will explain the specific requirements for whichever pesticide you are using.

Most herbicide labels will require that you rinse out the container three times and then punch a hole in the bottom to prevent it from being re-

Storage and Disposal
Do not contaminate water, food, feed or fertilizer by storage or disposal. Open dumping is prohibited.
Storage: If this product is exposed to subfreezing temperatures, the active ingredient may crystallize and settle out of solution. Under these conditions the product should be warmed to at least 40°F and agitated well to dissolve any crystallized material prior to use.
Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
Container Disposal (Metal): Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.
Container Disposal (Plastic): Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
General: Consult federal, state or local disposal authorities for approved alternative procedures.

used in the future. If the container is reusable, you will not, of course, be required to damage the container. After this, you will usually be offered a choice of recycling the empty container, disposing of it in a sanitary landfill. In some cases, if the label and state and local authorities allow it, you may be able to burn the container. Some counties offer recycling for used pesticide containers.

When you are triple rinsing your empty containers, remember to pour the rinse water into your application equipment or store it to use as mix water for the next time you are using the same chemical.

Talk to your local recycling center, landfill, permitting office or your county weed director for more information on the best way to dispose of empty pesticide containers in your area.

And always remember, and don't ever forget;

The label is the law!

Always read and follow label directions.



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: Black Swallowwort

One of the lesser-known invasive species is Kansas black swallowwort, also known as dog-strangling vine, a perennial vine that can grow up to 7 or 8 feet long by late summer. If left alone, they can form dense mats of tangled stems and even climb and overwhelm trees although in Kansas it usually infests field edges and climbs fences.



They have dark green, shiny leaves that have an elongated heart shape. The flowers are small, dark-purple and star-shaped. They form pointed green pods that look like chili-peppers until they ripen, turn brown and split, releasing seed that float away on the wind. The pods are similar to those of milkweeds; in fact the swallowwort is in the milkweed family. In Kansas it is known to be established in Morris and Chase Counties Other than its invasive nature, preventing any native

plants to grow through the dense mats it forms, it is of concern because, as a member of the milkweed family, monarch butterflies are sometimes attracted to lay their eggs on its leaves. Unfortunately, because our monarchs have not evolved with the plant, the caterpillars cannot survive on the black swallowwort and die before developing into caterpillars, further reducing the populations.

To control the vine, you can dig it up, if you are sure that you remove the root crowns and all of the rhi-

zomes. Any that are left will quickly regrow. Mowing will not destroy the plant, but can reduce its spread, if you do it every year before the seeds develop. Triclopyr and Glyphosate are both effective if applied to the foliage after the plant has started flowering or to cut stems, like after mowing or pruning.

