

Woody Encroachment in Grasslands

The state of Kansas lost 3 billion pounds of forage or 2.5 million 1200-pound round bales' worth of forage to woody encroachment in 2019. This loss could have supported 247,360 cows or 1 million steers! It's not just Kansas losing grasslands to woody encroachment, either. Both the central and southern great plains easily top the list as the greatest number of acres lost to woody encroachment. Woody encroachment affects forage production, water quality and quantity, and wildlife habitats, and increases the risk of wildfires and vector-borne diseases.

The most common plant used as an example for woody encroachment is *Juniperus virginiana*, or eastern red cedar. They are commonly planted in shelterbelts or windbreaks in Kansas because they are cheap, readily available, and "easy" to establish. However, when not properly managed, they contribute to/are the source of what is collectively known as woody encroachment in Kansas. Eastern red cedars do this by contaminating nearby grasslands. Some sites are more vulnerable than others, especially depending on the level of disturbance and the availability of water. Eastern red cedar management after establishment is time consuming and costly, and therefore, it is no longer recommended to plant eastern red cedars where they can contaminate a grassland. Eastern red cedars have the potential to contaminate a site if one is within 200 yards.

The best method of control depends on the growth stage of the trees and the level of contamination. Trees only a couple of feet high or shorter are easy to cut with trimmers or a saw, or by using targeted grazing of livestock. When trees become too tall or too numerous, heavy machinery or fire are needed for control.

To summarize, tree plantings do not improve grasslands. They increase grassland vulnerability. If you would like more information about woody encroachment or to talk to a specialist, feel free to stop by your local extension office today!