Sericea Lespedeza in Kansas

Sericea lespedeza *(Lespedeza cuneata)* is a major invasive species of concern on rangeland, pasture, and some CRP acres in Kansas. This Category C noxious weed infests over 658,000 acres in Kansas (Figure 1). **Category C noxious weeds are those that are well established and known to exist in large or extensive populations. Control efforts should be directed at reducing or eliminating new infestations as well as using approved control methods on established populations.**

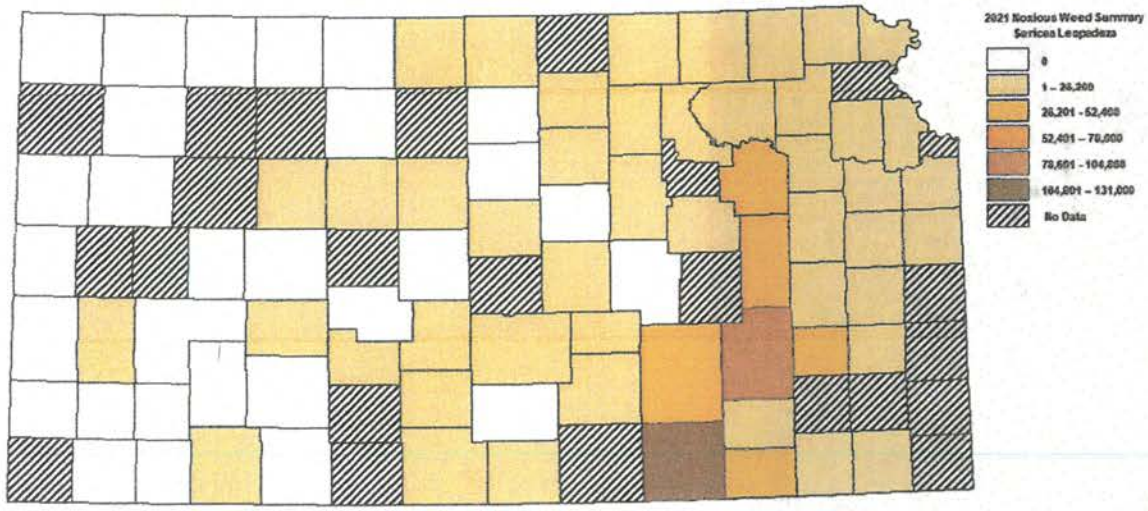


Figure 1. Distribution of sericea lespedeza in Kansas.

Sericea lespedeza is a perennial legume with trifoliate leaves. The leaves are club or wedged shaped (Figure 2). Plants are usually about 3 feet tall, but can grow to several feet in height under ideal conditions. Plants will start to bloom in August with white to cream-colored flowers with a purple throat (Figure 3). Most seed production occurs in September.

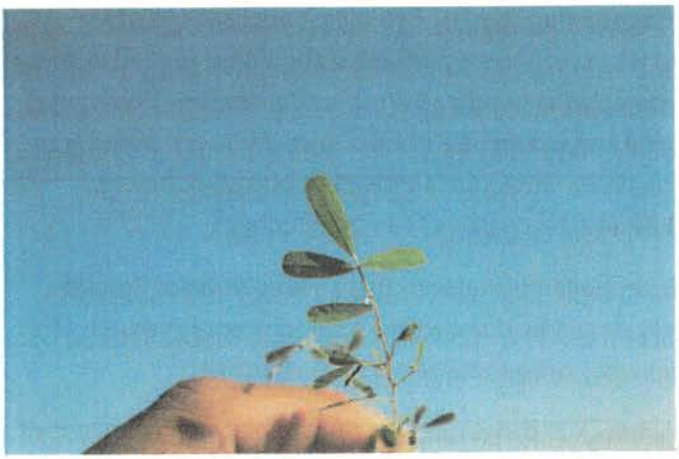


Figure 2. Trifoliate, wedge-shaped leaflets of sericea lespedeza. Photo by Walt Fick, K-State Research & Extension.

Figure 3. Sericea lespedeza flowering. Photo by Walt Fick, K-State Research & Extension.

June is a good time for control of sericea lespedeza using herbicides. At this time, sericea lespedeza is in a vegetative growth stage (Figure 4) and is rapidly growing. By the end of June plants will begin to branch and become woodier.

Figure 4. Vegetative growth stage of sericea lespedeza. Photo by Walt Fick, K-State Research and Extension

Chemical control options

The most effective herbicides to treat sericea lespedeza during the vegetative growth stage are Remedy Ultra (triclopyr) and PastureGard HL (triclopyr + fluroxypyr). Broadcast applications of Remedy Ultra at 1 to 2 pints/acre and PastureGard HL at 0.75 to 1.5 pints/acre should be applied in spray volumes of 10 to 20 gallons/acre. Another herbicide option would be Surmount (picloram + fluroxypyr) at 2 pint/acre. Surmount is a restricted-use pesticide and would be a good choice if you are wanting to treat roughleaf dogwood or blackberry at the same time. Once sericea starts to branch or flower, metsulfuron-containing herbicides such as Escort XP (0.5 to 1 oz/acre) can be effective.

For spot application, mix 0.5 fl oz PastureGard HL per gallon of water or use a 1% solution of Remedy Ultra in water. Aerial applications of these products should be done with a minimum spray volume of 3 gallons per acre. Higher volumes, e.g. 5 gallons per acre, will generally be more effective.

There are no grazing and haying restrictions for livestock and lactating grazing animals following use of Remedy Ultra and PastureGard HL. There is a 14-day waiting period prior to hay harvest using these two herbicides. If Surmount is used, there is no waiting period before grazing all livestock, except for lactating dairy animals (14-days before grazing). Surmount also requires a 14-day waiting period prior to hay harvest. There are no grazing or haying restrictions following application of Escort XP.

Herbicide treatments will need to be repeated every 2 to 4 years to keep this invasive species in check. Initial treatments should reduce dense stands to the point where spot treatment can be used in future years. Left untreated, sericea lespedeza will dominate a site, greatly reducing forage production and species diversity.

Grazing and Burning Effects on Sericea Lespedeza

Effect of early season steer grazing and late season sheep grazing on biomass of sericea lespedeza

	Year 1		Year 2	
Item	Steers only	Steer + Sheep	Steers only	Steer + Sheep
DM (mg/plant)	2021c	866d	3743b	1049d

Within rows means with unlike letters are different (P<0.05)

Lemmon et. al 2016

Effect of early season steer grazing and late season sheep grazing on seed production of sericea lespedeza

Item	Steers only	Steer + Sheep
Total seed wt (mg/plant)	712	91
Seeds, no./plant	548	70

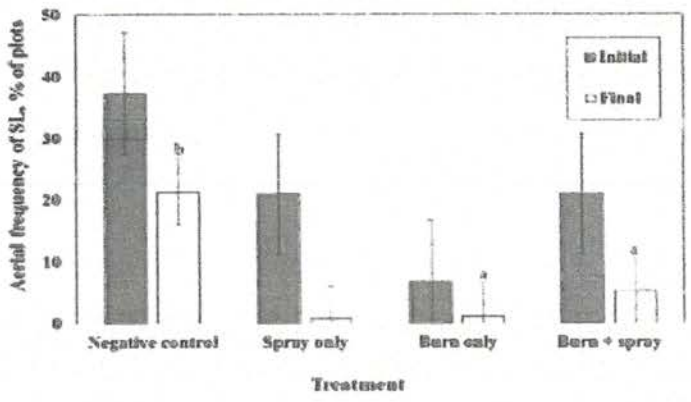
Lemmon et. al 2016

Effects of prescribed burning on dry matter and seed production of sericea lespedeza

Item	April 1	August 1	September 1
DM (mg/plant)	3815a	446b	130b
Seeds (no./plant)	590.3a	25.3b	0.3b

Alexander et al. 2021

Effects of late-summer prescribed fire and fall herbicide application on aerial frequency of sericea lespedeza



Gatson 2018

Management Recommendations

- Prevent seed production
- Integrate methods of control
- Develop systematic approach that reduces vigor of existing plants
- Be persistent

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