Sericea Lespedeza (Lespedeza cuneata) Control with PastureGard® HL and Remedy® Ultra herbicides

This perennial legume, also known as Chinese lespedeza, is a threat to native plants in rangeland, pastures, fields, parks, forests and meadows. The plant was originally introduced from Japan and planted for soil improvements, wildlife forage and cover. Once established Sericea lespedeza crowds out forage grasses and other native plants and develops extensive seed banks in the soil. Studies have shown the seeds may remain viable for 20 years or more. Left unchecked, small patches of Sericea lespedeza quickly spread into larger, more difficult and expensive-to-manage infestations. Cultural practices, such as grazing and burning, do not adequately control Sericea lespedeza. In fact, burning can enhance establishment by removing competition and scarifying the seeds to aid germination of new plants. Cattle will graze the plant early in the season. However, it quickly develops a woody stem, and its high tannin content makes it unpalatable. Because it is so aggressive, Sericea lespedeza often crowds out plant diversity, resulting in monocultures ill-suited for providing adequate food and cover for birds and other wildlife. Sericea has aggressively spread throughout Missouri, Oklahoma, eastern Kansas and southeastern Nebraska.

Identification
Sericea lespedeza is an erect, semi-woody plant ranging from 3 to 5 feet tall. The leaves are alternate along the stems and each leaf is divided into three smaller leaflets, about 1/2 to 1 inch long. Leaflets are covered with densely flattened hairs, producing a grayish-green or silver appearance. Near the axils of upper and median leaves, violet to purple flowers emerge in late summer singly or in clusters of two to four. Sericea spreads from root crowns and seeds. Seed dispersal is primarily by birds and animals and by haying infested fields.

Herbicide Application Timing
Early summer: Begin treatment when Sericea lespedeza is a minimum of 8 inches tall (May to June). Treatment may continue as long as plants are actively growing throughout the summer. Use the higher labeled rate when the plants are larger than 18 inches.

Early fall: Treatment may continue through September when plants are actively growing. The higher labeled rate should be used late in the season due to the advanced growth stage of the plant.

Table 1: Sericea lespedeza control one year after treatment with three herbicides applied at three application timings. Data is a summary of 21 field trials located in Oklahoma (4), Kansas (7), Nebraska, Illinois, and Georgia.

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Timing</th>
<th>Data Source</th>
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</thead>
<tbody>
<tr>
<td>PastureGard HL</td>
<td>May/Jun 8&quot;</td>
<td>OK (4), KS (7), NE, MO (7), IL (1), GA (1)</td>
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<tr>
<td>PastureGard Ultra</td>
<td>May/Jun 8&quot;</td>
<td>OK (4), KS (7), NE, MO (7), IL (1), GA (1)</td>
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<tr>
<td>Remedy Ultra</td>
<td>May/Jun 8&quot;</td>
<td>OK (4), KS (7), NE, MO (7), IL (1), GA (1)</td>
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<tr>
<td>metsulfuron</td>
<td>Aug/Sept</td>
<td>OK (4), KS (7), NE, MO (7), IL (1), GA (1)</td>
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Data from 21 trials in OK (4), KS (7), NE, MO (7), IL (1), GA (1) Mean separation within season of application were made using non-overlapping 95% credible intervals derived from Bayesian methods utilizing a normal model.
Herbicides

PastureGard® HL (combination of triclopyr and fluroxypyr) at 0.75 to 1 pint per acre and Remedy® Ultra (triclopyr) at 1 to 1.5 pints per acre provides the most consistent control of Sericea lespedeza across multiple application timings (Figure 1). The higher label rates tend to be more consistent than lower rates especially at August and September applications. Metsulfuron applied at later application timing provides good control of Sericea lespedeza. Opensight® herbicide (a combination of metsulfuron and aminopyrpid) provides good late season control when applied at 3 to 3.3 oz of product per acre. The use of a non-ionic surfactant is recommended for all treatments.

Application

Broadcast Application: Adequate coverage is a key component of control for Sericea lespedeza. For best results, apply 3 or more gallons per acre total spray volume by air or 10 to 20 gallons per acre total spray volume by ground equipment. Use of a nonionic surfactant at 1 to 2 quarts per 100 gallons of spray solution is recommended for all Sericea lespedeza treatments.

Spot application: Mix 3 pints PastureGard HL or 4 to 6 quarts Remedy Ultra per 100 gallons of water (1 fl oz PastureGard HL or 1.5 to 2 fl oz Remedy Ultra per gallon of water). Apply the spray uniformly and thoroughly wet the Sericea lespedeza foliage. Tank mixing of PastureGard HL or Remedy Ultra with other herbicides is not required to control.

When using a backpack sprayer to treat small patches, adjust the spray tip to produce a higher volume spray, or install a flat spray tip such as a Teejet 2503 or 4004E. Backpack spraying is efficient for minor infestations and follow-up spot treatments. When treating by hand, be sure to spray all of the plants’ growing tips, spraying to wet at least 80 percent of the foliage.

Commitment

Successful management of Sericea lespedeza requires a long-term commitment because of the tenacious nature of the plant, longevity of seed viability, and large seed bank in the soil. The management goal must be to control the plants and prevent seed production until the soil seed bank is exhausted. Treated areas should be checked each year and new plants controlled. Establishing and maintaining a thick cover of desirable grasses through proper grazing management helps discourage new plants.

For more information visit www.RangeAndPasture.com

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