Lespedeza

Description
Common lespedeza, also known as Japanese clover, (*Kummerowia striata*, syn. *Lespedeza striata*) is a very common summer weed that can easily choke out thin turf. It is often found in open woods and fields and frequently in disturbed areas and turf.

Lespedeza is a mat-forming, wiry stemmed, prostrate, freely branched summer annual. It has dark green trifoliate (arranged in threes) leaves with three oblong, smooth leaflets. Leaflets have parallel veins nearly at right angles to a prominent mid-vein. Its leaves have smooth edges and a short spur at the tip of each leaflet. Lespedeza has a semi-woody taproot and grows close to the ground, making it difficult to cut with a mower. It flowers in late summer with pink to purple, single flowers found in leaf axils on most of the nodes of the main stems.

Hand pulling is an option, especially in landscape beds where herbicides pose a possible threat to desirable plants.

Cultural Control
Common lespedeza grows well in thin turf and dry, compacted areas. To discourage lespedeza’s growth, it is recommended to increase the mowing height and to keep the soil’s pH and fertility at correct levels for your turf. For more information on growing healthy turfgrass, see HGIC 1201, *Fertilizing Lawns*; HGIC 1205, *Mowing Lawns*; and HGIC 1207, *Watering Lawns*.

Hand pulling is an option, especially in landscape beds where herbicides pose a possible threat to desirable plants.
**Chemical Control**

**In Lawns:** Cultural controls should first be implemented before applying herbicides for lespedeza control. However, if after taking steps to modify lawn care techniques, chemical control may still be necessary to further reduce the lespedeza population. Herbicides should be carefully chosen according to turf species and all label instructions followed.

A three-way herbicide can be used on bermudagrass, zoysiagrass, centipedegrass, St. Augustinegrass and tall fescue. The active ingredients of a three-way herbicide often include the following broadleaf weed killers: 2,4-D, dicamba, and mecoprop (MCPP). Examples of three-way herbicides are:

- Ferti-lome Weed-Out Lawn Weed Killer with Trimec®,
- Southern Ag Lawn Weed Killer with Trimec®,
- Bayer Advanced Southern Weed Killer for Lawns,
- Bonide Weed Beater Lawn Weed Killer Concentrate, and
- Spectracide Weed Stop Weed Killer for Lawns.

**Note:** Herbicides containing 2,4-D should be applied at a reduced rate on St. Augustinegrass and centipedegrass to prevent damage to these lawns. Read the product label for the number of fluid ounces of the 3-way herbicide to add per gallon of water in a pump-up sprayer. If a second application is needed, apply the herbicide in spot treatments about 10 days later.

In addition to three-way herbicides there are several other herbicides that can be used for lespedeza control in home lawns. Atrazine may be used to control lespedeza in centipedegrass and St. Augustinegrass. Examples of products containing atrazine are:

- Southern Ag Atrazine St. Augustine Weed Killer,
- Hi Yield Atrazine Weed Killer, Image for St. Augustinegrass & Centipedegrass with Atrazine,
- Image Herbicide for St Augustine & Centipede with Atrazine, and
- Spectracide Weed Stop for Lawns Concentrate for St. Augustine & Centipede Lawns (a Ready to Spray, hose end bottle).

Metsulfuron (such as in Martin’s TopShot Weed Killer for Lawns, and Scott’s Spot Weed Control for Lawns – a pre-mixed spray product) gives very good control of annual lespedeza in bermudagrass, centipedegrass, St. Augustinegrass, and zoysiagrass. Manor and Blade are also products that contain metsulfuron, but are packaged for landscape professionals. For these latter two professional products, a non-ionic surfactant (such as, Southern Ag Surfactant for Herbicides) is required at 2 teaspoons per gallon of spray mix for best control. A non-ionic surfactant will help the herbicide adhere to the leaves for increased penetration.

Do not apply metsulfuron to a lawn if over-seeded with annual ryegrass or over-seed for 8 weeks after application. Do not plant woody ornamentals in treated areas for one year after application of metsulfuron. Do not apply metsulfuron herbicides within two times the width of the drip line of desirable hardwood trees.

The herbicide mix of thiencarbazone, iodosulfuron, and dicamba, as found in Celsius WG Herbicide, is selective to control many broadleaf weeds and several grass weeds in all four of the common warm-season grasses. It cannot be used in fescue lawns, but can be used to remove fescue from warm-season lawns. Apply when annual lespedeza is actively growing and again 2 to 4 weeks later. The addition of a non-ionic surfactant, such as Southern Ag Surfactant for Herbicides, will increase control (see Table 1).

**Note:** Read and follow all label instructions when using herbicides. Repeat herbicide applications 10 to 14 days apart may be required for acceptable control. Do not mow within 48 hours after application of most herbicides. Most postemergence herbicides need to dry on the leaf surface before irrigation or rainfall occurs.

**CAUTION:** Most herbicides should not be applied during spring transition (green-up period of a warm-season turfgrass lawn) or when air temperatures exceed 90 °F as this can cause severe damage to the turfgrass. A newly seeded lawn should be mowed a minimum of three times before applying an
herbicide. Rainfall or irrigation a day or two prior to herbicide application reduces the chance of turfgrass injury and enhances weed uptake of the herbicide.

**Table 1. Turf Tolerance to Herbicides for Lespedeza Control.**

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Bermudagrass</th>
<th>Centipedegrass</th>
<th>St. Augustinegrass</th>
<th>Tall Fescue</th>
<th>Zoysiagrass</th>
</tr>
</thead>
<tbody>
<tr>
<td>atrazine</td>
<td>D</td>
<td>S</td>
<td>S</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>(3-way) 2,4-D + MCPP + dicamba</td>
<td>S</td>
<td>I</td>
<td>I</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>metsulfuron</td>
<td>S</td>
<td>S</td>
<td>S-1</td>
<td>NR</td>
<td>S</td>
</tr>
<tr>
<td>thiencarbazone, iodosulfuron, &amp;</td>
<td>S</td>
<td>S</td>
<td>S²</td>
<td>NR</td>
<td>S</td>
</tr>
<tr>
<td>dicamba¹</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

S = Safe at labeled rates  
I = Intermediate safety, use at reduced rates  
NR = Not registered for use on and/or damages this turfgrass.  
D = Fully dormant turf only  

Note: Do not apply postemergence herbicides, except Celsius WG Herbicide, to lawns during the spring green up of turfgrass.

¹This mix of active ingredients requires the addition of 2 teaspoons of a non-ionic surfactant (that is, a wetter-sticker agent to aid in weed control at 0.25% by volume) per gallon of water, such as Hi-Yield Spreader Sticker.

²Spot treatments to St. Augustinegrass at temperatures above 90 degrees may cause temporary growth regulation.

**In Landscapes:** If lespedeza is a problem in landscape beds, glyphosate can be used for spot treatments around ornamental plants. Examples of concentrated glyphosate products are:

- Roundup Original Concentrate,
- Roundup Pro Herbicide,
- Martin’s Eraser Systemic Weed & Grass Killer,
- Quick Kill Grass & Weed Killer,
- Bonide Kleenup Weed & Grass Killer 41% Super Concentrate,
- Hi-Yield Super Concentrate,
- Maxide Super Concentrate 41% Weed & Grass Killer,
- Super Concentrate Killzall Weed & Grass Killer,
- Tiger Brand Quick Kill Concentrate,
- Ultra Kill Weed & Grass Killer Concentrate,
- Gordon’s Groundwork Concentrate 50% Super Weed & Grass Killer,
- Zep Enforcer Weed Defeat III,
- Eliminator Weed & Grass Killer Super Concentrate,
- Monterey Remuda Full Strength 41% Glyphosate,
- Knock Out Weed & Grass Killer Super Concentrate,
- Southern States Grass & Weed Killer Concentrate II,
- Total Kill Pro Weed & Grass Killer Herbicide,
- Ace Concentrate Weed & Grass Killer.

Glyphosate is a non-selective herbicide that should be used with caution. Do not allow glyphosate spray mist to contact ornamental foliage or stems as severe injury will occur. A cardboard shield may be used to prevent glyphosate spray from drifting to nearby ornamentals.

Pesticides updated by Joey Williamson, HGIC Horticulture Extension Agent, Clemson University, 10/16. Originally prepared by Morgan E. Judy, Extension Agent, Orangeburg County, Clemson University. New 05/09.

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