Bahiagrass

Bahiagrass (*Paspalum notatum*), also known as highwaygrass, is an aggressive, warm-season perennial grass. Bahiagrass has a mat-forming habit with a light green color, coarse texture and open canopy. It is native to South America and was introduced into the U.S. in Florida as a forage grass around 1913.

Bahiagrass habit with seed heads.
Ted Bodner, Southern Weed Science Society, Bugwood.org

Bahiagrass is easily identified by its distinctive “Y-shaped” seed head. It tolerates a wide range of soil conditions and spreads by seeds and rhizomes (a horizontal, modified stem found at or just below ground level). Bahiagrass growth is favored by drought, so it is an indicator plant for drouthy soil conditions. The aggressive nature and drought tolerance of bahiagrass make it ideal for erosion control along roadsides and highway rights of way. However, its aggressive nature also makes it difficult to control as a weed in the landscape.

Controlling
Bert McCarty, Clemson University

Before starting a weed control program homeowners should realize that complete eradication of bahiagrass (or any weed) from the landscape is not practical. A more practical approach is to control (not eradicate) the weed by limiting the infestation to a tolerable level.

Control in Lawns
Maintaining the health and density of your lawn is the best method for preventing a weed problem. Proper mowing height, irrigation and fertilization of the turfgrass will be the best defense against weeds. For more information on these topics, see the following fact sheets: HGIC 1201, *Fertilizing Lawns*; HGIC 1205, *Mowing Lawns* and HGIC 1207, *Watering Lawns*. 
If bahiagrass becomes a problem in a turf area, it can be dug up or an herbicide may be used. If an herbicide treatment is chosen, treatments should be timed appropriately for optimum effectiveness.

Since bahiagrass is a perennial weed that also reproduces by rhizomes, post-emergent herbicides will also be necessary for improved control. Post-emergent herbicide applications should start in May, when bahiagrass is small and starting to actively grow. See table for safe herbicides according to turf species.

**Turf Tolerance to Post-emergence Herbicides for Bahiagrass Control.**

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Bermudagrass</th>
<th>Centipedegrass</th>
<th>St. Augustinegrass</th>
<th>Tall Fescue</th>
<th>Zoysiagrass</th>
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<tr>
<td>sethoxydim</td>
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<td>imazaquin</td>
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<td>metsulfuron</td>
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<td>atrazine</td>
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S= Safe at labeled rates.  
I= Intermediate safety, use at reduced rates.  
NR= Not Registered for use on and/or damages this turfgrass.

Once bahiagrass weeds have been eliminated in areas of the turf, bare spots will be left behind. To prevent the invasion of new weeds in these bare spots, it is best to fill them with plugs or sprigs of the desired turfgrass.

**Glyphosate:** Non-selective herbicides, such as glyphosate, can be used for spot treatments; however, desirable grasses can be severely injured or killed with contact. Multiple applications of glyphosate will be required to control bahiagrass. Examples of glyphosate products in homeowner sizes are:

- Roundup Original  
- Martin’s Eraser Systemic Weed & Grass Killer  
- Tiger Brand Quick Kill Grass & Weed Killer  
- Ultra Kill Weed & Grass Killer Concentrate

If it is not practical to prevent glyphosate from getting on desired grasses, then a selective herbicide should be used. The following information is a guideline for choosing a selective herbicide according to turfgrass type.

**Atrazine:** Atrazine is a post-emergence herbicide for bahiagrass control that also has pre-emergence activity to give fair control of bahiagrass seed. It will also give post-emergence control of many broadleaf weeds. However, it is only safe to use on centpedegrass and St. Augustinegrass lawns. For maximum effectiveness, apply atrazine when air temperatures reach 65-70 °F for four consecutive days. Examples of atrazine products in homeowner sizes are:

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

**Sethoxydim:** For centpedegrass lawns, the use of sethoxydim (Arrest Herbicide or BASF Segment Herbicide) will suppress bahiagrass. Sethoxydim should be used no sooner than 3 weeks after centpedegrass spring green-up. To more effectively treat the bahiagrass, do not mow 7 days before or 7 to 14 days after treating with sethoxydim. Reapply sethoxydim 3 weeks after initial application to suppress bahiagrass growth and seed head development.
Imazaquin: Image Herbicide Consumer Concentrate –Kills Nutsedge is a homeowner-packaged, post-emergence herbicide product that will aid in the control of and reduce competition from bahiagrass. It may be applied to established bermudagrass, Zoysiagrass, centipedegrass and St. Augustinegrass, but do not apply to tall fescue. Do not apply imazaquin to St. Augustinegrass for other weed control during the winter. Do not apply imazaquin just prior to or during spring transition (green-up of the lawn). Do not use imazaquin in vegetable gardens and do not use the grass clippings from treated lawns as mulch in landscape beds or around vegetables, fruit trees or small fruit plants.

Metsulfuron: Martin’s TopShot Weed Killer for Lawns is a homeowner-packaged herbicide product that will control bahiagrass, as well as many broadleaf weeds. Manor Herbicide and Blade Herbicide also contain metsulfuron, but are stronger products packaged for landscape professionals. Metsulfuron can be used on bermudagrass, St. Augustinegrass, centipedegrass, and zoysiagrass.

A non-ionic surfactant (such as Southern Ag Surfactant for Herbicides) is required at 2 teaspoons per gallon of spray mix for best control with the professional products, but is not needed for use in Martin’s TopShot Weed Killer. Some discoloration of turfgrass may occur after application of metsulfuron, and increased yellowing and stunting of turfgrass may occur with the addition of the surfactant. A repeat application may be required in 4 to 6 weeks for best control of bahiagrass. Follow label directions for reduced rate on centipedegrass.

Do not over-seed or re-sod for 8 weeks, or 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. Do not allow spray drift to contact desirable shrubs, and high temperatures at application may increase herbicide drift. Make metsulfuron applications when temperatures are below 85 °F. Allow one week between application of metsulfuron and other lawn pesticide products.

Control in Vegetable Gardens
It is best to attempt to treat weeds before tilling the soil for a vegetable garden. Tilling can break up and spread weed seed and perennial grass rhizomes throughout the garden plot. Some methods used to remove weeds in the vegetable garden include: hand pulling, mulch and post-emergent herbicides.

Cultural Control: Hand pulling bahiagrass may be a practical choice for small garden plots. If hand pulling is chosen, be sure to work when the soil is moist so roots of the bahiagrass can be removed easily from the soil.

Organic mulch (such as pine needles, ground leaves, compost, old hay or grass clippings) can be used in the garden to help suppress bahiagrass development. Before laying the mulch apply a layer of 6 to 8 wet newspaper sheets to act as a weed barrier. The newspaper layer will prevent weed development by blocking light to the weeds underneath, preventing their growth. Best of all, the newspaper should decompose before next spring. To prevent low oxygen levels in the root zone, keep organic mulch levels at a maximum of 3-inches deep. For more information on mulching the vegetable garden see HGIC 1253, Controlling Weeds by Cultivating & Mulching.

Glyphosate: A post-emergent herbicide can be used to treat the garden plot before planting. Glyphosate can be applied to the garden plot 3 or more days prior to planting. Glyphosate is most effective when weeds are actively growing, so do not apply during extreme heat, cold or drought conditions. Multiple applications of a 1.5 to 2.0% glyphosate solution may be necessary for control of perennial weeds like bahiagrass. See product label for mixing directions. For examples of glyphosate products in homeowner sizes, please see the “Control in Lawns” section.

Sethoxydim: Some products containing sethoxydim may be applied within the vegetable garden after planting. These will control most grass weeds, in addition to bahiagrass. However, do not apply near sweet corn. Examples of products labeled for use within vegetable gardens are:

- Hi-Yield Postemergence Grass Herbicide
- Bonide Grass Beater Over-the-Top Grass Killer Concentrate
- Ferti-lome Over-the-Top II Grass Killer Concentrate
Control in Landscape Beds

In landscape beds bahiagrass can be hand dug or controlled with an herbicide. As mentioned previously, it is best to prevent the invasion of bahiagrass by maintaining ideal growing conditions and using a 3-inch mulch layer to block weed development. Bahiagrass is a perennial weed that can emerge from both seeds and rhizomes. Once bahiagrass has made its way into the landscape bed an herbicide may be necessary if hand pulling is not practical.

Glyphosate: A non-selective herbicide, such as glyphosate, can be used for spot treatments around ornamental plants, but 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. For examples of glyphosate products in homeowner sizes, please see the list above in the “Control in Lawns” section.

Sethoxydim: Sethoxydim is a selective herbicide that can be applied safely in landscape beds containing most landscape plants, but check the product label for a listing of tolerant plant materials. Sethoxydim will only control grass weeds; however, do not allow sethoxydim to contact ornamental grasses. A 2.5% solution should be applied before bahiagrass reaches 4 inches tall. Read label directions for mixing. Examples of products containing sethoxydim in homeowner sizes are:

- Hi-Yield Postemergence Grass Herbicide
- Bonide Grass Beater Over-the-Top Grass Killer Concentrate
- Ferti-lome Over-the-Top II Grass Killer Concentrate
- Arrest Herbicide
- BASF Segment Herbicide

Glyphosate and sethoxydim are both more effective when weeds are actively growing and should not be applied under drought conditions. As with all pesticides, read and follow all label instructions and precautions. Do not apply selective herbicides to warm season lawns during their spring green up as injury can occur to the lawn. Wait until lawns are fully greened.

CAUTION: Atrazine and imazaquin can travel through soil and enter ground water, please read the label for all environmental precautions. Users are advised not to apply atrazine or imazaquin to sand or loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well-drained.


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