

# Blue Ridge PRISM

## Invasive Grasses - July 21, 2021

### Meeting Notes and Resources

[Watch](#) the recording.

Invasive Grasses: An Overview - [review the slides](#)

[Blue Ridge PRISM Summer 2021 Newsletter](#) featuring invasive grasses

The Summer Quarterly Meeting will focus on the identification, control, and long-term management of common invasive grasses in Virginia. A brief presentation offering an overview of common invasive grasses will be followed by a facilitated discussion and public question/answer session with an expert panel. The panelists have extensive experience in controlling and managing invasive grasses in forests, natural areas, upland pastures and agricultural lands, riparian buffers, restoration areas, and suburban areas.

#### Invasive Grasses Included in the Discussion

...but not limited to

*Arthraxon hispidus* var. *hispidus*, joint-head grass

*Phyllostachys aurea*, golden bamboo, *Bambusa* spp. and *Phyllostachys* spp., bamboos

*Opismenus undulatifolius*, wavyleaf basketgrass

*Microstegium vimineum*, Japanese stiltgrass

*Phragmites australis*, common reed

*Cenchrus setaceus* & *Cenchrus purpurascens* (formerly *Pennisetum setaceum* &

*Pennisetum alopecuroides*), fountain grasses

*Miscanthus sinensis*, Chinese silvergrass

*Sorghum halepense*, Johnsongrass

#### Panelist

Celia Vuocolo - Private Lands Biologist, Quail Forever

Brian Morse - Wildlife Biologist, Virginia Forestry and Wildlife Group

Art Gover - Penn State Wildland Weed Management (ret)

Dr. Jeffrey Derr - Professor of Weed Science, Virginia Tech

William Mays - Farmer, Nelson County

## Resources Mentioned in the Meeting/Placed in the Chat:

[Department of Forestry](#): find local person to come out and help with ID and plan of attack

Strategy and Prioritizing: [Where do I Start?! Prioritizing Invasive Plant](#)

Spotted Lanternfly: REPORT Sightings! Beginning to spread. Favorite foods are Ailanthus and grape vines, but they can impact a number of other plants too. Learn and report here: [Spotted Lanternfly in Virginia | Virginia Cooperative Extension | Virginia Tech](#)

William Hamersky (Blue Ridge PRISM) recommends a good grasses ID book, [Field Guide to Grasses of the Mid-Atlantic \(Keystone Books\) Paperback](#) – April 16, 2018 by Sarah Chamberlain (Author)

Desktop app for reporting invasive plants: [EDDMapS.org](#)

Invasive Resources: [Invasive.Org](#)

Weed Control Methods Handbook: Tools and Techniques for Use in Natural Areas [TNC Global Invasive Species Team page](#) (this TNC program is no more, but an archive of the resources the program generated are housed at [invasive.org](#) noted above).

Managing Japanese stiltgrass:

[July 2021 Weed Alert: Japanese stiltgrass](#)

[Blue Ridge PRISM Fact Sheet: Japanese stiltgrass](#)

[Penn State Extension Stiltgrass Bulletin - Japanese Stiltgrass - Articles Articles](#)

**What are some native plants that might be confused with Japanese stiltgrass?**

*Leersia virginica*, Virginia white grass

*Dichanthelium clandestinum*, deer-tongue grass (also look-alike for *Arthraxon*)

**What is the current best practice that Master Gardeners should recommend to homeowners to control Japanese stilt grass in lawns and small pastures?** In lawns, apply a crabgrass preventer (pendimethalin, prodiamine, etc.) prior to stiltgrass germination (late February to mid-March) - see our pest management guide for home grounds for those products. For postemergence control in cool-season turf, use fenoxaprop (Acclaim Extra or one of the Bayer Bioadvanced homeowner products containing fenoxaprop).

**Do you find that a chemical burn ( low rate diquat solution) at the onset of seed production can control stiltgrass with annual treatment until the seed bank is depleted?**

Treat 3-4 weeks before you normally see seedheads. Need to have thorough coverage with diquat as it is only contact herbicide.

**Can one control stiltgrass by timed mowing?**

Absolutely! Cut it to the ground just before it starts to flower. Usually late August or early September, depending upon where you are. Refer to PRISM's recent [Weed Alert](#) to learn more about the technique.

**Is it more effective to pull Japanese stiltgrass out by the roots compared to mowing it right before it produces seeds?**

Your choice! Both are equally effective. You got 10 plants? Pull 'em out. You got 500? I'd mow!

**If you manually pull it out (stiltgrass), do you have to dispose of it or can you leave it on the ground?**

If there are no seeds, you can leave the plants on the ground. If there are flowers or seeds, dispose of them in the garbage.

**Are you finding stiltgrass to really be suppressing native tree seedlings or ephemerals in our area? I've heard that said, however, from my observations, the stiltgrass appears so much later in the growing season, it doesn't seem to suppress our natives, although it does fill in every empty space remaining in the forest understory.**

Not necessarily seedlings, but it can impact native sedges/grasses and other herbaceous species. What I tend to see is high deer browse and stiltgrass together really impacting forest regeneration and herbaceous plant community. Deer browse hardwood saplings heavily in the winter. Perfect storm!

**Please address BURNING stiltgrass and wavyleaf basketgrass.**

Burning is not a direct tool for managing either of these species. One advantage of burning though is to remove dense stiltgrass thatch for easier control the following growing season. Burning of stiltgrass does not impact the seedbank.

**After spraying with glyphosate for killing Japanese stiltgrass what can then be done to help natives to re-establish in this area.**

You can wait and see what sprouts. Or you can plant natives and protect them.

**Are there any native grass/herbaceous species that you recommend, when combined with low-rate herbicide treatment, to provide competition for Japanese**

**stiltgrass? (With the goal of achieving long term control). Any preferred sources for seed?**

Golden Ragwort, Ground Nut, Asters, Sedges are all good to establish although Golden Ragwort spreads aggressively

Ernst Seeds out of Pennsylvania. <https://www.ernstseed.com> They have a wide variety of seed blends to choose. VNPS has a list of regional native plant vendors, vnps.org.

## Herbicides and Control Methods for Invasive Grasses

Weed wick -photo Brian Morse



Resources for herbicide trade names and active ingredients:

[https://cals.arizona.edu/crops/pdfs/Herbicide%20table%20\(4\)012611.pdf](https://cals.arizona.edu/crops/pdfs/Herbicide%20table%20(4)012611.pdf)

[http://www.gaweed.com/Herbicide\\_Modes\\_of\\_Action.pdf](http://www.gaweed.com/Herbicide_Modes_of_Action.pdf)

[https://www.udel.edu/content/dam/udelImages/canr/pdfs/extension/weed-science/2016\\_Take-Action-Herbicide-chart.pdf](https://www.udel.edu/content/dam/udelImages/canr/pdfs/extension/weed-science/2016_Take-Action-Herbicide-chart.pdf)

How much herbicide to use:

**VT/VCE backpack sprayer calibration pub:** [Calibrating Hand-Held and Backpack Sprayers for Applying Pesticides](#)

**Better video and pub from PSU:**

<https://extension.psu.edu/calibration-how-to-how-to-calibrate-a-backpack-sprayer>  
[Backpack Sprayer Calibration for Woodland Applications - Articles Articles](#)

Grass specific herbicides:

These preserve broadleaf plants, forbs (herbaceous flowering plants other than grasses), and tree seedlings. Can kill native grasses too.

Clethodim ("Envoy Plus")

Fluazifop ("Fusilade II")

Fenoxaprop ("Acclaim Extra")

Sethoxydim ("Segment")

Quizalofop ("Assure II")

Sulfosulfuron

Quinclorac (Drive is labelled for turf use. Facet is labelled for pasture use.)

Herbicide Questions:

**Please address health concerns regarding use of the herbicides you identified.**

For the post-emergent grass herbicides (sethoxydim, fluazifop, clethodim, imazapic, and glyphosate) - these herbicides affect processes in plants that do not occur in animals/people so they have low toxicity to people and generally carry only a caution statement on the label.

**What is the impact of these herbicides on beneficial soil microbes, invertebrates, and other critters?**

All herbicides are different and have differing effects on soil microbes. Some have no effects. Check out Weed Control Methods Handbook: Tools and Techniques for Use in Natural Areas

[TNC Global Invasive Species Team page](#)

**Surfactants and other additives to glyphosate and are some safer than others?**

In general, seek an aquatic-registered surfactant. The least toxic (to aquatic organisms) will be those registered in Washington State.



Personally, I use “Agri-Dex”, which is an aquatic-labeled crop oil concentrate. It’s pricier than other surfactants, but the LC50 values for aquatic test organisms are better (higher) than other aquatic surfactants.

**What is it about Roundup vs. Rodeo that allows 1 to be applied to wetland/pond edges and not the other? Does the Roundup contain the surfactant already in the mix, and if so, what is the name of it so I can look for it in the ingredients listing, please?**

Yes, the surfactant in Roundup formulations is toxic to aquatic life, so those formulations are only registered for upland use. Look for glyphosate formulations that are labeled for aquatic use when spraying in or near water.

The ingredients in the herbicide that are used in the surfactants are often proprietary and the manufacturer does not list them on the label. They just list the active ingredients, so we cannot tell you a specific chemical to look for on the label. Review the label and application guidelines to determine if it is approved for aquatic use.

**Any possibility of organic, non-toxic to people and animals, multi-purpose herbicide coming along?**

Not that I know of. Every herbicide, by definition, is toxic to something. Salt, bleach and vinegar can also be toxic. You could cover an area with black plastic sheets - that’s been done effectively for some invasives.

Herbicides				
Always follow all herbicide label directions and wear personal protective equipment (PPE) per label instructions.				
	Active Ingredient	Trade Name	Trade Name	Trade Name
broad spectrum herbicides	glyphosate	Round Up	Accord	Aquaneat
	imazapyr	Arsenal	Stalker	Habitat
	imazapic	Plateau		
Selective herbicides	sethoxydim	Poast	Hi Yield Grass Killer	
	clethodim	Agristar Clethodim 2E	Select	
	fluazifop	Fusilade II	Ornamec	

## Other Grasses

**Bermuda (wiregrass):** Must attack in summer while growing. Spring and fall control is not effective.

### Bermudagrass

**Do you have any quick ID tips for identifying between Johnsongrass and *Spartina cynosuroides*?**

Johnsongrass, *Sorghum halapense*, is found in drier areas like fields. Spartina is found in wet habitats. Another ID characteristic is to look for the white mid-rib, but keep in mind that eastern gamma grass also has a white mid-rib. Johnsongrass develops red spots resembling blood spatters in the mid-late summer on its leaves.

<https://www.invasive.org/weedcd/pdfs/wow/johnsongrass.pdf>

## Miscellaneous Questions

**What is the difference between cool and warm season grasses?**

Cool season grasses stay green until temperatures drop below 32 degrees F for extended periods and can survive subfreezing temperatures. Warm season grasses prefer the heat of southern climates. They grow the fastest during the summer, preferring temperatures between 80 and 95 degrees.