

Graze300 Adopted by VA DCR

By: Carl C. Stafford, Senior Extension Agent, Livestock Forages

Graze 300 VA, a Virginia Cooperative Extension branded program, has reached another milestone in its progress with producer adoption of extended grazing practices. The Graze 300 team is concluding its grant commitment with the Virginia Tech College of Agriculture, Center for Advanced Innovation in Agriculture. This grant funded our work to develop and deliver training, educational resources and technical applications supporting advances in grazing livestock management.

And now, the Virginia Department of Conservation and Recreation (DCR) is rolling out pilot testing of Graze 300 practices in two Virginia Soil and Water Conservation Districts (Culpeper and Headwaters). Grazing management advocated by Graze 300 will become part of the DCR SL10E cost share practice, an upgrade to the existing SL 10. In addition, measures of Soil Test Biological Activity (STBA) based on research by Dr Alan Franzluebbers, USDA ARS, NC State and implementation of Bale Grazing based on work by Dr Greg Halich, University of Kentucky, will be incentives added to the new practice.

Adding grazing days to livestock production increases profitability to a point, when compared to a long winter of hay feeding. Reaching 300 days of grazing can be the sweet spot economically for many producers and case studies developed by Extension Agents across Virginia show this. Our examples point to profit increases when stocking rate is reduced because extra grass grown is carried forward for use during drought and as a primary feedstuff in winter. In the end, less hay feeding will improve the bottom line as our budgets show hay is responsible for at least 50% of cow calf production costs.

Adding STBA to the new SL10E practice offers the potential to limit another cost related to stockpiled fescue - nitrogen fertilizer. Testing soil reveals the potential for plant-available nitrogen to be released from decomposing organic matter. Soils under long-term pasture and in no-till cropping often have an active N cycle involving organic matter decay which is responsible for releasing stored N. Old sods are expected to contain organic matter sufficient to release N at levels supporting adequate stockpiled fescue production. Work by Chris Teutsch in VA suggests that these sods contain sufficient concentrations of organic matter to release enough N to stockpile 2500 pounds of hay equivalent fescue per acre. Adding more N to these soils is not expected to result in an economic response in fescue production. Current N and hay costs further support the value of using of this practice.

The Bale Grazing practice offers a chance to strategically spread out fed hay and animal waste across a landscape capable of absorbing most of the nutrients introduced from hay. When compared to centralized feeding areas, bale grazing will result in fewer nutrients being lost in run-off during wet winter conditions, while spreading out impacts to pasture sods. Some re-seeding may be required on these feeding sites but nutrients from fed hay can be recycled for future production, while improving water quality.



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Piedmont Grassland Bird Initiative: Working alongside farmers to bring back our grassland birds

By: Justin Proctor, Coordinator, Piedmont Grassland Bird Initiative

Virginia farms have always been a place for birds. So much so that you might be hard-pressed to find a farmer that doesn't have an anecdote about any number of our iconic bird species. Most will be familiar with the sharp look and melodious song of the Eastern Meadowlark perched on a fencepost, the hauntingly beautiful face of a Barn Owl gliding over a hayfield at dusk, and the unmistakable—and highly sought after—"bob-white" call echoing from the back edge of a field. Many farmers will also be familiar with other "barnyard favorites", including Short-eared Owls, Northern Harriers, American Kestrels, Barn Swallows, Purple Martins, and Red-winged Blackbirds. But when it comes to birds that can be found on our agricultural grasslands—hayfields, cattle pastures, fallow fields, and the like—well... that list goes on...Bobolinks, Grasshopper Sparrows, Savannah Sparrows, Field Sparrows, and on...Indigo Buntings, Yellow-breasted Chats, Horned Larks, Loggerhead Shrikes, and on... In fact, there are over 50 species of birds that rely on Virginia's working grasslands for breeding, nesting, foraging, and refuge throughout the entire year.

And just as these species need grasslands, the grasslands need them. These birds offer priceless and irreplicable ecosystem services that keep grasslands healthy and balanced, from insect and rodent control to seed dispersal and nutrient recycling. However, the majority of grasslands in Virginia have, over time, been converted to "working landscapes", and over the last century those landscapes have been worked harder and harder. So much so that native grasslands have suffered the most intense impact by humans of any of North America's terrestrial ecosystems. This has unfortunately resulted in grassland birds experiencing a steeper decline than any other guild of birds, with some species seeing declines of more than 75% over the past fifty years.

With the majority of remaining grasslands in Virginia currently held in private hands and under agricultural use, the onus for grassland conservation has fallen largely on landowners and agricultural producers. Recognizing that balancing the needs of grassland bird conservation as well as the demands of working agricultural lands can be a complex conservation challenge, Smithsonian's Virginia Working Landscapes and the Piedmont Environmental Council came together to create a collaboration that could help create solutions—the Piedmont Grassland Bird Initiative (PGBI)—and brought on American Farmland Trust and Quail Forever as lead partners. The combined capacity and expertise of these organizations allows the initiative to offer landowners and producers a start to finish pathway for implementing a suite of win-win conservation practices tailored to their working landscapes.

PGBI Coordinator, Justin Proctor, explains the initiative's approach. "What we have created with these partnerships is the ability to conduct research on working lands that is locally relevant, addressing the needs of our community of landowners and producers, and then translate that research into tangible management practices. We are able to bridge what's referred to as the research-implementation gap, which means that we can take new information we learn and directly apply it to conservation action on farms." Indeed, Virginia Working Landscapes has spent more than a decade studying Virginia's plant, pollinator, and bird communities on working lands, trying to better understand the obstacles that our local plant and wildlife communities are facing. Through this work, VWL has helped grow a vibrant community of landowners, producers, researchers, and citizen scientists working together to restore biodiversity—and in turn, greater ecosystem services and landscape resiliency—to working lands in Virginia. Enjoy watching VWL's Grass Roots documentary to learn more.

The Piedmont Grassland Bird Initiative uses this knowledge to better raise awareness about the plight of grassland birds, and identify science-based Best Management Practices that can simultaneously benefit grassland birds, landscape sustainability, and farmers. "We are careful to make sure that we create a conservation plan for landowners and producers that can work for their production goals," says Justin. "The goal here is to find win-win compromises for grassland birds and agriculture, and the great news is that we are developing a handful of methods that work very well." One such success story is the initiative's new in-house financial incentives program that pays farmers to adopt bird-friendly practices into their operation. Eligible practices include either delayed Spring haying or summer pasture stockpiling—both of which protect grassland birds and their young during the vulnerable nesting season. PGBI's Co-coordinator, October Greenfield, oversees the incentives: "Delaying the first hay cutting in the Spring until at least early July is a game-changer for allowing the bulk of our grassland birds to fledge at least one successful clutch of young, which quickly changes a hayfield from a population sink to a population source," explains October. "And while a delayed cut may not work for every farmer, it can work for many of them, especially in cases where producers aren't targeting high protein hay." Meanwhile, summer pasture stockpiling involves rotating cattle off of select pastures in the early Spring to allow a stockpile of grass to grow and be available for grazing in the summer, when hot temperatures normally reduce available forage. "More and more evidence supports the positive impacts of rotational grazing—for cattle, soil health, and forage quality. Meanwhile, strategically stockpiling forage for the tough summer months means less dependency on needing to supplement cattle with hay. Excitingly, this practice works very well for grassland birds as well, as we are able to work with farmers to select stockpile fields that are conducive for their needs and also where nesting activity is most dense." In its first pilot year, the incentives program enrolled more than 1800 acres into these bird-friendly best management practices, and the program plans to expand in 2023.

Agriculture covers more than 8 million acres in Virginia, roughly a third of the entire landscape. Such an extensive presence makes working landscapes a dominant "habitat" in our state. Therefore, the opportunity to make this habitat more productive for a diversity of wildlife, including the suite of grassland birds that fully depend upon it, is one that we should seize.

For more information on Smithsonian's Virginia Working Landscapes and the Piedmont Grassland Bird Initiative, including their upcoming events, programming, and ways to get involved, don't hesitate to reach out:

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Red winged Blackbird fledglings in a delayed cut hayfield. Photo by Bernadette Ridgley