



Dave McClung

*Fields of native warm-season grasses planted at McClintic WMA provide food and excellent cover for various wildlife species.*

# warm-season *Grasses* a declining habitat in West Virginia

By Lee Haggerty

You may start by asking yourself, “What are warm-season grasses?” Well, that’s simple. They are a group of bunch grasses that do their active growing during the hot summer months and become dormant during the cool seasons. This varies greatly from cool-season grasses which do their active growing during the cool seasons of spring and fall but are dormant during the summer.

Warm-season grasses (WSGs) are native to West Virginia and were once the dominant grass species in much of the region. Many factors have led to their decline. One of the major problems has been the introduction of cool-season grasses (CSGs), such as fescue and orchard grass. Other factors include adverse farming practices, suburban development, and the suppression of fires.

WSGs are beneficial to numerous species of birds and small mammals. Also, many reptiles and insects use WSGs during some portion of their life cycle. They provide loafing, foraging, dusting, brood rearing and escape cover from predators. These grasslands also produce an abundance of seed, insects and small rodents that are eaten by a variety of wildlife such as song birds, quail, pheasant, turkey, foxes and hawks. These habitats provide a basis to a very complex food chain.



Photo by Mark Shock

Don’t get me wrong. Warm-season grasses do not create your typical food plot. Some people may even say they are not a food plot at all. This is somewhat true; however, it depends on what type of animal you are trying to feed. What they do provide is excellent cover which is often the missing component on most properties. Think about it. How much cover do you think an open wood lot or a field of CSGs, which has just been flattened by winter snow, provide a rabbit trying to escape a fox? You’ve got it – very little or none.

A big advantage warm-season grasses have over cold-season grasses is their growth form. Since they grow in clumps, space is left open on the ground between the clumps, if they are not planted too dense. This allows small mammals such as rabbits and birds, including turkey poults, the ability to be mobile in what most people would think of as a grown-up field. The main diet of a young turkey poult is insects. Poults need high levels of protein in their diets for proper growth and development. Warm-season grasslands provide this essential element needed by a young turkey. CSGs can have high numbers of insects as well, but due to restricted mobility of the poults in the thick cover, this food source may be unavailable to the young poults.



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Comparison of growth form of fescue, a cool-season grass (on left) and the warm-season switchgrass. Notice the “bunched” roots of the switchgrass which allow small mammals and birds to escape predators, such as the gray fox (top right).

Nesting habitat can also be greatly increased by planting WSGs. Every clump has the potential to be a nest site. Birds and small mammals will use the dead leaves from the previous year's growth to construct and line their nest. Many WSGs will remain standing all winter into the next spring. This is especially important to many species of field-nesting birds that nest above the ground in these standing stems. Some of these include Henslow's sparrow, field sparrow and indigo bunting. While a sparse stand will allow better mobility, it will not provide premium nesting habitat.

Warm-season grass fields provide excellent cover for larger animals as well. Deer will readily use these fields, especially during the spring fawning season. Anyone who has mowed a tall grass field in early summer knows how much a doe loves to hide her fawn in them. Farmers are especially aware of this. A fawn can be nearly impossible to see in a field of WSGs. Their tan fur blends in perfectly with the thatch from last year's growth. A fawn's ability to hide is essential to its survival. With coyote, black bear and bobcats living in the Mountain State, a fawn has to have both

good camouflage and an excellent place to hide to be able to survive.

The size of the grassland plays a role in which types of wildlife you will attract. Small grasslands less than five acres are used by deer and rabbits, whereas some species such as the bobolink and meadowlark need large grasslands of 20 acres or larger in size. More important than the actual size of the field is its proximity to other suitable habitat. You may plant a two-acre WSG field that provides quality habitat for rabbits, but if it is not in close proximity to some other early successional habitat you may not see an increase in the population. Predators are able to zero in on these small parcels of high quality habitat, and predation is likely to increase. If you are limited to the size of the WSG field you can plant, brush borders will greatly increase the quality of habitat on your property and will complement your WSG field. Brush borders provide additional cover and browse.

Many farmers who want to promote wildlife could also benefit from warm-season grasses without giving

## Six commonly planted native warm-season grasses in the mid-Atlantic region are:

- little bluestem
- big bluestem (*on left*)
- switchgrass (*on right*)
- indiagrass
- sideoats grama
- eastern gamagrass

Seeds for these grasses usually can't be bought locally but can be purchased from wildlife seed supply companies.



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*Warm-season grasses left standing over winter provide cover for wildlife even when weighed down by snow.*



Josh Allison

up cropland or pasture. This can happen in a variety of ways. One way would be to convert part of their pasture lands over to WSGs. Many WSGs are highly palatable and highly nutritious to cattle.

As we already know, WSGs grow in the hot summer months when CSGs are dormant. By doing this, CSG fields can be pastured in the spring. Then when it gets hot and cool-season grasses stop growing, cattle could be moved to WSG fields, and then rotated back to CSG pastures in the fall. This will increase pasture yields and allow farmers to pasture their cattle longer into the fall/winter without supplemental feeding. This will lower feed costs and operating costs. Another way for farmers to promote wildlife without sacrificing cropland would be to plant waterways, hillsides and less productive areas in WSGs. WSGs are adapted to grow on less productive soils and often do very well in areas where row crops are unable to grow.

Early successional habitats have been declining for years, especially warm-season grass fields. As a result, animals that benefit from these habitats have been on the decline. So often you hear people wanting to blame the disappearance of small game on predators, but predators have always been here. It's not hard to see what is missing when you go out on almost any farm or country side in West Virginia. We do not have the early successional habitats that we once had. Small farms littered the Mountain State in the early 1900s. But these farms were not managed like the farms of

today. Farms were not intensively managed to use every inch of the land for crop or pasture production and most farmers planted some type of small grain. Farm equipment either was not available or what was available was not as efficient as the equipment today. Consequently, more grain was left for wildlife.

Timbering practices have also changed. In the early 1900s nearly all of West Virginia was clear cut. This had many negative effects on the environment, but one thing it did do was provide an abundance of early successional timber habitat for years to come. The term "clear cut" to most people today is a bad word and they don't want any part of it. But with research and advancements in technology, clear cuts have proven to be environmentally friendly and can benefit many species of wildlife.

If we want to promote small game, maybe we should look to the past and ask ourselves, "What is different today as opposed to 75 years ago when small game flourished?" One prime part of the solution is for private landowners and public land managers to plant more fields of warm-season grasses.

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