

Warm Season Grasses

Why warm season grasses?

One of the habitat components lacking on many farms in Maryland is adequate nesting cover. Ideal nesting cover for many species consists of scattered clumps of herbaceous plants interspersed with bare soil or soil with only a light litter layer. Plant structure is more important than species. This structure can be difficult to create in Maryland and is typically difficult to maintain simply because our soils are so fertile.

There are two ways to create nesting cover: (1) fallow management of volunteer plants by disturbing the soil (root rake, discing, fire) and managing the resulting vegetation stand; and (2) planting species that tend toward clumpy growth.

In many regions of the United States, use of warm season grasses (WSG) has resulted in extraordinary rebounds of several upland game bird populations. Most warm season grasses are "bunch grasses" that grow in clumps, providing movement corridors that enable young wildlife to avoid predators and to forage for insects. Many cool season grasses, especially exotics such as fescue, grow too densely for wildlife to move and forage through. Studies have shown that both game birds and songbirds prefer nesting in stands of warm season grasses rather than typical orchard grass/alfalfa fields, and conversion of as little as five percent of hayfields to warm season grasses can increase bird populations ten fold.

Warm season grasses have many benefits for the farmer as well. WSG are more palatable and produce significantly higher weight gain in livestock than some popular cool season grasses. Furthermore, haying and grazing dates for WSG are later, allowing successful nesting before stands are disturbed.

Once established, WSG plantings are relatively easy to maintain in good nesting (and brood) cover. The importance of adequate nesting cover for upland birds cannot be overstated. ***Eight out of every 10 birds on a tract in the fall were raised somewhere nearby that summer.***

What are WSG?

DNR recommends a mixture of species selected for particular characteristics. A typical mix includes big bluestem, little bluestem and Indian grass as well as a variety of wildflower species. This mix provides the clumpy structure best suited for nesting as well as attracting insects for chick survival. Some late summer and fall foods are provided, another item important for chick survival.

How to establish WSG

WSG can be slow to establish and more expensive than cool season grasses. They can also be difficult to plant. In fact, most warm season grass species cannot be planted with a conventional drill. Because of the fluffy or chaffy nature of the seed, feeder tubes, seed cups and boots on conventional drills clog up almost immediately with most WSG seed. Switchgrass is the only exception; however, it is not the most desirable WSG species. WSG can be broadcast; however, each attempt almost invariably involves a certain amount of trial and error to find the best method!

Where to plant WSG

Plant WSG in areas near woody growth. Choose sites where the sprouting of woody growth in the WSG planting will be minimal. Block plantings of two or more acres are ideal; however, planting 50-foot wide strips along field edges is good. These strips also provide a number of soil conservation and water quality benefits that may meet the requirements of certain agricultural incentive programs. Establishing an unsprayed row crop food plot nearby helps answer the need for brood habitat.

A real concern prior to the establishment of any "new" plant is whether it will invade other cropland. Multi-flora rose is a good reminder of why we must be careful. Biologists are confident that native WSGs will not be a problem. Because they are slow to become established, any ground treated, plowed or sprayed on a yearly basis should remain free of WSG.

When to plant WSG

Generally, the soils should be 55 degrees or warmer and soil moisture should be adequate. DNR recommends spring plantings (May/early June) over fall.

In conclusion, DNR believes the benefits of established stands of WSG far outweigh the associated difficulties. Looking across colorful fields of grass and wildflowers with crowing pheasants, whistling quail or singing sparrows will make you feel as if you had stepped back to the time of covered wagons and grazing bison.

For more information, contact the Maryland Department of Natural Resources Wildlife and Heritage Service Office near you.

*Photograph by Ann Wilmer
Drawings by W.H. Henry*