Summer-Planted Sorghum-Sudangrass Can Improve Soil Quality, Fight Weeds, and Provide Habitat for Birds in Winter.



Winter-killed Sorghum-Sudangrass Can Provide Habitat for Birds and Other Wildlife

Why Sorghum-Sudangrass?

This heat-loving fast-growing annual grass can be an effective cover crop to scavenge excess nutrients in the soil, suppress weeds, amend soil compaction, and sequester soil carbon. It requires a minimum soil temperature of 65 degrees to germinate, and should be drilled or broadcast at 15-17 lbs/acre, producing 4-8,000 lbs. of dry matter per acre per year. It does not tolerate shading or flooding (USDA factsheet 2024).

Benefits of Delayed Mowing

Although many farmers elect to terminate this cover crop during the same year of planting, research has shown that leaving the standing dry biomass until the end of winter can provide valuable habitat for winter birds that use the dense stands as shelter. Non-sterile cultivars of sorghum-sudangrass produce seeds that can attract hundreds of birds per acre throughout the winter – although some care must be taken to ensure that sorghum-sudangrass seeds do not present a source of weeds for the following crop—particularly if followed by field or sweet corn since both sudangrass and corn seedlings look very similar. Sterile cultivars are also available that produce no or fewer seedheads. Birds primarily use these stands as cover from wind and as evening roosting sites. Close mowing in late winter or early spring is the most effective means of terminating this cover crop prior to planting via no-till or conventional means.

Which Birds Use Winter Stands of Sorghum-Sudangrass?

Native sparrows primarily use this standing cover in winter in the Hudson Valley, including Song Sparrow, American Tree Sparrow, White-throated Sparrow, White-crowned Sparrow, Dark-eyed Junco, and the regionally declining Savannah Sparrow. Other songbirds that have been observed using this cover are Black-capped Chickadee, Swamp Sparrow, American Goldfinch, Northern Cardinal, and Wild Turkey. Many of these species are not considered agricultural pests and will in fact switch their diet to insects during the planting and harvest seasons.



Savannah Sparrow, a threatened species



LeConte's Sparrow, a rare visitor. Photo by Bob Miller

A Win-Win for Birds and Farmers

Farms and wildlife often compete for the same land and resources and it's rare to find examples when land management can provide a measurable benefit to nature at little to no cost to the farmer. Winter plantings of sorghum-sudangrass have been demonstrated to provide quality habitat to many native birds without significantly interfering with the profitability of those farms studied. Moreover, many indices have shown that birds wintering in sorghum-sudangrass are generally as healthy as those in wilder habitats, as measured by weight and fat content. Given the cheap availability of sorghum-sudangrass in many areas and the lack of specialized equipment to grow it, delaying the mowing of summer-planted sorghum-sudangrass until the following spring may be an important tool for expanding biodiversity on Northeastern farms of all backgrounds.

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