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41. © Field establishment of little bluestem and prairie dropseed under managed conditions. Fedewa, C. A. and Stewart, J. R. *Native Plants Journal* 12(2):111-117. 2011.



Figure 1. *Schizachyrium scoparium* (little bluestem) plant.



Figure 2. Field plots on 12 June 2007 at the University of Illinois Cruse Tract Farm, Champaign, Illinois.



Figure 3. Field plots on 10 July 2007 at the University of Illinois Cruse Tract Farm, Champaign, Illinois.

Field establishment of little bluestem and prairie dropseed under managed conditions

Chad A Fedewa and J Ryan Stewart

ABSTRACT

Schizachyrium scoparium (Michx.) Nash (Poaceae) (little bluestem) and *Sporobolus heterolepis* (A. Gray) A. Gray (Poaceae) (prairie dropseed) are ecologically important warm-season grass species for restoration of degraded Midwestern prairie habitats. Information about methods to establish these grass species is limited. Therefore, a combination of treatments were tested in a field setting over 2 y to enhance the success of these 2 species under field-production conditions and for prairie restorations. Treatments consisted of mowing, 3 herbicide rates, and 3 seeding rates. Imazapic ((±)- 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-methyl-3-pyridinecarboxylic acid]) herbicide was applied at rates of 0, 0.14, and 0.28 kg/ha. Seeding rates were 4.5, 9.0, and 13.5 kg/ha (4.0, 8.0, and 12.0 lb/ac) for *S. scoparium* and 1.9, 4.8, and 7.6 kg/ha (1.7, 4.3, and 6.8 lb/ac) for *S. heterolepis*. After 2 growing seasons, mowing did not affect *S. scoparium* density or percent cover. Herbicide-treated plots had greater density and percent cover of *S. scoparium* than did untreated plots. The 13.5 kg/ha seeding rate for *S. scoparium* was associated with greater grass density and percent cover than the 2 lower seeding rates. *Sporobolus heterolepis* was detected in only 4 out of 164 sampling quadrats after 2 growing seasons. Emergence was too poor for data collection or testing of the hypothesis. Although mowing did not appear to influence seedling establishment of *S. scoparium*, herbicide application and generous seeding rates increased grass density and percent cover.

Fedewa CA, Stewart JR. 2011. Field establishment of little bluestem and prairie dropseed under managed conditions. *Native Plants Journal* 12(2):111–117.

KEY WORDS

Schizachyrium, *Sporobolus*, Poaceae, seeding rate, Midwest, prairie

NOMENCLATURE

USDA NRCS (2010)

Photos by Chad A Fedewa