

## Warm-Season Grass Management Trials in Maryland

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In Maryland, thousands of acres have been planted to native warm-season grasses with native wildflowers to protect water quality and provide wildlife habitat. However, without proper management, the wildflower component of the planting can diminish over time. To improve and maintain stand diversity, an appropriate selection of wildflower species and compatible management treatments are required. Trials are being conducted at the National Plant Materials Center in Beltsville, Maryland, in cooperation with Maryland NRCS to determine the optimal methods for renovating warm-season grass stands to increase diversity and improve wildlife habitat. Objectives include evaluating vegetative response to disturbance and effectiveness of over-seeding native wildflower mixes. Treatments include mowing and disking timing (late summer; late fall; early spring), disking intensity (0%; 25%; 50%; 100%), and wildflower mix seeding rates (none; ½ lb PLS/acre; ½ lb PLS/acre + 20 lb/acre small grain; 4 lb PLS/acre wildflower mix). A ‘dry’ wildflower mix is being tested on a moderately dense stand of predominantly *Sorghastrum nutans* in well-drained soil. A ‘mesic’ wildflower mix is being tested on a dense stand of predominantly *Panicum virgatum* in moderately well-drained soil. Vegetation percent cover and composition have been evaluated for two years and will continue for a third, after which mowing and disking will be reapplied to evaluate wildflower response without re-seeding. Preliminary results indicate fall disking is more effective in reducing warm-season grass density resulting in larger better established wildflowers, while spring disking appears ineffective at reducing grass density resulting in greatly reduced wildflower size while having comparable or better germination. Results of these trials will be transferred into technical documents to support conservation planning for USDA Farm Bill programs.

Keywords: native warm-season grasses, wildlife, diversity, wildflowers, pollinators, Maryland