



# Native Plants and Fertilization Help to Improve Sites and Stabilize Gullies on the Sumter National Forest



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**Revegetation** – many of the native grasses were lost in the piedmont of South Carolina due to farming and severe erosion. Native plants are resilient to normal disturbance regimes and once established, need limited maintenance. In 1996, a multi-agency cost share agreement led by the USFS began to address issues to increase use of native grasses in the stabilization and improvement of barren, eroded and low site areas including gullies. Primary cooperators include SC Native Plant Society, USDA-NRCS Plant Materials Center, and Clemson University. Primary activities have been seed collection, tests, sowing under field and lab conditions, and growing local native plants for harvest in production fields.

**The benefits** – converting eroding barrens and gullies to productive landscapes restores many of the physical and biological processes so the land can produce desired resource benefits. Treatments result in improved soil, water, wildlife, fisheries, visual, recreation, and other resources. Native plants help provide biodiversity and beauty, with resilience to disturbance and poor site conditions. Fertilization speeds vegetative recovery and improves soil productivity and plant health.



*Andropogon scoparius* (Little blue stem)  
*Andropogon ternarius* (Split beard blue stem)  
*Panicum virgatum* (Switchgrass)  
*Desmodium* spp. (Beggartweed)

*Andropogon* (Bushy beard blue stem)  
*Tridens flavus* (Purpletop)  
*Sorghastrum* spp. (Indiangrass)  
*Chamaecrista fasciculata* (Partridge pea)



Site recovery from land reshaping and other treatments help to control erosion, improve vegetation and soil recovery. Fertilization speeds the process of site recovery. In declining stands on poor sites (i.e.,  $SI < 70$ ), growth and health can be extended for many years with fertilization. Otherwise these stands become more susceptible to insects, disease and mortality after age 40.

