

Prescription for Rescue of Native Warm-Season Grass Plantings in Pasture/Hay Land Settings.



This protocol is to aid landowners who have attempted to convert hay, pasture, or other acres containing introduced cool-season grasses (CSG: fescue, orchard grass, Kentucky bluegrass, perennial rye, timothy, etc.) to native warm-season grasses (NWSG), only to have the CSG return and cause a failure of the NWSG. This plan assumes that a quality job of seeding the NWSG was done originally, and that viable NWSG is present and waiting for an opportunity to thrive. Programs that may exhibit the type of setting are CP29, CP30 practices within CRP, Pasture to Prairie practices with Ohio Division of Wildlife, or other habitat restoration programs with US Fish and Wildlife, Pheasants Forever, or others. If you are considering this plan as part of your CRP acres, please consult with the NRCS District Conservationist in your county. Though this plan is considered part of the establishment process for the NWSG stand, you may need to consult with NRCS/FSA to ensure compliance with your conservation plan.

NWSG seeds will often be viable in a dormant state for several years after planting, and will often be able to form a good stand if competition from CSG and undesirable broadleaves is eliminated. The goal of this plan is to reduce or eliminate CSG competition using chemical and physical tools, without the need for additional seeding of NWSG. However, if it becomes apparent that the NWSG are insufficient in number or vigor to establish well after control of the CSG, reseeding/inter-seeding may be necessary to establish a good stand that would be deemed "acceptable." Note that the following plan should favor big bluestem, little bluestem, Indian grass, and sideoats grama. Note that switch grass will be negatively impacted by the herbicide, and replanting of switch grass should be considered if suitable and necessary to the site.

YEAR 1:

1. August/September: Mow the acres of CSG to be treated at least twice during these months, stopping in late September. This mowing will accomplish the following:

- a. Reduce broadleaves or trees that may be growing within the area;
- b. Weaken the grasses due to stress from mowing, heat, and drought.
- c. Prepare the CSG for herbicide application. Grasses should achieve 10 to 12 inches of regrowth before Step 2 (herbicide application).

2. Late October/Early November: After NWSG has gone dormant. Apply glyphosate at the rate 2 quarts to the acre. Use higher rates for heavy/dense stands of CSG. Use an adjuvant, and use ammonium sulfate or other nitrogen fertilizer to improve uptake. Spraying should take place as late in the fall as possible after a light frost but before a killing frost has occurred. Tall fescue often remains active into November and even early December in some years. However, it is probably safer to spray in mid to late October or very early November. A sunny, warm day after a cold night with a light frost is the ideal setting for application of herbicide to CSG. Read and follow herbicide label guidelines before use.

YEAR 2:

3. March/April: If possible, burn the treated acres using a prescribed burn prior to green up of CSG. For CRP acres, a certified burn manager must be used and a burn plan submitted. Use caution when burning and prepare good firebreaks around the burn. Using a contractor should be considered. Burning will further weaken the CSG root systems and will favor the NWSG.



5. March/April/May: Round 2 of herbicide application. Spray

imazapic, using mentholated seed oil or nonionic surfactant as adjuvant. If a prescribed burn was performed, this spray should be applied as soon after burn as possible, but wait until after a decent rain has washed down the soot and exposed bare ground. If no burning was done, spray should be applied before CSG has begun vigorous growth. This may vary based on CSG type and location.

Tall fescue may need to be sprayed in late March, while others could possibly wait. If grasses are growing vigorously, the effect of the imazapic will be reduced. Try to spray before grasses green up and begin growing vigorously. Read and follow herbicide label guidelines before use.

6. Summer: Inspect treated area throughout the summer to check on emergence of NWSG and also possible return of CSG. Identification guides are available through NRCS, your SWCD office, Pheasants Forever, and other sources to help you identify NWSG seedlings and plants. If small areas of CSG are found, spot spray with imazapic at a rate of 2 ounces per gallon, using nonionic surfactant as an adjuvant if NWSG seedlings are small and MSO as an adjuvant if NWSG seedlings are bigger and vigorous. Nitrogen fertilizer may help with uptake. Avoid spraying CSG in the boot stage or during summer dormancy, as herbicide will have little effect.

7. Late Summer/Fall: If treated acres have responded well after the first year of treatment (i.e. good NWSG emergence and few remaining CSG), no further action may be necessary other than spot spraying and broadleaf weed control. If CSG is still prevalent over much of the area, repeat the mowing and spraying regimen used in Year 1.



8. Winter: If additional seeding or inter-seeding or NWSG species, especially Switch grass, or forbs (legumes, wildflowers) is needed, seeding during the winter could be accomplished via broadcasting or no-till drill if conditions permit.

9. Continued monitoring: Continue to watch treated acres for reinvasion of CSG, and spot spray as needed.

