

Managing Native Grass Forages

Dr. Patrick Keyser, Professor and Director, Center for Native Grasslands Management

Advanced Competition Control, a Key to Successful Native Grass Establishment

Successful establishment of native warm-season grasses (NWSG) requires good competition control. As is the case with any perennial forage establishment, your chances of success are greatly increased by dealing with competing species AHEAD of time. Waiting to control perennial warm- and cool-season competitors just a few weeks ahead of planting is never a good idea and can make establishment much more difficult – and less likely to be successful - than it needs to be.

Warm-season perennials such as johnsongrass, dallisgrass, and broomsedge are all much more easily controlled during August and September than during spring. During late summer, control is more effective and can be accomplished with lower herbicide rates. The same thing is true for cool-season perennial competitors such as tall fescue, orchardgrass, plantains, curly dock – and biennial thistles. In the case of these cool-season species though, the ideal time for control is a bit later in the fall – October and early November.

Another important warm-season perennial competitor is common/coastal bermudagrass. The most effective control for bermudagrass is to treat with a high rate of glyphosate (4 – 5 qts/ac) in late summer (August). As is the case with the other warm-season perennials, spring treatment has very poor success. Failure to achieve complete control of bermudagrass though, can be far more detrimental to successful NWSG establishment. This is because its growth habit prohibits good seed placement when drilling, suppresses germination, and presents severe competition for young seedlings. Furthermore, controlling bermudagrass in established NWSG is extremely difficult.

Another advantage of treating perennials ahead of time is that you leave yourself the opportunity to conduct follow-up treatments. By treating warm-season species in August, skips, new seedlings, or regrowth can all be treated again prior to a frost if needed. In the case of cool-season perennials, follow-up treatments can be applied during late March/April. Also, perennial vegetation suppresses the growth of other weeds. Once the perennials have been controlled, those other weeds become quite abundant. Advanced removal of perennials creates the opportunity to address this flush of new weeds in a timely manner, before they can overtop a new NWSG planting.

While it is less important to control annual weeds ahead of time, it is still beneficial to deal with them early. Most cool-season annuals will be controlled with the final seedbed prep prior to planting. Warm-season annuals, on the other hand, can be present severe competition to NWSG seedlings. The most effective way to deal with them is through 1) limiting seeding the prior year, which may be accomplished partially when you control summer perennials, or 2) delaying planting until after killing the initial flush of summer annuals.

Dealing with weed competition ahead of time is really just agronomy 101 – things that should be done prior to establishing any perennial grass. And it pays huge dividends for successful establishment of NWSG forages.