

MANAGING NATIVE GRASSES FOR ESTABLISHMENT

Planning For A Good Stand Or Just Luck

By Paul D. Ohlenbusch

Managing to establish a new native grass stand, with the first season as a critical time for getting the seedlings off to a good start, is important. Competition for light and water are the critical points.

Full establishment of the stand will take a minimum of two years and can be up to five years in drier areas. Full establishment means that the grass root systems are deeply rooted, tillering or other vegetative reproduction has occurred, and seed production has occurred. The following is a review of the management options for the seeding year.

- Grazing should be deferred during the first and possibly the second growing season depending on stand establishment. Short periods of grazing (1-3 days) for weed control early in the first growing season are an option. Graze weeds when they are small and palatable to the animals.

- Haying the year of seeding can be beneficial if there is enough forage produced. Cut the hay at a four-inch height in late June to mid-July to ensure the plants have enough leaves to readily re-grow.

- Weed control is necessary in new seedings to reduce competition for moisture, nutrients and sunlight. Low-growing, dense shade like that created by low-growing annual grasses or broadleaf plants is of greatest concern. Annual grasses are the most common. Tall, open stands of annual broadleaf weeds such as sunflower or mare's tail can aid in grass establishment by providing shade and lowering soil temperatures.

- Pre-plant or pre-emerge herbicides are labeled for some species and situations. These should be used according to label instructions to minimize the weed control needs. Consult current herbicide recommendations for products, rates and timing.

- Mowing, while expensive, can be effective for annual weed control when done at the right time. Mowing must be done before the weedy plants produce seed.

- Following the seeding year, evaluating the growth response of both the seeded grasses and other species is required, particularly the first half of the growing season. Evaluations should begin 2-3 weeks before the average

CONTINUED ON PAGE 106

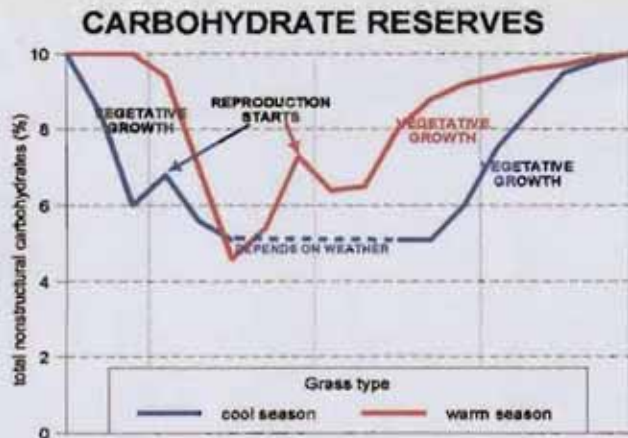


FIGURE 1

FROM PAGE 104

last frost and repeated at least every other week. Early detection of problems allows for better decision-making.

MANAGEMENT OPTIONS FOR FULL ESTABLISHMENT

The management options to enhance the full establishment of a native grass seeding are limited but can be integrated into the current management programs with proper planning. The productivity of the native grass stand will be determined by how the stand is managed for the first 3-5 years.

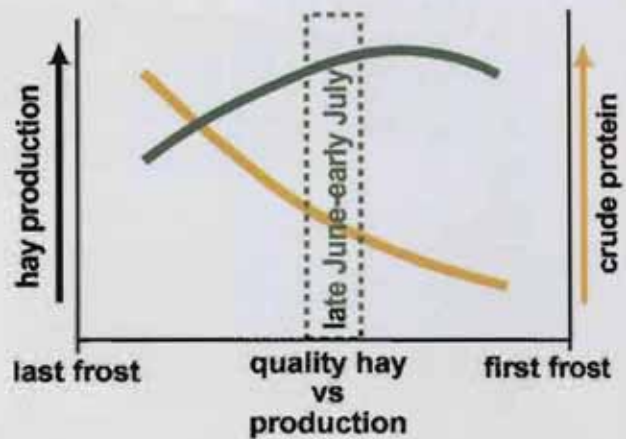
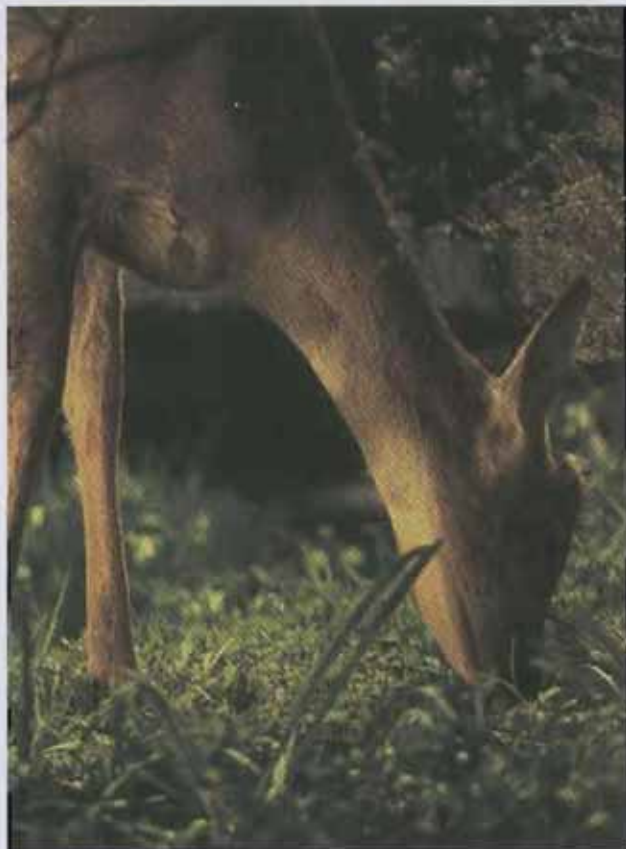


FIGURE 2

GRAZING

Although grazing is the most difficult to manage, it has the highest potential for enhancing the stand. Grazing a new stand must be done with sound grazing management principles and practices. These include proper season of use, proper stocking rates and good grazing distribution. Good management of a seeded grass stand is a must with the investment of time, money and labor involved in establishing good grass cover.

Grazing the first 2-3 years should be done early in the season when weed growth is young and palatable. The grass should never be grazed at less than 3-4 inches of leaf length (not stubble height) to ensure good growth over the growing season. Rotating the animals back for short periods later in the season is possible, but the grazing should leave at least half the leaf length.

Ensuring the future growth of the grasses is the most important goal. Understanding stored food reserves is the key factor in using grazing to enhance the grass stand (Figure 1). (See the July/August 2007 article "Enjoying and Listening to Nature While Managing" for more information.)

HAYING

Haying is the simplest management practice, particularly when weeds are not a major concern. It should be done in late June to early July for the best combination of dry matter and nutritive value. A minimum cutting height of four inches is recommended to ensure the plants have adequate opportunity for re-growth and building food reserves for the following season. Remove the bales as quickly as possible to prevent weed problems due to suppressing the grasses and favoring weed growth.

The late June to early July haying period will provide the best combination of production and nutritional quality as measured by the crude protein content (Figure 2). After

CONTINUED ON PAGE 108

MANAGEMENT NOTES FOR MARCH - MAY



Monitor water sources to ensure availability. Develop options if sources appear to be less than optimal.

Evaluate the status of grazing for the 2009 year. Evaluate the status of stubble height of desirable species as spring approaches. If excessive, reduce 2009 stocking rates to compensate.

Evaluate rainfall history and current soil moisture status. If soil moisture remains short and weather is still dry, plant growth may be slow and/or limited for 2009.

Review grazing and economic management plans for 2009 and adjust the 2009 and five-year management plan.

Evaluate broadleaf and woody plant control in 2009. Update plans for application to ensure better application timing.

Prepare for prescribed burns if growth and burning conditions are proper. If soil moisture is short, and weather is dry, postpone burn until conditions are desirable.

Seed areas for 2009. Manage weed control to improve seedling establishment.

FROM PAGE 106

mid-July, the digestibility of the hay declines. Harvested as recommended will often provide a reasonable supplemental forage (4-6 percent crude protein) for non-gestating females.

FIRE

Prescribed burning can be done as early as one growing season after seeding. The important weather conditions for the burn to be successful are good soil moisture, enough fuel to carry a fire and weather conditions to conduct a successful burn (proper wind direction and speed, temperature, humidity, and enough manpower and equipment). Burning without adequate soil moisture can potentially reduce the grass stand and promote broadleaf and woody species.

The burn should be timed for the period that the seeded grasses are beginning new leaf growth (less than 1-1/2 inches). Burning at this stage can stimulate tillering, reduce excess mulch and increases forage quality. In addition, many annual and perennial forbs and woody species are reduced for the growing season.

HERBICIDES

Herbicides can be used, particularly for broadleaf weeds. Use during the first growing season should be limited to pre-emerge materials.

In the following growing seasons, herbicides must be timed to the most susceptible growth stage for the target species and to ensure that the seeded grasses will not be damaged. Application should be done with soil moisture that will ensure growth of both the undesirable species and the grasses. Applying herbicides during dry periods is usually less effective, may damage the seeded grasses and a waste of money.

Pesticides must be federally and state registered and applied in accordance with authorized registered uses, directions and cautions on the label, and all other federal and state policies and requirements.

Establishing native grass stands is more than planting some expensive seed and letting it grow. The procedure outlined in this and the preceding article are designed to create conditions that enhance the seedling's ability to be competitive, establish a root system, initiate vegetative reproduction (tillers, rhizomes) and even produce seed stalks. Above all, a careful management plan is required to enhance the stand and increase the monetary investment. *!!*

Next time a review of big bluestem and Indiangrass from the Tallgrass Prairie.

Editor's Note: Paul D. Ohlenbusch is a grazingland and Vegetation Management Consultant (www.grassbydesign.com). Additional readings and previous articles are available at www.grassbydesign.com/tda.