Consider Frost Seeding or Interseeding Pastures This Spring

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Abstract
Producers wanting to add to or improve the forage species in their existing pastures should typically consider using either the frost seeding method in February and early March, or interseeding later in the spring months. This has been an unusual end to the winter, so as soon as the snow melts, frost seeding can begin.

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**Frost seeding**

Frost seeding involves spreading forage seed on existing pastures during the late winter or very early spring while the ground is still frozen. Freeze-thaw cycles then provide shallow coverage of the seed, which help shield from early spring rains. Frost seeding is the easiest method to add new forage legumes or grasses to pastures, and is likely the least expensive method, as well. To increase this method’s success, spread seed on the thinnest pasture sod areas first and on areas where bare soil has been exposed due to heavy grazing or disturbance.

One common misconception about frost seeding is that spreading the seed on top of snow works best. The goal of frost seeding is to get seed on bare soil. This is more effective and more safely done without snow cover. Red clover has been the Iowa forage species of choice for frost seeding. Other legumes, such as white clover and birdsfoot trefoil, also can be frost seeded but with less success than red clover. In general, frost seeding does not work as well with grasses.

A few well researched steps will improve the success of frost seeding. Those steps, seeding rates and guidelines are available in the ISU Extension and Outreach publication *Improving Pasture by Frost Seeding*. 
Interseeding

Interseeding offers an opportunity for improving pasture productivity too. Interseeding involves using a no-till drill to aid in the incorporation of a legume or a more productive grass into an existing pasture sod. Interseeding is normally done from mid-March through early May, when soil moisture and temperature are more suitable for rapid seedling establishment.

Interseeding can be accomplished with relatively few field operations. Opening of the grass sod, shallow seed placement, and seed coverage are required. A number of drills are available that can be used in sod-seeding efforts. Drills vary in their effectiveness based on ability to penetrate sod, provide uniform seed depth and metering, and ability to cover furrow. Equipment limitations for sod seeding implements sometimes are overcome by operator experience and home shop modifications.

Legumes interseeded into grass sod should increase pasture yield, improve forage quality, and eliminate or minimize need for nitrogen fertilizer. Clovers, alfalfa, birdsfoot trefoil have been successfully interseeded. The more efficient seed placement provided by a no-till drill allows many of our more productive perennial forage grasses to also be successfully established by interseeding. Thin, low-producing, grass sod might best be improved by interseeding a grass legume mixture.
A seeding delay into late spring to improve growing conditions often also leads to a greater competition from the existing grass sod. Close grazing in the fall or spring, ahead of interseeding, will help to reduce sod competition. Contact herbicides are sometimes also used to temporarily further reduce competition from plants present in the stand. Use only labeled herbicides for sod suppression, and follow label instructions.

Interseeding success depends a lot on paying attention to details, timeliness, careful management of sod completion, controlling seeding depth to no deeper than one-fourth to one-half inch, and a little bit of luck with weather.

Interseeding research has been conducted in many parts of the U.S. and around the world. It shouldn't come as a surprise that the conclusions from these efforts all point to several very important issues that must be met for successful interseedings. See ISU Extension and Outreach publication *Interseeding and No-Till Pasture Renovation* for more suggested seeding rates and guidelines.

For more information, please contact your local Iowa State University Extension and Outreach field agronomist.

**Category:** Crop Production

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**Crop:**

Biomass and Forage

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