Late-summer seeding of forage crops
by Stephen K. Barnhart, Department of Agronomy

Late summer can be an excellent time to establish forage crops, provided there is sufficient moisture for germination and good seedling growth. It is also a good time to seed in bare or thin spots in forage stands established this spring. The following steps will improve the chances for successful forage stand establishment in late summer.

1. Plan-ahead steps:
   - Test soils and apply needed, corrective lime and/or fertilizer during previous cropping seasons; corrective fertilizer can be incorporated during forage seedbed preparation.
   - Begin to control problem perennial weeds a year or more ahead of seeding.
   - Be careful with herbicide selection in crops grown in the field before the forage seeding because some may have residual soil activity and will harm new forage seedings if proper waiting periods are not observed. Read the labels for details.

2. This is late-summer seeding, not fall seeding!
Seed as early as possible. Seedlings require 6 to 8 weeks of growth after emergence to have adequate vigor to survive the winter. Seed by August 10 in the northern third of Iowa, by August 20 in central parts of the state, and by September 1 in southern Iowa. Forage legumes, such as red clover and alfalfa, can be seeded up to the dates listed above if moisture is present. Slow establishing species like birdsfoot trefoil or reed canarygrass should be planted in early August.

Most forage grasses, such as Kentucky bluegrass, smooth bromegrass, orchardgrass, tall fescue, and timothy, can be seeded up to 2 weeks later than the dates listed above. Don’t plant warm-season prairie grasses as a late-summer seeding. Keep in mind that the above dates assume sufficient moisture to establish the crop.
Planting later than the dates mentioned above is sometimes successful depending on fall and winter weather patterns, but there is increased risk of failure and reduced yield potential for the stand as planting is delayed. A general rule for alfalfa is to have 6–8” of growth before a killing frost.

3. **Prepare a firm seedbed if using tillage.** Loose seedbeds dry out very quickly. Deep tillage should be completed several weeks ahead of seeding so rains can settle the soil before final seedbed preparation. A cultipacker or roller is an excellent last-pass tillage tool. The soil should be firm enough for a footprint to sink no deeper than \( \frac{3}{8} \) to \( \frac{1}{2} \) inch.

4. **Late-summer pasture interseeding and no-till forage seeding is an excellent way to conserve moisture,** provided weeds are controlled prior to seeding. Remove all straw after small grain harvest. Any remaining stubble should either be left standing, or clipped and removed. Do not leave clipped stubble in fields as it forms a dense mat that prevents good emergence.

5. **Don’t plant alfalfa immediately after older established alfalfa.** Autotoxic compounds are released by old alfalfa plants that inhibit growth and productivity of new alfalfa seedlings. It is best to rotate to another crop for a year or more before going back to alfalfa; however, thickening up seedings within 12 to 15 months of the original planting date is considered to be a low-risk practice because autotoxicity concerns are greatest with older alfalfa fields.

6. **Seed when soil moisture is adequate or a good rain system is in the forecast.** There is a higher risk of seedling failure when planting seeds into dry soil, as there may be just enough moisture to germinate the seed but not enough for seedling establishment.

7. **Plant seed shallow and in firm contact with the soil.** Carefully check seeding depth, especially when no-tilling. Drills with press wheels usually provide the greatest success in the summer. Broadcasting seed on the surface without good soil coverage and without firm packing is usually a recipe for failure in the summer.

8. **Use high quality seed of known varieties.** Cheap seed often results in big disappointments and shorter stand life. Make sure legume seed has fresh inoculum of the proper rhizobium.

9. **Do not harvest new summer seedings this fall.**

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