

Less Weed Pressure During Establishment and More Hay Next Year

Dr. Don Miller
Director of Product Development
Alforex Seeds

At the start of 2021 western hay stocks were down significantly with Kansas hay stocks reported to be 36% lower than last year. The USDA also estimated that in 2021 Kansas would see a 1% reduction in hay acres, or 40,000 less acres. These factors combined with the ongoing drought could have a significant effect on 2022 hay stocks and prices.

Producers that want to be in position to fully capitalize on the potential higher alfalfa hay prices may want to consider a fall planting of alfalfa. The advantage of this planting is the potential of having hay sooner in the spring when prices are high, and more to sell if prices do rise significantly in the coming year.

If adequate rainfall or irrigation is available for a fall planting, alfalfa producers may want to consider planting in the fall versus waiting till next spring. There are several advantages to consider over a spring planting that can contribute to reduced costs, higher yields and potentially higher profits in today's market. The two main factors are:

- The potential for more cuts and yield next year.
- Less establishment issues due to weeds.

The following link lists some of the main advantages of planting alfalfa this fall versus waiting till next spring.

Yield Advantage of Fall Planting

Fall seedings have the advantage of a longer establishment period and therefore are capable of full production the coming growing season. When you compare this additional tonnage to that of a spring seeding, the additional revenue can be significant.

- Yields the first year from spring seeded alfalfa are generally 40-50% less than yields from alfalfa planted in the fall.
- The longer establishment period can provide enough root reserves for an early strong first cut in 2022. If hay stocks are short coming out of the winter, having hay early in the season when prices are high could be very profitable. Also the forage quality of a first cut is generally higher adding to the potential value.
- Alfalfa planted this fall can potentially produce one or two extra cuttings next year.

Less Weed Stand Establishment Issues in the Fall

One of the main reasons why fall seedings can sometimes be more successful than spring seedings is because there is generally less weed pressure. With less weeds, the alfalfa seedlings aren't competing as much for water and soil nutrients. The following list are a few reasons why weed pressure is often less in fall plantings:

- Weeds that might be present can be controlled prior to establishment by either a herbicide application or tillage.
- Most broadleaf weeds normally emerge in the spring, and annual weeds that do germinate in the fall will be killed by frost or won't survive the winter.
- Early fall seeding in warmer soils allow alfalfa seedlings to germinate, grow and develop a crop canopy at a much faster rate to get a jump start ahead of the weeds.

Additional Fall Planting Advantages

- Because of the warmer, drier soil at this time of year, diseases such as *Pythium*, *Phytophthora* root rot, and *Aphanomyces* root rot are much less of a concern
- Seedling diseases are more likely during the spring when soils are normally cooler and wetter.
- Less insect problems during establishment period. Insect build-ups may be reduced by the approaching cold weather.
- Because the alfalfa stand is established in the fall, it is able to take advantage of early spring soil moisture
- You may avoid planting delays associated with wet spring weather, especially on heavy clay soils. Planting conditions on these soil types is more favorable in late summer plantings. Drier fall soils reduce the risk of soil compaction during seedbed preparation and planting.

Fall Planting Date

If you do decide to try a fall planting of alfalfa, be aware that alfalfa seedlings require a minimum growth and establishment period of 6-8 weeks before a killing frost (4 hrs. @ 26° F). Optimal planting dates vary due to each regions historic killing frost date, but the following are some suggested planting dates for Kansas

- Northwest Kansas – August 10–15th
- Southeast Kansas – Sept 15–30th

Cutting Corners During Alfalfa Stand Establishment Doesn't Pay!

Don Miller, PhD.

Director of Product Development

Alforex Seeds

In today's difficult economic times, farmers are continually analyzing their farming operations to see where they can reduce costs. However, caution should be applied in two main areas when identifying cost savings when planting alfalfa. First, any cost saving decision that negatively impacts stand establishment may end up costing the producer significantly more over time than the expected savings. Unlike annual crops such as corn or soybeans, an alfalfa stand lasts longer and an **establishment shortcoming can limit a field's potential for the next 3-5 years**. Second, performance of an alfalfa stand is also highly influenced by the variety planted. It requires more attention than a quick seed cost per bag decision.

Cost Savings Versus Cutting Corners?

The following are some agronomic and management practices for the upper Midwest. These practices have proven to be effective in establishing a productive and profitable alfalfa stand.

Field Preparation

Field Selection: Alfalfa can be grown in a wide range of soil types, but the following field criteria should be considered prior to planting. Fields with good surface and internal drainage are generally the most productive. Check for planting restrictions from prior crop herbicide applications.

Soil Test: At least six months prior to planting a soil test should be conducted. Soil Tests can identify fertility and/or soil related factors that need to be addressed. The most productive fields are those with good fertility and a pH in the range of 6.5-7.5. Soil pH below 6 or above 8.4 will need to be corrected before planting alfalfa. Remember, dollars spent correcting pH before establishing alfalfa can be your highest cropping ROI on the farm.

Fertility: For many upper Midwest alfalfa growers, alfalfa follows corn where liquid manure is a primary N source, plus delivering residual levels of K for the coming alfalfa crop. A valuable source of nutrients, but stay within your farm nutrient plan.

Weed Control: The best weed control measure for a new alfalfa planting is making sure you start out with a thick, dense stand. Several good pre-plant and post herbicides, including glyphosate, are available for alfalfa. These herbicides can be beneficial in eliminating weed competition during stand establishment.

Seedbed Preparation: The importance of preparing a good seedbed before planting alfalfa cannot be over emphasized. A seedbed needs to be firm and not cloddy or powdery. A firm seedbed enhances the ability to place the seed at the proper seed depth and provides good seed to soil contact for optimal germination. A proper seed bed not only impacts germination, but also the speed of haymaking operations after establishment. Additionally, a rough field can impact ash content as well.

Seed Selection

Variety Selection: The selection of an inferior alfalfa variety or blend, based solely on price per bag, should be avoided. While a \$50 per acre difference in up-front seed cost is tempting, this difference is usually recouped quickly via additional yield and/or forage quality from the top varieties. The new high yielding varieties with Hi-Gest® and HarvXtra® technologies are now available. These varieties have significant improvements in fiber digestibility, harvest flexibility and animal performance. Consult with your seed dealer for his advice and recommendations as you move to a decision.

Nurse Crops: Direct seeding of alfalfa generally results in the most productive stands. If you don't need a nurse crop for establishment, don't use one. Keep in mind a nurse crop is essentially a weed competing with the new alfalfa seedling for water, nutrients and light. If the field slope or crop plan calls for a nurse crop, use a low planting rate for the. Then harvest the small grain crop at the early boot stage.

Seed Treatments: Most if not all alfalfa seed is sold pre-inoculated and carry fungicide treatments such as Apron XL® and Stamina® for to enhance seedling survival during establishment. Coated seed with these additives included is becoming more popular and is generally less expensive per pound than raw seed. Despite having less seeds per bag, the enhanced seedling survival of coated seed when planted pound-to-pound provides equal or superior stands at season end.

Planting

Timing of Planting: Alfalfa can be planted in the spring or fall. However, the moisture and/or the ability to work the ground in a timely manner before planting may influence the preference for fall or spring planting.

Planting Rate: Plant enough seed (15-20 lbs./acre) to make sure you have a top-notch initial stand. Thin stands are very difficult to thicken up later in the season.

Seed Depth: Optimal planting depth for alfalfa is 1/4 – 1/2 inch. Seed **not** planted in a firm seedbed, and placing the seed too deep for proper emergence cause most failures. Monitor the seed depth as you plant a field.

Planting Equipment: A wide range of planters can be used to plant alfalfa successfully. These planters include grain drills, precision drills, Brillion packer types, airflow spreaders and no-till drills. If you are planting in rows be sure to use the planter press

wheels for good soil to seed contact. Keep the spacing relatively narrow to discourage weeds competition. To provide better seed to soil contact, broadcast plantings may need to be rolled/packed before and after planting. The key to a successful stand is seed placement in a firm seedbed with good seed to soil contact.