

THINK AHEAD WHEN SELECTING AND ESTABLISHING A HAY CROP

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Thinking ahead will almost always save time and money, especially when making a long-term commitment to grow a hay crop. The following 10 guidelines highlight issues that should be considered when selecting and establishing a hay crop.

1) The Forage Must Provide Appropriate Quality

For some, knowing what is acceptable to the market is easy: either their own livestock are the market or they already have a well defined outlet for their hay. In either case, the market's requirements and tolerances are well understood. Many others may be starting from scratch or diversifying their marketing plan. In these situations, it is critical to get a handle on what the market expects. First, what are the forage quality needs of the target market? To help understand this in more detail, Figure 1 shows (a) the approximate forage quality that different animal classes need and (b) the typical range in relative forage quality (RFQ) of various forage crops.

2) Obey the Hay Buyer's Golden Rule

Of course, some hay buyers focus on other measures of "quality." The most common focus points for these buyers are hay color, odor, dust, and weed content. Some may discriminate against certain forage species (and, in some cases, varieties). Others may be concerned about palatability and/or health risks, whether real or perceived. Thus, it is important to talk with your potential customers. Just remember the hay buyer's golden rule: "The one with the gold makes the rules."

3) Grow Crops that are Feasible

It is also important to understand what crops are and are not feasible for a given farm, field, and manager. Below is a checklist of ten questions to consider when comparing possible alternatives. Ideally, each item would be checked.

DOES THE FORAGE CROP:

- √ Tolerate the climatic conditions of the site?
- √ Tolerate the soil conditions of the site?
- √ Have soil fertility requirements that are economically feasible?
- √ Require more management skill than is available?
- √ Require more labor than is available?
- √ Establish quickly?
- √ Have cost-effective weed and insect control methods available?
- √ Provide sufficient yield?
- √ Use irrigation water efficiently (if applicable)
- √ Have a relatively low amount of risk (production, price, liability, etc.) associated with it?

4) Use Recommended Varieties

Once the right crop is selected, it is important to choose the right variety. In nearly all states, agronomists with the Cooperative Extension Service will have developed a list of recommended varieties for forage crops in their area and often have information on yield, pest resistance, persistence, and (sometimes)

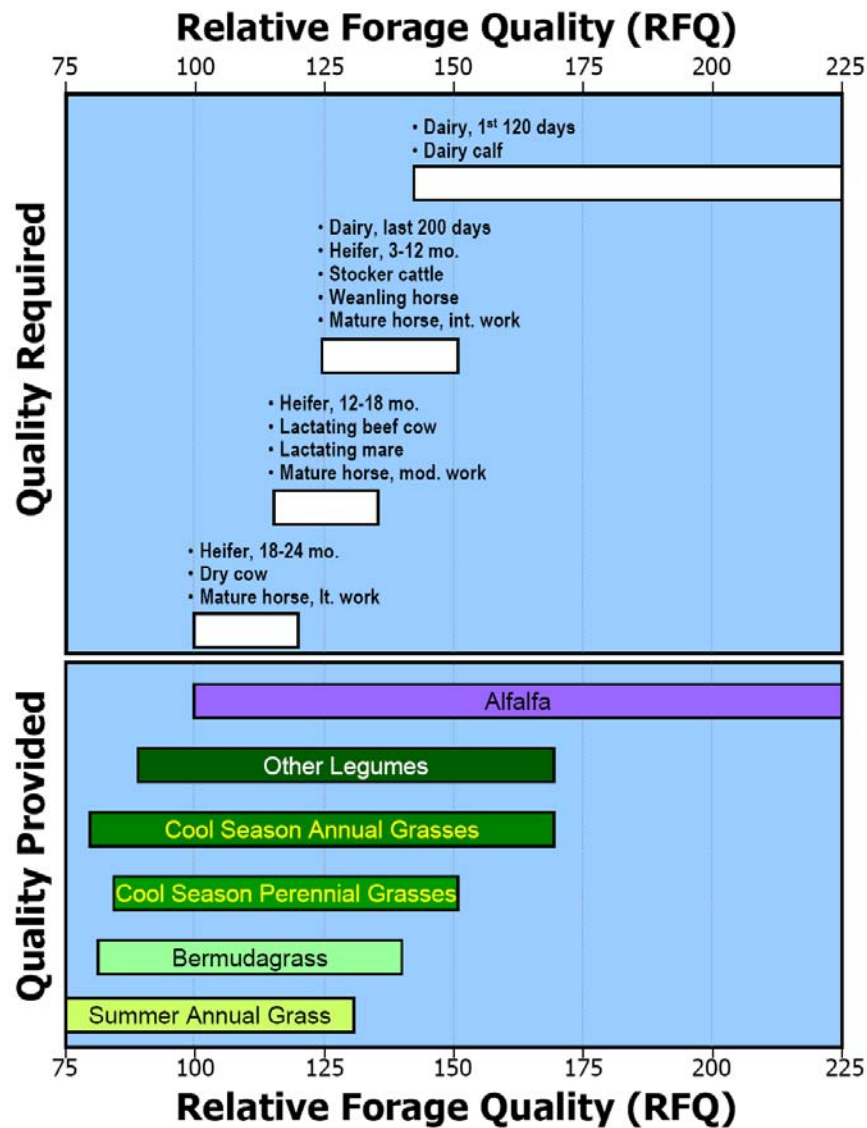


Figure 1. The approximate forage quality required by certain animal classes and the range of which that is typically provided by selected forage crops or types.

forage quality. The variety recommendation process is taken very seriously, so there are usually very good reasons why a variety is or is not recommended.

5) Use Certified Seed

Too often producers will go through all the steps of picking an appropriate crop or even variety for their specific need, only to find out later that what they thought they bought and what they actually bought were two different things. Most states have some sort of certifying agency (e.g., Crop Improvement Association) that ensures that what is on the tag is in the bag. This is usually verified with a supplemental blue seed tag. Just remember, never by a seed bag without a blue tag.

6) Address Soil Fertility Issues

One of the most common causes of establishment failures is poor soil fertility. It is best to take soil samples from a field that is slated for establishment or renovation several months before the actual planting

is to occur. It is best to have soil fertility (especially soil pH) in an optimum range before establishment is attempted and sometimes this takes time. Don't expose new stands to extra risk by failing to control that which is controllable.

7) Properly Prepare for Planting

Whether using conventional or no-till methods, a little advanced planning is absolutely necessary. When conventional tillage is feasible, it offers the rare opportunity to address major problems in the field (smooth out ruts or high spots, incorporate the recommended amounts of lime/fertilizer, or perform deep tillage, if necessary). As a rule of thumb, complete all tillage operations at least 2 – 4 weeks ahead of the planting window, thus allowing the soil to settle and firm up prior to planting. If weeds sprout during this time, a finisher can be used but should be followed with a cultipacker to firm the soil. Always plant into a firm seedbed. A boot-print should only create a 1/4 inch depression (Figure 2). Soil that is too soft may dry out too quickly or result in seeds being planted too deep.



Figure 2 A boot-print in a well-prepared seedbed will be only 1/4 inch deep.

When using no-till methods, it is best to apply a burndown herbicide 4 – 6 weeks prior to planting. This will allow the residue to decay, the seedlings to be more vigorous, and the first flush of weeds to emerge before being subsequently killed with a second burndown application before planting (if necessary).

8) Pay Attention to Seeding Depth

Another of the most common seeding failures is planting too deep. Most forage crops do not need to be planted any deeper than 1/4 inch. When planting into conventionally prepared seedbeds, a cultipacker-seeder usually provides the best results. Just because a cultipacker-seeder is used, however, does not mean you need not plant into a firm seedbed (see above). That is still a **MUST!**

Planting depth is also a major problem in no-till plantings. The cutting coulter will often go too deep (especially in wet soils) and the seed will be placed too deep. Adjust the coulter to cut about twice the depth of the seed's size (Note: For some seeds, this will mean just barely scratching the soil surface).

9) Make Appropriate Adjustments to the Seeding Rate

One of the temptations is to go on the low end of the recommended range of the seeding rate, especially given today's seed cost environment. However, it is important to take care to account for low seed quality and/or adverse planting conditions when settling on a seeding rate. Remember that seeding rates are made on a "pure live seed" (PLS) basis. It is not unheard of for some seed lots to be less than 75% PLS, especially coated, small-seeded legumes. Of course, plantings are often made with less than perfect conditions (e.g., soil is too dry or too wet, planting later than ideal, weed competition is heavy, etc.). If the recommended seeding rate is 15 – 20 lbs PLS/acre, then that means a good stand can be established at a rate of 15 lbs/acre if conditions are ideal. If the planting conditions are less than ideal, then use seeding rates on the upper end of the recommended range. An extra few pounds of seed will cost less than having to replant.

10) Control Weeds and Insects

The previous nine items mentioned here will collectively do more to minimize weed and insect damage than anything else. That is not to say, however, that adherence to these recommendations will replace the need for pesticides. Pest control options in the hayfield are now too numerous to list. Thus, learn which control options need to be “on the shelf” and plan on using them.