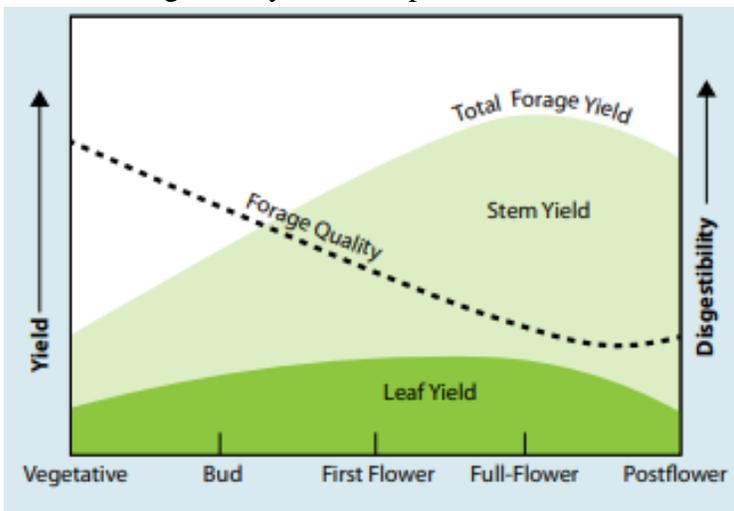


## Roll in the Hay

When to cut hay is always tricky, as there are so many factors that go into it. First is the type of forage you have and its maturity. For example, bermudagrass is cut when it has greened up and reached 12-16 inches tall. Cutting the forage at optimal maturity will help maximize available nutrient content and minimize the fiber content that makes forage indigestible.

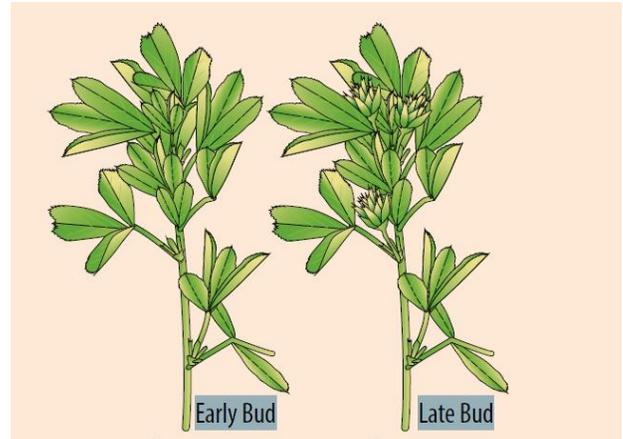


How low can you cut? When cutting alfalfa and clover, the lowest you could go would be 2 inches. It's important to make sure the alfalfa is at the right maturity before cutting. The best time to cut alfalfa is late bud to 10% bloom. Cutting at early maturity will continue to deplete the carbohydrate reserves. One cutting of alfalfa should be allowed to reach bloom stage each year, for reproduction.



Cool season grasses like orchard grass and timothy, should not be cut below 4 inches during the establishment year. However, during production

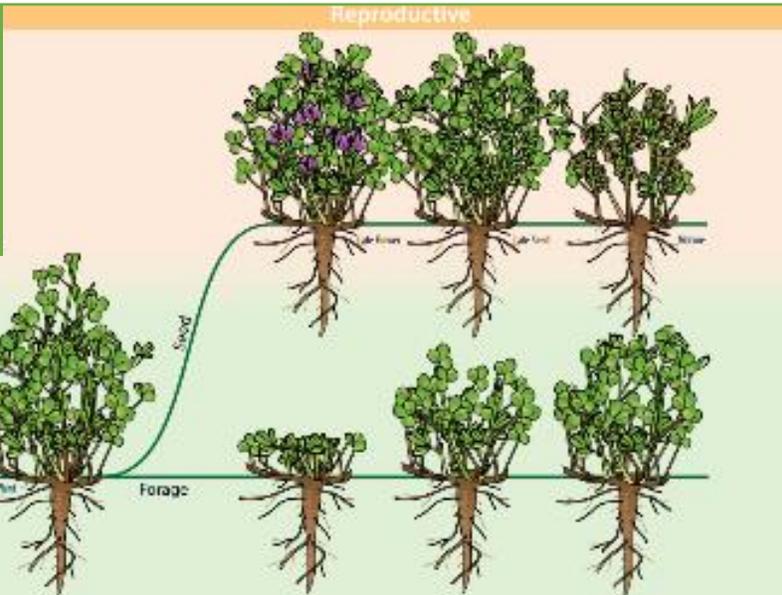
years, you can go as low as 3 inches. Frequent cutting of cool season grasses at a low height will continue to deplete the energy reserves. Mixed stands of alfalfa with some grass can be cut as low as 2.5 inches. Grass with some alfalfa should not be cut below 3 inches if you want to keep the grass stand.



Timing on when to cut the hay is where things get interesting. As for nutrient value, the plant sugar content is highest at dusk but because of moisture we usually have to wait till the dew is off. Cut mid to late morning and you will not lose that much sugar content. You will also maximize drying time. Weather forecast is the biggest challenge when deciding to cut hay. Getting a rain shower on a cutting of hay that's been mowed can reduce the nutrient content. If we get a ½ inch of rain on hay we have a 1% drop in TDN. However, research has shown that for every day after 4 weeks of maturity you will lose .5 % of TDN. So a week's delay in cutting due to rain would result in 3.5% drop in TDN. If the hay is mature and ready, you should mow it.

The next factor to consider is drying time. Making sure you have reached the optimum moisture level will help avoid spoilage losses and reduce the risk of spontaneous combustion. Moisture content for round bales is 15%, and square bales are 18%. It's very important to check this before storage as to avoid a fire hazard.

## Alfalfa Growth & Development



### Preventing Hay Fires

Hay fires are caused when high-moisture hay and bales have a chemical reaction that builds heat. This chemical reaction is called spontaneous combustion and it can happen in several ways, either by oxidation in the presence of moisture and air, or bacterial fermentation, which generates heat. When hay's internal temperature rises above 130 degrees Fahrenheit (55 degrees Celsius), the chemical reaction begins to produce a flammable gas that can ignite if the temperature goes high enough. Heating occurs in all hay above 15% moisture, so making sure your hay is dried out enough before baling and storage is essential to preventing hay fires. You should check your hay regularly. If you detect a slight caramel odor or a distinct musty smell, chances are your hay is heating. Keeping an eye on the temperatures can avoid the fire from ever happening.

Watch for the following temperatures.

- \***150°F (65°C) Entering the Danger Zone.** Check the temperature daily.
- \*\***160°F (70°C) Danger!** Measure temperatures every four hours and inspect hay.
- \*\*\***175°F (80°C) Call the Fire Department!** Wet hay down and remove from the barn.
- \*\*\*\***185°F (85°C) Hot Spots and Pockets May be Expected.** Flames will likely develop when heating hay comes in contact with air.
- \*\*\*\*\***212°F (100°C) Critical!** Temperature rise is rapid above this point. Hay will almost certainly ignite.