

WHY CUTTING & GRAZING HEIGHTS MATTER

We're often asked how to get more production from hay and pasture stands. Quality seed with good genetics, sufficient seeding rates and proper equipment and fertility practices come to mind. Another consideration is proper management, including resting periods and harvest heights. The latter is important since the answer varies based on forage type. **Below are key differences and why cutting or harvest height is imperative with common forages used today.**

ALFALFA: Growers can drop the cutter bar with alfalfa because most, if not all of its carbohydrate reserves are stored in the taproot. When cutting height is lowered, yield increases.

The downside with lower alfalfa cutting is threat of harvesting dirt (or ash), which greatly lowers forage value and runs the risk of passing rocks through equipment. Another consideration with any hay crop laid in windrows is room for air movement under the swath. Cutting lower slows the drying process; super important for growers in areas where humidity is a challenge.

CORN SILAGE: With today's technology, corn silage growers have flexibility to manage cutting heights more effectively than ever before. An obvious consideration with harvesting corn silage is the amount of starch needed in the ration. Since the ear is "fixed" on the stalk and will be harvested at any setting, varying cutting levels affect overall grain/stover ration - leave more stalk in the field and starch level increases.

Lower cuttings yield more silage but drop starch %. Beyond yield, it's fair to assume higher cuts (10-18") result in less fiber and better fiber digestibility than cutting at a traditional 6" height. It goes back to what the producer is looking for. Also consider that moisture content will likely be lower for high-cut corn silage:

- Grain represents a larger % of forage & grain is drier than stalk/stover
- Lower stalk has higher moisture content than upper portions.

FORAGE SORGHUM: Not much different than corn silage, but in some environments growers may get slight regrowth with 1-cut forage sorghums - enough where using the stand for late season grazing may make sense. What crop follows forage sorghum (and how it is planted) usually has a bearing on how low a producer may cut this crop. We seldom run into performance issues because of cutting too low.



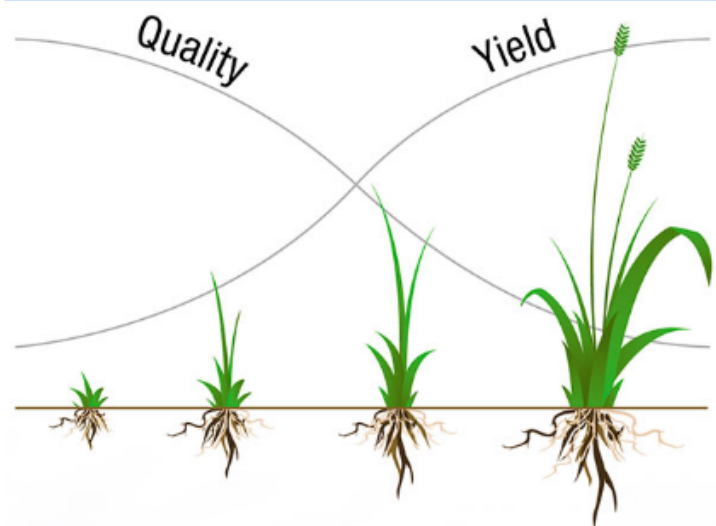
PERENNIAL FORAGE GRASSES: Perennial grasses tend to be less tolerant of low cutting heights. Regrowth in forage grasses occurs differently, but typically the more biomass left above ground the quicker regrowth will occur. Energy storage in many perennial grass species depends on a healthy crown and ability of remaining tissue to capture sunlight through photosynthesis. When this tissue is removed, regrowth is greatly affected - more than most realize.

Although challenges raising cutter bars in some machinery exist, resist the urge and raise the cutter bar, leaving at least 3-4" (although 6" is much better).

SORGHUM SUDANGRASS: Sorghum Sudangrass is used by producers wanting flexibility for multiple cutting or grazing cycles through summer. As quick regrowth is crucial for stand productivity, cutting heights must be raised. Mechanical harvesters should ideally be set to leave at least 2 nodes (6" of stubble), allowing for quicker recovery, which decreases the amount of time between the next cutting.

We've found this a challenge for many growers. Though some newer brown midrib hybrids allow for shorter cuttings, leaving the extra stubble (albeit a struggle with many) is needed to maximize production. If grazing cattle, use caution to stop when heights are reduced to 6" also.

FIGURE 1 Interaction of forage quality and yield



Source: University of Minnesota Extension

Research confirms forage yield increases at about .5 tons/acre with every 1" drop in cutting height between 6"-2". One might expect overall forage value to be less with lower cuttings, but dairy researched in the study did not decrease in milk production (Figure 1).