MANAGING THE SPRING FLUSH

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One of the most challenging aspects of a rotational grazing system is managing grass growth early in the season. Cool-season grasses produce approx. 25% of the season total yield in May and 50-70% in May and June combined. This results in an over supply of pasture during much of these months (Figure 1).

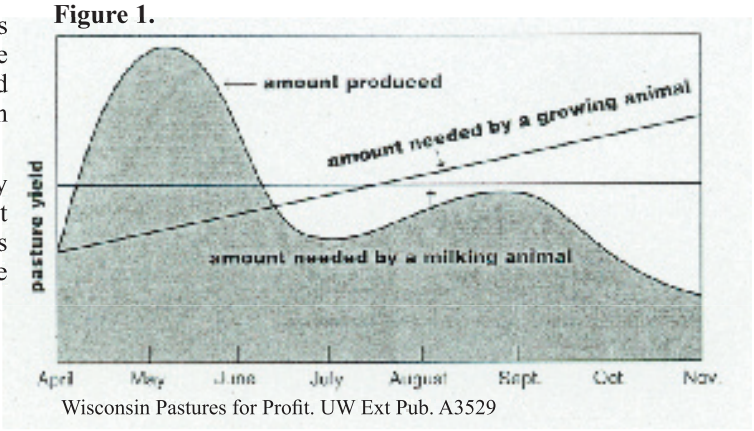
This early growth produces seedheads greatly reducing forage quality in late May and early June, making forage quality a more important consideration compared to later in the season when most growth is vegetative. Forage quality of early to mid-vegetative grasses can be quite high but drops rapidly as grasses complete the head (Table 1).

Table 1. Effect of Maturity on Smooth Bromegrass Quality

Growth Stage	Crude Protein (%)	NDF (%)	TDN (%)
Early Vegetative	20	39	73
Late Vegetative	17	52	69
Flag Leaf	15	52	67
Boot Stage	14	53	66
Heading	10	63	58

Hoffman 1992 University of Wisconsin

Figure 1.



Wisconsin Pastures for Profit. UW Ext Pub. A3529

Here are some suggestions for managing the spring flush to maximize utilization and quality:

Graze early. Early season growth of pasture grasses is composed of only leaves, as stem elongation has not yet begun. Grasses at this stage may be safely grazed beginning at a height of 2–3". Pastures should be grazed for a short duration (1 day or less depending on paddock size) then animals should be moved. Pasture at this stage is very high in quality and care should be taken to feed some hay along with the pasture, especially for horses to prevent founder. Feeding hay will also reduce the potential for bloat problems. Some producers simply open all gates and let animals have access to the entire farm. When this is done animals should not be allowed to remain in any one area for too long. This procedure can be followed for up to two weeks. As grass growth increases, the rotation should be slowed, allowing animals to remain in paddocks for longer periods. Watch for stem elongation and when it begins switch to a "take half leave half" system allowing grasses to grow to 8–10" prior to grazing.

Vary Stocking Rates. The under utilization of pasture forage early in the season is a result of too few animals taking advantage of existing forage. Increasing animal numbers will increase utilization. Certain classes of livestock lend themselves to this better than others. Dairy producers do not have as much flexibility as someone raising stocker cattle.

Leader-Follower. For dairy producers, a leader-follower system will make managing for high quality, while still controlling pasture growth, easier. In this system, milking cows are allowed to graze the highest quality forage (top ½ of existing forage). The milking herd is then followed by animals with lower nutritional requirements (i.e. dry cows, young stock). This allows pastures to be grazed more closely without sacrificing milk production.

Nitrogen Fertilization Management. Grass pastures benefit greatly from nitrogen fertilization. In cut forage systems, most of this nitrogen is applied in May to provide tonnage for hay harvest. In a grazing system nitrogen applications at this time may actually make managing spring growth more difficult by increasing forage production at a time when it is already under utilized. If over-production of grass is a problem, delay nitrogen applications until mid-June.

Make Hay. Unless pastures are maximally stocked, some excess forage will be produced during the spring flush. Harvesting this excess as hay provides late-season or winter feed. Harvesting overgrown pastures will provide tonnage but quality will likely be low. A better option is to designate some pastures for hay production prior to the spring flush. These can then be managed to optimize quality and yield. Delaying harvest until stem elongation is well underway will help ensure seedheads are removed. For beef cattle, dry cows or young stock, harvest when seedheads have emerged. For dairy hay, harvest at boot stage.

Clipping. For pastures not harvested as hay, clipping to remove seedheads and over-mature grass in mid-June will ensure even grazing and maximized quality for the remainder of the season.