

Pasture Grazing Management During Dry Summers

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A slump in pasture growth during the summer is normal in Pennsylvania. The dry weather during May and June in Central Pennsylvania and other parts of the state have caused the decreased pasture growth earlier than normal this year. Although early spring pasture growth and first cutting forage yields and quality were excellent, the dry weather and low levels of soil moisture have made the management of a pasture system more challenging than ever. In fact, many dairymen may be questioning their decision to implement a grazing system this year compared to the less risky practice of providing feedstuffs under a dry lot system. Even in a good pasture growing season, maintaining a supply of high quality pastures by grazing can be more challenging and requires more management than "traditional" stored feeding systems.

Dairymen who have adopted or are thinking about implementing intensive grazing must remember that a pasture system is an important part of the total (12 month) forage program. During excellent growing seasons such as 1990, proper management of pastures including harvesting of pasture surplus to the cows requirements in the spring can provide forage

for a major portion of the year when pastures are not productive. Most dairymen using grazing should already have the 1991 spring surplus in storage but the decisions that now need to be made are more difficult than those faced in 1990, because of the dry conditions. Learning how to manage grazing of pastures during dry periods as well as in good years is important.

Cows have been grazing for about 7-8 weeks until mid June, but the dry weather has necessitated the need to reduce grazing and begin more supplementation. While the dry conditions impact on the feed supplies for all dairymen, the shortage of pasture has a more immediate and obvious impact where grazing systems have been adopted. Following are some points that may help improve grazing during dry conditions.

1. Regularly measure the amount of pasture available. Use a visual assessment or a measuring aid such as a capacitance meter or sward stick. This information, together with the tonnages of stored forage, provides a feed inventory for the farm. Knowing the amount of pasture available in each paddock enables the number of grazing days to be calculated and can indicate the need to adjust the supplementary feeding program. The decreased rate of pasture production during the past couple of weeks should be compensated

for by increased feeding of stored forage in the ration. The nutrient composition of the grain rations may need to be adjusted for any change in the type and quality of the forage fed.

2. Make adjustments to grazing management. Avoid over-grazing, but utilize the pasture that is available while the quality is still reasonable. To avoid over-grazing, reduce the grazing period and (or) increase the level of supplementary feeding. With the anticipation of low forage supplies during the dry year, it is tempting to let animals graze. However, cool season pastures will be more productive later in the year if overgrazing is avoided. Temporarily stopping grazing due to dry conditions should not be viewed as a failure.

Our experience on items (1) and (2) with the Penn State Dairy Pasture Systems Research project may be helpful. At the time we started grazing in the spring, we did some forward planning based on the expected intake of Holstein cows and the land area available. Nearly 60% of our land area was not grazed in the spring but was "set aside" for harvesting in late May. This stored silage is normally the "bank account" reserve for summer (if needed) or winter feeding. We harvested nearly 2 tons of high quality grass silage dry matter per acre in early May. When the dry weather continued into early June, our measures indicated inadequate pasture availa-

bility for the forage dry matter needs of our cows. With no rain the land area from which we harvested silage had little regrowth and was not ready to be introduced into the grazing rotation. Initially, the cows remained in the barn during the hot days and were fed stored grass silage from our "bank account". The amount fed was based on the difference between the amount of forage dry matter required in relation to the measured amount of pasture dry matter available. For example, the cows required approximately 30 lb. forage dry matter DM per day. The pastures could only provide 15 to 18 lb. (DM) each day ((pre-graze pasture per acre - post-graze pasture per acre) - number of cows). The 12 to 15 lb. (DM) difference was made up with silage fed in the barn. After the most recent grazing cycle, the lack of rain and low levels of available pasture have necessitated keeping the cows in the barn and feeding all the forage from the stored "bank account". The amount of grain fed has not been altered. The quality of grass silage harvested in mid-May is high and of comparable quality to that of the early spring pastures. Thus, the nutrient composition of the grain has not been altered.

3. Make important decisions to maintain productivity and profit. The tendency in a dry year is to put off decisions with the hope that it will rain. Collect all the

relevant information on your feed position (inventory of supply and needs), list alternative courses of action, and make a decision. Some alternatives and potential decisions during this time include:

- Cull low producing, non-profitable cows. The lack of forage supply, low milk prices, and high cull cow prices make this a high priority decision to improve profit.

- Allocate the highest quality pasture and forage to the early lactation cows.

- With the marginal available pastures and high temperatures, adopt night time grazing if adequate pasture is available and keep cows in the barn during the day.


- Make sure an adequate supply of cool water is available.


- Consider a summer brassica crop to provide late summer and autumn forage. This will only be worthwhile if there is sufficient rainfall in July and to establish the crop.

- Consider purchasing some forage now in case the dry year persists.

When the dry period is broken initially adopt a slow rotation and maintain a high level of forage supplementation to allow feed reserves to rebuild. An application of nitrogen should be considered as soon as the dry period breaks because the increased amount of dead plant material may cause a short term deficit of nitrogen.

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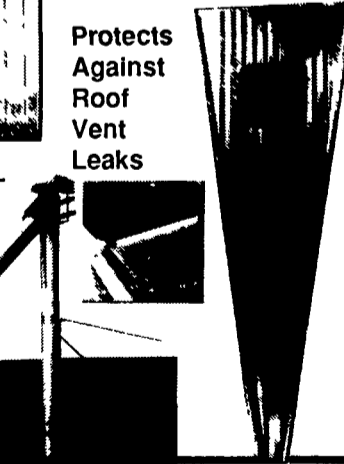


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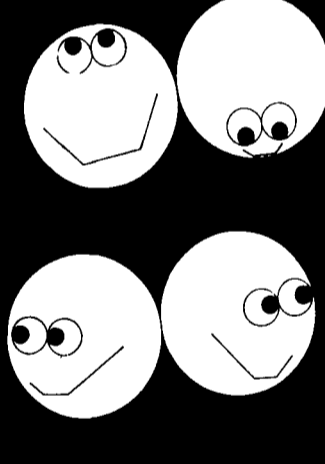


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