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Late summer forage options and management strategies in drought or dry summer

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Abstract

Hay harvests have been reduced due to dry weather and high potato leafhopper pressure. Pastures have declined in condition and productivity.

The specific strategies to be adopted by a particular producer will vary with local conditions and objectives. Among the factors influencing planning decisions are: recent rainfall and soil moisture conditions; nutritional requirements of the various types of livestock; quantity and quality of 'new crop' hay available; condition and availability of drought-stressed corn and other grain crops; and possible herbicide residues in drought forage. Below are some options and factors for your consideration.

Keywords

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INTEGRATED CROP MANAGEMENT

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Existing pasture

Most grass and legume grass pastures are overgrazed and have gone dormant, whether or not rain has fallen. Fertilizer will do little to stimulate significant growth while the pasture plants are dormant, but when adequate soil moisture and cooler autumn temperatures return, stressed pasture plants will respond to applications of fertilizer, particularly nitrogen. Consider applying 30 to 60 lb/acre of nitrogen to pastures during late summer to stimulate recovery of pasture plants and autumn forage. A significant volatilization loss of nitrogen can occur from surface applications of urea forms of nitrogen. Consider using the ammonium nitrate form if available. If urea is used, time the application just before a rain to minimize the exposure time of urea on a dry soil surface.

Even if autumn regrowth improves, and may be critically needed, consider a light grazing management to allow forage plants to regain their vigor following unusually harsh summer management. Continued supplemental feeding of hay or grain on pasture or in a drylot will lessen the dependence on the pasture and speed recovery.

Existing hay meadows

Many alfalfa and red clover based hay meadows either will not yield a normal late-summer harvest or are in a semi dormant state with no appreciable regrowth for harvest. "To cut or not to cut" very short, alfalfa growth in late September? If the field is to be rotated to another crop next year, cut when convenient. If the field is to be kept, and the producer doesn't need the forage, it will be best for the stand to leave the top growth uncut through winter. If there is a need for forage, and the alfalfa field(s) have not yet been cut, it is probably best now to delay the last seasonal cut (or grazing) until at or soon after the 'killing freeze' (23°F to 24°F),

usually in mid-October. The perennial plants are beginning their 6 to 8-week 'winter hardening' period, so harvest during this 'fall rest' will interrupt the hardening process and make the stand more vulnerable to winter injury. Leaving the alfalfa uncut until after the killing freeze will, however, lead to slightly higher fiber in the next harvested forage crop; a condition that may limit production from a high producing dairy cow, but will not generally be detrimental to the production demands of other types or classes of livestock.

Regrowth from these fields can be surprisingly rapid following significant rainfall. Avoid the temptation to cut these fields in late September. If hay meadows have not received their annual topdressing of fertilizer, applying the needed phosphorus and potassium prior to a break in the weather pattern also will stimulate their recovery. Modest amounts (40 to 60 lb/acre) of nitrogen also should stimulate autumn recovery of grass hay meadows.

The winter survival of hay meadows and rate of regrowth the next spring is often influenced greatly by management the previous autumn. An ill-timed last cut or intensive grazing frequently leads to a slightly slower spring regrowth and slightly lower first-harvest yields the following spring. Leaving a 4 to 6-inch residual stubble or uncut growth also will help to hold winter snow cover and insulate soil surfaces from wide fluctuations in temperature during late winter.

Newly seeded pastures and hay meadows

The timeliness of rainfall and the intensity of harvest or grazing of new forage plantings throughout the establishment year are critical to the successful establishment of the stand. I would encourage producers to take a critical look at new plantings to determine whether the new plants have survived. A minimal establishment year goal is at least 10 plants per square foot of the planted grass and/or legume species having survived through mid-August. An excellent stand is 20 or more seedlings per square foot. If the new stand appears to be established, use the same 'fall recovery management strategy' suggested above for established stands. Consider avoiding any autumn harvest or grazing of new stands.

If survival is very poor or the entire stand was lost to dry conditions, reseeding should be considered. The time for late-summer reseeding with respect to new forage seedings is now past. The important time interval for the success of a late-summer seeding is a 6 to 8-week period during September and October for seedling growth and development. Later seeding dates increase the risk of late summer seeding failure. At this point, defer seeding efforts until next spring.

Buying hay

All indications, thus far, indicate that the supply of dry hay will be short throughout much of the nation for the remainder of the summer through next winter until the first harvest of hay next spring. The demand will be the greatest and the supply shortest for high quality hay in small rectangular bales for the dairy industry. The supplies of medium and low quality hay and hay in large round bales will likely also be less than normal. Although a thorough discussion of hay quality evaluation cannot be covered here, a word of caution should be raised about hay buying consumerism. Don't buy whatever comes along first without doing some shopping. In hay shortage years, prices are high for most qualities of hay. Be aware of the price relative to the nutritive quality of the hay; don't pay medium to high hay price for low quality hay. Buy hay that has been tested for nutritive value if possible. Also, think through

the comparative prices of hay on a 'per ton' basis compared to a 'per bale' basis; a dime or quarter per bale makes a difference of several dollars per ton on a per ton basis.

Avoid unnecessary hay losses, particularly when hay value is high. Storage methods and protection from spoilage become more cost effective when the value of the hay being stored increases. Use common sense when protecting valuable hay. Consider the cost of various storage options on a per ton basis. Also, watch the ration requirement of livestock closely; limited feeding of higher quality hay may be cheaper in the long run than excessive feeding losses of what may seem like bargain hay.

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