

FORAGE

Winter offers ideal time for forage management activities

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Although many

of us think of the winter as being a slow time in forage management, it is actually the ideal time to perform some key activities that allow

us to better manage our pastures and grazing for the coming growing season. Activities that come to mind are summarizing production and grazing records, analyzing last year's management plan, and drafting next year's

management plan.

Summarizing forage production and grazing records is not a difficult task if you have kept good records throughout the year. Hay production is relatively straightforward. It is the quantity of bales multiplied by the average weight to determine estimated dry matter production by pasture. Dividing this figure by the number of acres gives us the production per acre. For example, a 40-acre pasture that produced 180 bales weighing 1,100 pounds each produced 4,950 pounds

of forage per acre (180 bales \times 1,100 pounds per bale \div 40 acres). You can go one step further and determine nitrogen use efficiency as well. If 92 units per acre of nitrogen (200 pounds per acre of urea) were applied to the pasture, the dry matter production per unit of nitrogen for the pasture was 53.8 pounds (4,950 pounds of dry matter per acre divided by 92 units per acre of nitrogen). By comparing the hay production by pasture, a producer can determine which fields provided the best return in production per acre and



Table 1. Estimated Forage Production from Grazing Records

Grazing Event	Class of Cattle	Weight	Number	Grazing Days	Intake % body weight	Dry Matter Consumed (lb)	% Harvest Efficiency	Estimated DM Production (lb)
1	Mature Cows	1250	45	12	2.6	17,550	65	27,000
	Bulls	1800	2			1,123		1,728
2	Mature Cows	1250	45	6	2.6	8,775	65	13,500
3	Mature Cows	1250	42	6	2.6	8,190	65	12,600
				24		35,638		54,828

can go one step further and determine the cost per acre return as well. Knowing that we want to invest first into the resources that provide us the greatest return, we can make better decisions as to which pastures get proportionally more, or less, fertilizer next year.

We can do the same with grazing records, although it is slightly more cumbersome. The information needed is the number of days a herd was in a pasture, the number of each class of cattle in the herd at each grazing activity and the approximate weight of the cattle in each class. For example, a pasture was grazed 24 days over three grazing events during the previous year. The herd consists of 45 mature cows weighing 1,250 pounds and two bulls weighing 1,800 pounds for 12 of the grazing days; 45 mature cows for 6

grazing days; and 42 mature cows for 6 grazing days. We will assume beef cattle consume 2.6 percent of their body weight per day and that our harvest efficiency is 65 percent for an introduced pasture with a good grazing rotation. The easiest means to calculate estimated forage production from grazing records is to place the information into a spreadsheet as seen in **Table 1**.

For this example, this pasture produced an estimated 54,828 pounds of dry matter production as a grazing pasture. If it is 20 acres in size, the estimated production per acre is 2,714 pounds (54,828 divided by 20 acres). By using this information, a producer has the data to identify the most productive pastures within any given year or over a period of years, productivity changes due to management activities,

and determine changes over time due to long-term management and rainfall.

After summarizing and analyzing the production records, one can assess the previous year's management plan and begin drafting next year's management plan. The activities that worked out well are continued and adjustments are made where outcomes were less than desired. To manage the forage resources well and make adjustments with confidence, producers have to utilize meaningful information at their disposal. Production records are one of the best sources of information for planning purposes – and winter is a good time of year to do these types of forage management activities. ■