

FORAGE

Monitoring summer forage assists winter management

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The arrival of August marks the beginning of the last half of summer. By this time of year, warm-season grass production is about 90 percent complete.

It is a good time for producers to inventory forages – including what is going to be harvested and stored as hay (or silage) as well as the production remaining in the pastures that will be grazed. It is also important to have an idea of the expected livestock inventory to be carried through the fall and winter, and determine if/how these numbers will be fed or how many head can be carried with the forages in inventory and expected to be grown this fall.

As was mentioned in the May 2013 *Ag News and Views* article titled *Rainfall and forage data guide stocking decisions*, a forage assessment is a useful tool to manage and plan grazing and stocking. Assuming that 90 percent of warm-season grass production is complete by the first of August and knowing the livestock numbers by class and the time frame in which numbers will be adjusted, a producer can manage forage and livestock inventory to last until spring. Plans made in August impact ►

Table 1. Example of a Critical Date Forage Assessment Form using the reserve herd day approach

Forage assessment form using reserve herd days (RHDs)
Assessment date 8/1/2013

Annual estimate of livestock demand

Cattle	Qty	Weight	Annual livestock demand		
			Per day	Days/year	Per year
Cows	60	1,200	1,872	365	683,280
2-year-old cows	10	1,000	260	365	94,900
Yearling heifers	20	800	416	365	151,840
Bulls	4	1,600	166	365	60,736
Weaned steers	34	650	575	90	51,714
Weaned heifers	34	600	530	90	47,736
			3,819		1,090,206

Grazing demand to date

Grazing demand			Livestock demand		Months grazed	Total grazing demand
Cattle	Qty	Weight	Per day	Per month		
Cows	60	1,200	1,872	56,160	4	224,640
2-year-old cows	10	1,100	286	8,580	4	34,320
Yearling heifers	20	800	416	12,480	4	49,920
Bulls	4	1,600	166	4,992	4	19,968
Weaned steers	34	800	707	21,216		
Weaned heifers	34	600	530	15,912		
			2,740	82,212		328,848

Forage year begins April

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the next seven months (September through March).

The forage assessment illustrated in Table 1 demonstrates the concept of inventorying livestock demand and forage production. Based on the example, this operation has produced about 81 percent of its annual forage thus far this year. This is 9 percentage points less than the expected production of 90 percent by the Aug. 1 date. The producer can select how he would like to proceed from several options. He can plan for winter pasture on his cropland for the weaned calf crop, which would provide grazing in the fall and in the spring. He can fertilize a portion of his bermudagrass pastures for fall stockpiling if weather conditions look favorable.

He can also purchase additional hay, market some or all the calves earlier in the fall, market some of his replacements or cull heavier into the cow herd. Knowing forage inventory in midsummer allows the producer ample time to consider each of the options and determine which makes the most financial sense.

Water year rainfall records for the Ardmore, Okla., area (as measured at each of the Noble Foundation properties and averaged by month) show that about 25.8 inches of rainfall was received from October 2012 through June 2013 which is about 4.6 inches (15 percent) below the long-term rainfall of 30.4 inches for the same period. In addition, the 12-month running total ending after

the month of June measured 30.9 inches of rainfall for the Ardmore area which is 4.6 less than the long-term annual rainfall of 35.5 inches for Ardmore – about 13 percent less than the annual long-term average. Even though May and June were good rainfall months, most of the preceding months' precipitation was less than average.

Based on the rainfall information for the area, producers should plan carefully for the seasons ahead to allow for further recovery of their pastures. This is all the more reason for producers to inventory forages in August and develop a plan of action to manage both livestock and pastures for long-term sustainability. ■

Forage inventory to date (Grazed + RHDs)

Grazing RHDs					
Pasture	Forage	Total acres	Reserve days	Cattle	Estimated forage reserve
2	Bg	140	14	Cows/2-yr	29,848
3	Bg	200	30	Cows/2-yr	20,280
4	Bg/Rg	100	14	Cows/2-yr	8,154
5	Bg/Rg	20	7	Yrlg hfr/Bull	8,099
6	Bg/Rg	120	30	Yrlg hfr/Bull	38,142
7	cropland	60	10	Yrlg hfr/Bull	49,244
barn traps	Bg/Rg	10	5	Yrlg hfr/Bull	21,749
Lbs forage grazing					175,516
Reserve grazing days					64
Reserve grazing months					2.1

Hay	(Acres)	(Qty/ac)	Bales	Weight	Reserve
Hayfield, P1	100	1	100	1,200	120,000
Hay			215	1,200	258,000
Lbs hay					378,000
Reserve hay days					138
Reserve hay months					4.6

Forage production to date

Graze+RHDs	% Annual
Grazed	328,848
RHDs	175,516
Hay	378,000
Total	882,364
% of Annual=	81

Critical dates and expected production

Date	% Annual	Total lbs
Jun 1	30	327,062
Jul 1	65	708,634
Aug 1	90	981,185
Nov 1	100	1,090,206

Carry-over hay	Bales	Weight	Reserve
Ryegrass	14	900	12,600
Bermudagrass	32	1,000	32,000
Lbs hay			44,600
Reserve hay days			6,371
Reserve hay months			0.5