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Intuitive assessment aids stocking rate management

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Although rainfall can vary significantly from season to season, year to year, it is difficult to know for certain if and when adjustments to cattle stocking rates are war-

ranted without having a professional pasture and range specialist make a thorough assessment of the property. It is a good idea to utilize a pasture and range professional when convenient, but even they prefer to have the producer's input and experience readily available to factor into their projections. A producer with several years of experience with a property can make a determination on whether or not adjustments to the long-term stocking rate are needed by using his or her own intuition and observations.

There are two approaches to determining stocking rate adjustments: professional and intuitive. The professional approach, although thorough, requires a professional trained in pasture and range management to develop. The intuitive approach, although not as technical, can still answer the question of whether or not ranch conditions warrant stocking rate adjustments. The intuitive approach utilizes a producer's experience and historical ranch information.

	Years 1980-2000	Years 2001-2010	Years 2011-2012* <i>Drought years</i>	Years 2013-2016**
Stocking Rate (mature cows)	85	74	42	54
Annual Rainfall (LT Avg.=34.5")	40.1 inches	35.1 inches	21.6 inches	44.9 inches
Percent Deviation from Average	16 percent	2 percent	-37 percent	30 percent
Pasture Condition Ratings				
Overall	Excellent	Good	Poor	Good
Grass cover	Excellent	Good	Fair	Excellent
Litter cover	Good	Fair	Poor	Good
Bare ground	None	Frequent	Abundant	Infrequent
End-of-season residual	Adequate	Limited	None	Abundant
Cow Body Condition Score (Avg.)				
At calving	6+	5.5	5.0+	5.5+
At weaning	6	5.0+	4.5+	5.0+
Hay Feeding (months)				
Planned	5	3	4	2
Actual	6	4	5.5+	2
Native Grass Residual (months)				
Planned	2-	1-	0	0.5
Actual	1.5-	0.5-	3-	1

* = lowest number ** = current number

Start by creating an intuitive assessment table similar to the one in Table 1. Notice that the columns across the top indicate the time periods of interest. This can be a series of annual assessments or, as in this table, periods of years that are of significant interest based on long- and near-time weather events. For this example, we are comparing recent years to the drought years (2011-2012) and then previous years covering two eras.

The next step is to list the important, easily monitored variables. In the simplest form, these include stocking rate, average annual rainfall and percent

deviation from average, pasture condition ratings, average cow herd body condition score, months of hay feeding, and months of native grass residual grazing remaining. Apply a four-rating system with each of the variables along with a "heat map" or color-coded system (from highest to lowest rating: green, white, yellow and red).

The stocking rate numbers for each time period are averages except for the drought years (lowest number) and current years (current stock number). Rainfall information is based on actual information if you have the records ▶

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or from the nearest weather station. Pasture condition ratings, cow body condition scores, months of hay feeding and months of native grass residual grazing remaining are based on the producer's experience and observations. To make this tool work for the designed purpose, producers have to be honest with themselves and complete the table as conservatively as possible.

If the "heat map" shows lots of green and white space, especially in recent years, the producer may have the opportunity to adjust the stocking rate upward. However, if the table shows red and yellow, the producer should consider adjusting the stocking rate downward, or at the very least it indicates room for improvement in certain management areas.

This intuitive approach to determining if stocking rate adjustments are warranted allows a producer to utilize his or her experience and ranch information to subjectively answer stocking rate questions. The professional approach is often more objective in process, but it does not take into consideration the value of trends over time as does the intuitive approach. The producer's intuition and experience is not as dated as a professional stocking rate estimate would be. ■