

# *South Dakota Rancher*®

## Management tips for South Dakota livestock and grassland managers

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### Using Production and Financial Records to Make Better Management Decisions

The holidays are over, a new year is upon us, and calving doesn't start for most of us for another month or two. Unfortunately, the end of the holiday season marks the time when we must begin preparations to give the greatest gift of all to our favorite Uncle Sam. Which makes this is great time to start putting together our production and financial records so we can see how our operations performed in 2005.

Measurements of performance in a ranching business should include, but certainly are not limited to: 1) the enterprise (livestock, hay, fee hunting, etc.), 2) natural resource use (rangelands, improved pastures), and 3) the business (financial and economic indicators).

***“It is difficult to manage something that hasn't been measured”***

- Peter Drucker

Although we all recognize that a ranching operation is greater than the sum of its individual parts, too often the measurements taken to determine performance are reported for each part and seldom are integrated into a 'whole-ranch' measurement.

This will be the first in a four-part series that looks at the tools that are available for analyzing production and financial records of your operation and what those measurements mean to you as the manager of your ranch.

One of the most common problems associated with keeping records of various production and financial measures is that everyone tends to have their own record keeping system. This in and of itself is not a major problem, as long as you know what the records are telling you. Often times, however, a single performance measurement can be calculated with different formulas, ranked on different scales, or described with terms that have multiple definitions (Dunn and Etheredge 2005).

This type of scenario creates difficulties in comparing records on your ranch from year to year and in comparing your records to industry benchmarks in your area so you can see how your operation is doing compared to the average of similar operations to help you identify strengths and weaknesses in you operation and to help you make key management decisions.

To correct this deficiency, a Standardized Performance Analysis (SPA) has been adopted by the industry to develop standard terminology, definitions, and methodology for the analysis of the production, financial, and economic performance of cow-calf operations (NCA 1992).

### **Standardized Performance Analysis (SPA)**

The first tool we will look at is the Production Analysis. Although there are several different production components that are measured through the SPA, seven critical measurements have been defined as the most useful tools for evaluating the production efficiency of a beef cow herd (Hughes 1994).

## 1. SPA Adjusted Females Exposed

This national guideline allows producers to adjust the number of females exposed for 1) why cows were culled, 2) for purchased females, and 3) for the sale of breeding females.

## 2. Pregnancy Rate

Pregnancy rate is based on the number of females checked pregnant divided by the SPA Adjusted Females Exposed.

$$\text{Pregnancy \%} = \frac{\text{No. Checked Preg.}}{\text{No. SPA Adj. Females Exp.}} \times 100$$

## 3. Calving Rate

Calving rate measures the number of females that had a live calf. Abortions are not included but still-borns are included in the calf death number.

$$\text{Calving \%} = \frac{\text{Live calves}}{\text{No. SPA Adj. Females Exp.}} \times 100$$

## 4. Percent Calf Death Loss

Percent calf death loss is not based on the number of females exposed. Calf death loss is based on the number of calves born.

$$\text{Calf death loss \%} = \frac{\text{No. Dead calves}}{\text{No. Calves born}} \times 100$$

## 5. Percent Weaned Calves

The primary reproductive efficiency measure suggested by SPA Guidelines is the number of weaned calves based on the SPA Adjusted Females Exposed.

$$\text{Weaned Calves \%} = \frac{\text{Live calves weaned}}{\text{No. SPA Adj. Females Exp.}} \times 100$$

## 6. Average Weaning Weight

Weaning weight is still the most observed production indicator used by the cow/calf sector and although it does have some economic significance, weaning weight accounts for only about 20% of the

variation observed in Unit Cost of Production (Hughes 1994).

## 7. Pounds of Calf Weaned per Female Exposed

This is a second critical measure of the production efficiency of a beef cow herd.

$$\frac{\text{Pounds of Calf Weaned}}{\text{No. SPA Adj. Females Exp.}}$$

Once these and other critical measures have been calculated through the SPA, they can then be compared to benchmark facts established for your area to help you identify strengths and weaknesses in your production system and to help you make key management decisions.

Most ranchers that have used the SPA to measure success in their ranching operations first completed their initial SPA while participating in SPA workshops through the South Dakota State University Cooperative Extension Service. In these workshops, participants are advised about what data to assemble and how to put it into a SPA. Extension faculty can then meet privately with ranchers to discuss their SPA and what it means to their individual operation.

Completing a SPA should not be a one-time activity, but should be done annually so that ranchers can analyze trends across years and see the results of changes they have made in their operations.

If you are interested in learning more about the cow/calf Standardized Performance Analysis or completing a SPA of your operation, contact Eric Mousel at 605-688-5455, [eric.mousel@sdstate.edu](mailto:eric.mousel@sdstate.edu) or Cody Wright at 605-688-5448, [cody.wright@sdstate.edu](mailto:cody.wright@sdstate.edu).

In the second part of this four part series will look at monitoring and measuring rangeland and improved pasture use in ranching operations.

## References

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