

# BEEF

Chapter 12

Production Records – Recordkeeping Systems and Standardized Performance Analysis (SPA)

Heather Gessner and Jim Krantz

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# Chapter 12: Production Records – Record-keeping Systems and Standardized Performance Analysis (SPA)

### **Production Records Generate Informed Decisions**

"You can't manage what you don't measure" is a highly used and adapted adage that most certainly had no intended reference to the cow/calf industry. However, its application has a direct relationship to the ability of cattlemen to make informed decisions. Beef cattle producers need to be more than cattlemen; they must be tactful businessmen, charting production costs versus cattle income while documenting total herd performance.

Informed decisions are vital to the sustainability of the cowherd enterprise. Dr. James McGrann, sometimes regarded as the "godfather of standardized performance analysis (SPA)," says that "the necessity of having data to determine if changes in ranch production and marketing systems are economically viable is seldom mentioned. Thus, changes can be proposed without economic evaluation of profitability. Most changes are cost-effective but lack the numbers to show profitability".

The data and numbers that Dr. McGrann talks about exist in the cow/calf enterprise records. Other information from financial and production records is needed for evaluation. This information may or may not be available in cattle manager systems.

Those with or having intentions to develop/purchase record-keeping programs make that decision with an understanding that a monetary investment in software and hardware, maybe even some tags and a reader, will be required. However, the return on investment in saved time, improved decision-making, and quality and accuracy of the information should be considered.

Cattlemen can find financial records because they use them to file taxes. Schedule F expenses like feed, veterinary/breeding, supplies, repairs, pasture rent, and labor costs are on one side of the ledger. Income from calf sales, cull animals, breeding stock, and the sale of embryos or semen are on the other side of the ledger. The margin of difference between the two, with allowances for breeding stock

# **Key Points**

- "You can't manage what you don't measure"! With no record of cow herd income, expenses, or operation profitability, it is difficult for herd managers to make informed management decisions that improve sustainability.
- Sophisticated electronic or notebook systems can record and save production and financial information
- Record-keeping is not optional for cattlemen. Revenues and expenses are volatile. Compiling management records is step one in this process. Generating and analyzing reports offers the endpoint input for management decisions.

credits, determines tax consequences for the cow herd enterprise.

These financial records, however, fail to provide detailed explanations of the production efficiency of the operation. If the cow herd generates net revenue, the herd manager only knows that he had a "good" year. Calculation of a net loss or "red ink" only shows a "bad" year. In either case, it is unknown what caused the profit or loss. Increases or decreases to either the expense or income side of the ledger may have been the cause. The net only indicates an income tax liability is or is not due. Locating the area of accountability for either the profit or loss is difficult without supporting production records and data.

Additionally, many herd manager record-keeping systems do not figure depreciation of the cowherd. Additionally, they fail to consider inventory changes. Both of these components are important for planning and financial statement preparation.

# Types of Record Keeping Available

After a cow/calf manager decides record-keeping is essential to the long-term sustainability of their operation, the decision about what type of system or method of documentation might be desirable is the next step.

Electronic systems are prevalent in many herds today. They offer advantages in terms of generating a variety of reports. Many have time-saving features like automatically updating cow age every year or the ability to upload calf data directly from the scale head of the working chute, thus eliminating manual entry.

Notebook systems function effectively, especially for maintaining cow identification and inventory, calf identification and weaning weights, and sire data. Health programs, breeding information, and pasture assignments can also be accessed readily in these formats, although data entry is manual. Formulation of average and adjusted weaning weights and sorting calves into contemporary groups can also be accomplished utilizing the notebook system. Time requirements and mathematical error potential are downsides to this system. Purebred producers may need to adopt a breed association compatible system to get the most value out of their performance records. The generation of Expected Progeny Differences (EPD's) and ratios utilize breed formulas and summaries. As these programs vary by breed, purebred producers should contact the association directly.

Several commercial record-keeping programs are available to cattlemen. Their standard features are the ability of data generation and archiving. Within each program, differing degrees of complexity are available. The minimum records required by most commercially available programs include cow age, calf sex, calf birth date, and individual or group weaning weights. More detailed particulars such as breeds included in cow families, sires used, and specific information that places calves into different contemporary groups (Ex. creep-fed/non-creep-fed) provide additional data for reporting purposes.

Most systems' necessary information are the standard performance data suggested by the Beef Improvement Federation (<u>https://beefimprovement.</u> <u>org/</u>). Sorting the data by a variety of categories provides a variety of performance reports. Examples of reports may include:

#### Calf listing (divided by sex)

- Birthdate
- Birth Weight
- Calving Ease
- Actual Weaning Weight
- 205-Day Adjusted Weight
- 205-Day Weight Ratio
- Age in Days
- Frame Score
- Confirmation Grade
- Calf Parentage
- Sex Group Averages
- Contemporary Group averages

#### Sire Summaries - Progeny Averages:

- 205-Day Weight
- Birth weight
- Calving Ease
- Weaning Weight
- Age in Days
- Frame Score
- Average Daily Gain
- Weight per Day of Age

#### **Calving Distribution**

- Calves Born by 21-day Intervals
- Average Calving Date by Cow Age
- Average Weaning Weight by Cow Age
- Average Weaning Weight by 21-day Intervals

#### **Cow Culling Report**

• Number of cows culled in each of the following categories: died, age, physical defects, low fertility or open, inferior calves, or sold as replacement stock

#### **Cow Summaries**

- Cow Identification
- Age of Cow
- Sire of Cow
- Cow Breed Averages
- Calving Intervals
- Cow Weight and Condition Score at Weaning
- MPPAs (Most Probable Producing Ability)
- Lifetime History of Individual Calf Performance

Cattlemen can garner a magnitude of information from these reports. However, without the accumulation of the necessary data, the reports are impossible to create. Much of the information results from a well-organized calving book. The investment of time recording calving, breeding, and weaning information, coupled with an investment of time during the set-up stage of developing the recordkeeping system, yields reports the producer can use to make production and management changes.

Record-keeping, by itself it offers little in terms of evaluating cowherd profitability. Commercially available and private record-keeping programs can create reports comparing weaning weights, calving percentages, most probable producing ability and calving distribution. However, without comparisons made to industry or database benchmarks, these are simply numbers and offer little value in assessing profitability or production efficiency.

Standardized Performance Analysis (SPA) is a tool designed to do that. SPA is useful in monitoring and controlling costs as well as formulating goals for the operation. Data required to complete a SPA include:

- Beginning and ending dates for breeding, calving, and weaning
- Number of grazing and raised feed acres plus the market value of raised feed fed
- Weaned calf production and market values
- Cull cow and bull sales
- Number of exposed females and replacement rate
- Death losses
- Calving percentage
- Cost basis and market value of assets used in the operation
- Accrual income statement
- Loan repayment schedules

SPA is an analysis tool, not an accounting or production record system. The first objective of SPA is to determine the production and financial performance of the cow-calf enterprise. SPA helps identify potential areas for change and measures progress in meeting business objectives.

The standardized analysis facilitates comparisons between production years, producers, production regions, and production systems. Pooled data provides regional performance averages and ranges while protecting individual producer data. A "report card" shows how they rank with other producers in the database. (Stan Bevers and Dean McCorkle, Texas A&M)

SPA analysis evaluates two areas of the operation: production and financial. These identify the need/ benefit of production and financial records for the cow/calf operation. Both can be performed individually, with many cattlemen choosing to focus on the production option.

When cattlemen complete a SPA analysis for the first time, it is essential to remember that all production calculations are based on the number of "exposed" females. Consequently, pregnancy percentage, calving percentage, weaning percentage, and other production percentages reflect lower values than operations not working from the "exposed" female baseline. That's what standardized analysis does: It compares the cattleman's production measurements on the same criteria to industry benchmarks.

# Summary

"You can't manage what you don't measure" should serve as a challenge to all cattlemen as they strive for profitability and, ultimately, sustainability. Recording production data such as birth dates and weaning weights is step-one in a producer's attempt to manage cowherd productivity. Do not underestimate the importance of that process. However, record-keeping programs and Standardized Performance Analysis (SPA) provide cattlemen the ability to measure those things they manage and compare them to industry benchmarks.

# References

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