

# MONTHLY GUIDANCE

MT 9309

Agriculture

## Production Records for Commercial Beef Producers

by  
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Many beef producers base selection decisions in their herds completely on visual appraisal. By using individual cow records, beef producers can make decisions that will improve the genetics of their cow herds and, more importantly, base management decisions on traits that can improve profitability.

Performance records must be useable. Many producers do the necessary calculations on a hand calculator or on a home computer while others send the information to breed associations or individual businesses which put the information into a useable form.

Whatever record system you use—whether by computer or index card—keeping individual cow records takes commitment and time as well as ear tags, special equipment and hired labor.

For commercial producers, simplified records may be adequate. This is the information that may be important to a producer.

### **Cow and calf ID number**

In order to keep performance records, all cows

and calves must be numbered or identified. There are many different numbering systems that work. It is a good idea to incorporate the year of birth into the number to facilitate quick decisions. For example, heifers and two-year-old cows are often bred separately from mature cows.

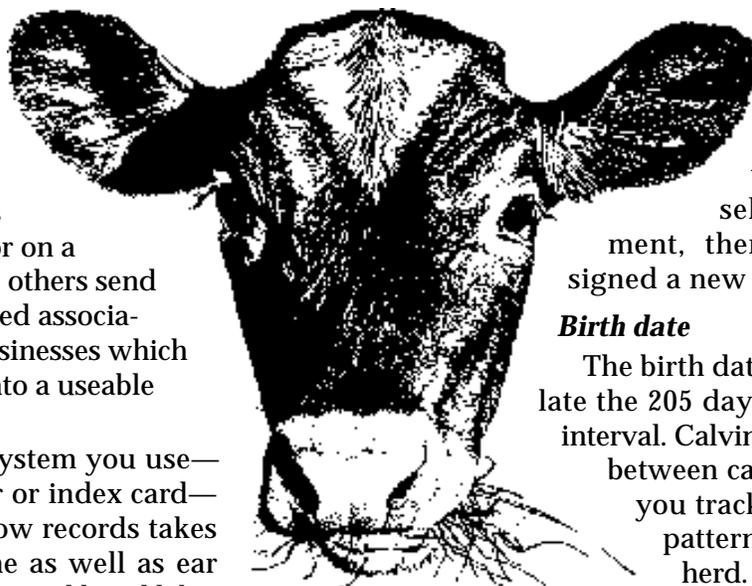
One system that is very popular is giving the calf the same number as the cow. If the calf is selected as a replacement, then it would be assigned a new I.D. number.

### **Birth date**

The birth date is needed to calculate the 205 day weight and calving interval. Calving interval is the days between calvings and will help you track each cow's calving pattern over her life in the herd.

### **Birth weight**

Birth weight is moderately heritable and high birth weight is the cause of most calving difficulties. By weighing calves at birth, you can select replacements for low birth weight and reduce the incidence of calving difficulties.



Calving ease data is an alternate on ranches where it is difficult to weigh each calf, or can be combined with birth weight information.

### **Calving ease**

Calving ease is also moderately heritable. By recording assistance given to a cow, you can use cows which do not have calving difficulty as replacements. Calving ease records can supplement other selection tools such as pelvic measurement on heifers. Following is one system for recording calving difficulties.

| <b>Calving Ease Score</b> |                       |
|---------------------------|-----------------------|
| <b>Score</b>              |                       |
| 1                         | No assistance         |
| 2                         | Assisted, easy pull   |
| 3                         | Assisted, hard pull   |
| 4                         | Caesarean delivery    |
| 5                         | Abnormal presentation |

### **Weaning weight**

Montana producers sell their calves, by weight, at weaning. Knowing the weaning weight of individual calves can help in selecting replacements and in culling cows who consistently wean light calves.

If a weighing scale is not available, use a number score to estimate each calf's size in relation to the other calves in the herd. Below is a simple system to estimate and score calf size.

| <b>Calf Weaning Score</b> |            |
|---------------------------|------------|
| <b>Score</b>              |            |
| 1                         | Very large |
| 2                         | Large      |
| 3                         | Average    |
| 4                         | Small      |
| 5                         | Very small |

While it is not as accurate as actually weighing calves, estimating will help you to group calves by size. Do not confuse weaning scores with frame scores.

### **205 day weight**

205 day weights are part of a system to even the differences in calf ages, cow ages and sex of the calf. The formula is:

$$\text{Adjusted 205 day weight} = (\text{Actual wean weight} - \text{Birth weight}) \div \text{Age in days} + 205$$

If you do not weigh calves at birth, you could use a standard birth weight of 75 or 80 pounds in the formula. Once you have done the initial calculation, you need to adjust the weight for the dam's age and the calf's age. The adjustments are:

| <b>205 Day Weight Age of Dam Adjustment Factors</b> |                    |                      |
|---|--------------------|----------------------|
| <b>Age of Cow</b>                                   | <b>Male Calves</b> | <b>Female Calves</b> |
| 2 years old   | +60 lbs            | +54 lbs              |
| 3 years old   | +40 lbs            | +36 lbs              |
| 4 years old   | +20 lbs            | +18 lbs              |
| 5-10 years old                                      | No Adjustment      |                      |
| 11+ years old                                       | +20 lbs            | +18 lbs              |

### **Weaning weight ratio**

The weaning weight ratio can be used with either the actual weaning weight or the 205 day adjusted weight. The ratio will give you a percentage that each calf is compared to its herd mates. The average is 100, with animals having a ratio above 100 being above the herd average and scores lower than 100 being below the herd average. All scores are in percentages so a calf with a ratio of 108 is 8 percent above the herd average. The formula is:

$$\text{Ratio} = \frac{\text{Individual weight}}{\text{Herd average weight}} \times 100$$

Many producers will determine ratios by sex group, calculating the ratios for heifer calves and the ratios for male calves.

### **Adjusted 365 day weight**

The 365 day weight is used to compare growth adjusted to one year of age. The formula is:

$$\text{Adjusted 365 day weight} = 160 \times (\text{Actual final weight} - \text{Actual wean weight}) \div (\text{Number of days between weights}) + 205$$

Yearling weight ratios can be calculated using the formula given for weaning weight ratios.

### **Record Systems**

There are many very good record-keeping systems available and deciding which one to use can be difficult.

If you are keeping records by hand, this MontGuide includes a sample of a record sheet that can be put on a 5 X 7 index card or used as a sheet in a three ring binder.

**Pocket books**

Pocket books are designed to fit in your pocket and have space to record individual data and notes. The pocket book is designed for one year and all the information should be transferred to permanent records. There are many pocket books available including the *IRM Red Book* (available from your Extension agent.)

**Computer Programs**

As more ranchers become computer users, the available software is increasing. There are several programs available from Extension Services in several states, including:

“MSU Herd”—This program is to assist producers in calculating 205 day weights, 365 day weights and ratios. It is not a permanent record system, but does make the necessary calculations much faster. The Herd program is available from your local Extension Agent.

“PC Cowcard”—Cowcard is a complete individual cow record-keeping system that keeps histories and data permanently for all cows entered. Cowcard will calculate data from 205 day weights and ratios and also calculate data on individual cow performance. PC Cowcard is available from:

PC Cowcard  
 Nebraska Cooperative Extension Service  
 Ag Communications Department  
 University of Nebraska  
 Lincoln, Nebraska 68538  
 (402) 472-3023

“Chaps” - Chaps Provides summaries on cow herd performance that can assist in decision making. It is a permanent record system and does all necessary calculations.

Chaps  
 North Dakota Cooperative Extension Service  
 North Dakota State University  
 Morrill Hall  
 Fargo, North Dakota 58105  
 (701) 237-8944

**MONTANA INDIVIDUAL COW RECORD**

Cow I.D. \_\_\_\_\_ Breed \_\_\_\_\_  
 Birth weight \_\_\_\_\_ Birth date \_\_\_\_\_  
 Weaning weight \_\_\_\_\_ 205 weight \_\_\_\_\_ Ratio \_\_\_\_\_  
 Yearling weight \_\_\_\_\_ 365 weight \_\_\_\_\_ Ratio \_\_\_\_\_

| Calf ID | Birth date | Birth wt | Calving ease | Sex | Calving interval | Wean wt | Wean date | 205 day wt | wean ratio | Year wt | Year date | 365 day wt | Year ratio |
|---------|------------|----------|--------------|-----|------------------|---------|-----------|------------|------------|---------|-----------|------------|------------|
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Comments

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