

# Opportunities for Cow-calf Practice: Interpreting the NAHMS Cow-calf Report

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## Introduction

Production efficiency has become the watch word for cow-calf producers. Over the years the concept of initially integrated reproductive management and later integrated resource management has been adopted as a means to improve production efficiency on operations. Over time there has been a realization that maximum production is not always compatible with profitability or long-term sustainability. In addition, there has been a realization that one must focus on both components of the profit equation, revenues and costs, in order to achieve profitability in the enterprise. Many factors contribute to the potential for increased efficiency and profitability. Improved genetics, control of animal pathogens, nutrition research, and the development of reproductive technology all contribute to the potential for efficiency. However, data from the National Animal Health Monitoring System's (NAHMS) Beef '97 study suggest that relatively few producers are implementing some of the techniques that could contribute to production efficiency. The veterinarian is a key provider of information to producers and is in a position to help producers adopt technologies or improve management where appropriate. These sorts of decisions should always be based on the anticipated economic benefit to the producer.

## Study Background

The NAHMS Beef '97 study was based on personal interviews with a stratified random sample of cow-calf producers from 23 key states<sup>1</sup> with respect to cow-calf production. In phase II of the study producers with 5 or

<sup>1</sup>The 23 states participating in the Beef '97 study included Alabama, Arkansas, California, Colorado, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Mississippi, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Virginia, and Wyoming.

more beef cows were contacted for a personal interview. The results of phase I of the study represent 85.7% of the U.S. beef cows on January 1, 1997 and 77.6% of the U.S. operations with beef cows. The results of phase II of the study represent 85.0% of the U.S. beef cows on January 1, 1997 and 66.3% of the U.S. operations with beef cows.

## Veterinarians' Role

Cow-calf producers see veterinarians as a key source for information (Table 1). Veterinarians were cited as being "very important" information sources for operating their cow-calf operation by 60.8% of producers. Only 8.2% of producers said that veterinarians were "not important" as an information source. Also, veterinarians were cited most frequently (35.5% of producers) as the single most important off-farm source of nutritional information. It is clear that cow-calf producers

**Table 1.** Percent of operations by importance of the following information sources for operating the cow-calf operation.

Source	Percent Operations						Total
	Not Important	Standard Error	Somewhat Important	Standard Error	Very Important	Standard Error	
Extension Service/universities/ Vo-Ag instructors	32.4	(±1.8)	43.5	(±1.9)	24.1	(±1.8)	100.0
Veterinarians	8.2	(±1.1)	31.0	(±1.9)	60.8	(±2.0)	100.0
Beef magazines or agricultural journals	30.7	(±2.0)	53.9	(±2.0)	15.4	(±1.3)	100.0
Producer associations	58.0	(±1.9)	32.2	(±1.7)	9.8	(±1.1)	100.0
Other producers	30.4	(±1.9)	46.9	(±2.0)	22.7	(±1.6)	100.0
Salespersons	41.7	(±2.0)	42.3	(±2.0)	16.0	(±1.3)	100.0
Consultants	77.5	(±1.6)	16.1	(±1.5)	6.4	(±0.8)	100.0
Radio, television, or newspapers	55.5	(±2.0)	36.5	(±1.9)	8.0	(±1.2)	100.0

hold the veterinarian in high regard with respect to being an information source. The veterinarian is in a position to help the producer achieve a high level of production efficiency by dispensing the right information.

### Record Keeping

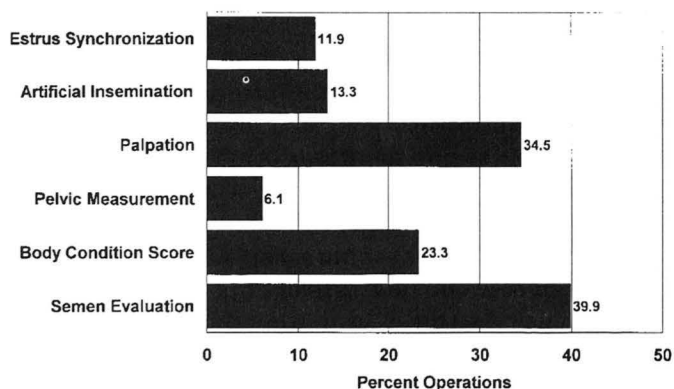
The adage goes “you can’t manage what you can’t measure”. When asked about the use of a record keeping system, 81.3% of producers indicated some use of a system. However, only 13.0% of producers indicated some use of a computer (either on or off the farm) in their record keeping operation. In all but the smallest herds, the reliance on hand-written records precludes extensive analysis of the data that might be helpful in improving production. Another component of the records system is animal identification. Over half of producers (51.3%) reported no use of individual calf identification. Somewhat fewer producers (46.8%) reported not using any individual cow identification. Again, in all but the smallest operations, the lack of individual identification could impact decision making with regard to culling and other management options.

### Nutritional Management

On most cow-calf operations nutrition is a large component of annual cow costs. Nutrition is typically the single largest category contributing to annual cow cost, often in excess of 50% of the total cost. In spite of it being a key cost center, cow-calf producers are doing little to make informed decisions about how to manage those costs. Only 22.0% of producers reported that they usually calculate a balanced ration for the cow herd. Though this is related to herd size, only 47.7% of the largest herds, those with 300 or more cows, calculated a balanced ration. Only 9.0% of operations submitted any feed sample for analysis. Among the operations that calculated balanced rations, only 26.9% submitted feed sample for analysis indicating that published average or expected values were used to calculate the balanced rations. Given the wide variation in nutrient content in some types of feeds, this may not be the best approach to fine tuning the nutritional cost center.

### Reproductive Management

Data from phase II of the study indicate that relatively few producers use some of the reproductive technologies that have been thought to enhance production and production efficiency for several years (Figure 1). Approximately one-third (34.5%) of producers use any rectal palpation for pregnancy diagnosis (regardless of who performs the examination). Only 39.9% of

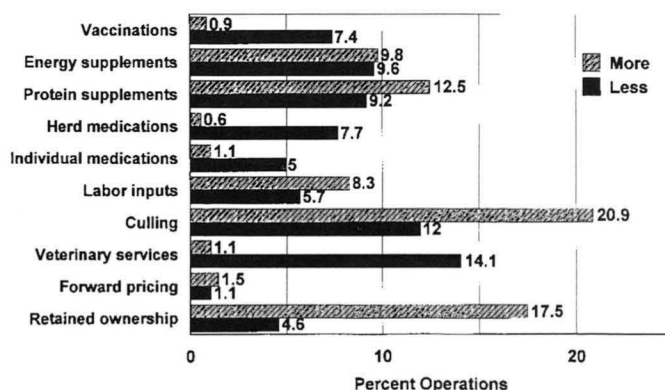


**Figure 1.** Percent of operations using various reproductive management technologies.

producers reported evaluating any bulls (either new additions or those already in the herd) for breeding soundness. Even fewer producers made use of some of the other technologies such as body condition scoring (23.3%), estrus synchronization (11.9%), artificial insemination (13.3%), and pelvic measurement (6.1%). While the use of these technologies cannot and should not be advocated for all producers, the low frequency of use suggests that there are some producers that could benefit from the adoption of these tools through improved production efficiency.

### Health Management Decisions

In 1995 and 1996, prices for weaned calves were at a low point in the cycle that normally occurs. When asked about changes in management in response to those cyclic low prices, most producers indicated that they did not make any changes (Figure 2). Among those producers that did make changes, more producers opted for less vaccination, less individual animal or herd treatments, and less use of a veterinarian. Protein supplementation, labor inputs, culling, and retained ownership were management options whose use was



**Figure 2.** Percent of operations that did more or less of the following management practices because of low prices for weaned calves, 1995-1996.

increased more often when producers elected to make a change. In some cases these decisions may not be the best approach to short term risk management especially with respect to animal health. Again, the veterinarian should be well suited to help the producers make informed decisions about what will be the most cost effective strategies to contain costs while having minimal impacts on revenues and acceptable levels of risk.

### Summary

Cow-calf producers have made strides at improving production and production efficiency. Some producers are unlikely to make substantial gains in production efficiency without the advent of new technologies. However, for the bulk of producers, there is a wealth of technology already available that might be able to help them improve their bottom line.

The veterinarian is a key resource for helping producers achieve the highest efficiency possible for their operation. Because of their familiarity with the individual operation and broad based knowledge of biology, medicine, and the production system, the veterinarian is in a position to help the producer choose which of the

available technologies they should incorporate to help them meet their goals.

### Acknowledgment

*The help of the many state and federal veterinarians and animal health technicians along with the participation of the producers is gratefully acknowledged. In addition, many at the Centers for Epidemiology and Animal Health contributed to the compilation and summarization of the data.*

Copies of the reports from the Beef '97 study are available on the world wide web at:

<http://www.aphis.usda.gov/vs/ceah/cahm/nproj.htm>

Hard copies of the reports are available from:

Centers for Epidemiology and Animal Health  
USDA:APHIS:VS, attn. NAHMS  
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## Abstract

### An outbreak of contagious bovine pleuropneumonia in Ngamiland district of north-western Botswana

**W. Amanfu, K. V. Masupu, E. K. Adom, M. V. Raborokgwe, J. B. Bashiruddin**  
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An outbreak of contagious bovine pleuropneumonia (CBPP) was detected in Botswana in 1995 after more than half a century of freedom from the disease. Lung tissues, pleural fluids, nasal swabs and serum samples were examined in laboratories in Botswana, South Africa and Namibia and the findings were confirmed in Italy. The disease was confirmed as CBPP from the gross

and histopathological changes in the lungs of affected animals and by the culture of the agent of CBPP, *Mycoplasma mycoides* subspecies *mycoides*, small colony variant (MmmSC). These findings were supported by the demonstration of specific complement-fixing antibodies and the production of polymerase chain reaction products of MmmSC.