A Comprehensive Health Program

Designing a herd health program for the cow-calf ranch requires setting comprehensive goals. Designing a program that prevents only death and sickness is shortsighted and will not maximize herd profitability.

This report will provide goals and strategies for a comprehensive herd health program.

Four main goals of the herd health program are common to all ranches. A list of strategies for reaching these goals is presented. It is up to the rancher and his veterinarian to pick and choose which strategies to use and to assign a herd calendar to implement those strategies.

1. The first goal is to have optimum reproductive performance.

A realistic goal is to have 90 percent or greater of all cows give birth to a live calf.

What strategies can be utilized to reach this goal? To achieve maximum live births, maximize the number of cows and heifers that get pregnant within the defined breeding period.

The most important management tool to optimize pregnancy is proper nutrition. A cow that is in poor body condition will not cycle until the poor body condition is corrected. Additionally, deficiencies in selenium, copper, manganese, or vitamin A have been shown to affect conception adversely.

The second strategy to optimize reproductive performance is to prevent diseases that cause abortions.

A list of diseases includes Leptospirosis, IBR, BVD, Vibrio, and Trichomoniasis. Vaccines are available to prevent all of these diseases. In certain areas where anaplasmosis and foothill abortion are a problem, they must be managed through controlled exposure and antibiotics.

The third strategy is to cull cows that demonstrate poor fertility and consistently require two to three services to conceive. Poor fertility is heritable. Another way to improve poor herd fertility is crossbreeding. Crossbreeding may improve conception parameters 5-10 percent across the herd.

The fourth strategy to reach the first goal is to optimize bull performance. This would include doing breeding soundness exams, maintaining proper nutrition and using appropriate bull power.

2. The second goal is to increase the percentage of cows that wean a live calf.

Here are two strategies that will help you achieve this goal:

- Vaccination programs for diseases like Leptospirosis, IBR, BVD, Vibrio, and Trichomoniasis.
- Ensuring proper nutrition and health care for all cows and heifers.
The first strategy is to prevent neonatal mortality from common diseases such as scours and pneumonia through vaccination and good management. Diseases that occur later in the calf's life, like blackleg and overeating disease, can be prevented through vaccination.

The second strategy is to increase hybrid vigor in the herd that will increase mothering traits in the cows. By improving mothering traits, the calf's chances of survival will be increased.

**3. The third goal is to utilize strategies to increase the calf's average weaning weight.**

Crossbreeding and nutrition are important considerations to achieve this goal.

Additionally, parasite control programs and growth promotants (like implants and ionophores) can improve weaning weights. Controlling diseases like footrot and pinkeye are also components necessary to maximize weaning weights.

Also, research has shown that castration near birth will improve weaning weight over bulls that are castrated at 4-5 months.

Several other strategies exist to improve weaning weight. However, significant cost-benefit analysis should be done before one of these strategies is adopted.

**4. The fourth goal should be to increase the longevity of the breeding herd.**

Optimum profitability from the commercial cow is generally realized when she produces eight calves. The purebred producer trying to optimize genetic improvement will choose to cull cows before the eight-calf mark.

Here are two strategies to increase the longevity of the herd:

The first strategy is vaccination against disease that causes sickness and abortion.

The second strategy is to implement biosecurity measures to prevent introduction of new diseases.

It should be recognized that a cull rate of 20-25 percent of the breeding herd is normal. Also recognize that a mortality rate exceeding 2 percent of the breeding herd is a point at which to implement new management strategies.

Given these four main goals, a rancher can design a comprehensive herd health program to reach these goals. When designing a herd calendar to implement these strategies, optimize the number of times the cattle are being handled.

Besides the obvious expense of manpower to handle beef cattle, there is the hidden cost of stress and injury that occur every time these animals are run through a chute. Properly designed facilities can reduce stress and injury; however, cattle still respond negatively to handling. Consult with your veterinarian, nutritionist or other members of your integrated resource management team to minimize handling while optimizing your herd health.