

Beef CHAMPS

Beef Cattle Health and Management Production Strategies

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Stocker Cattle Health Management

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Proper health management is a vital part of any successful stocker operation. The investment in disease prevention is always less than the subsequent cost of disease treatment. Management of newly received or weaned calves during the first three to four weeks may very well determine the profit or loss of a stocker cattle enterprise.

When receiving stocker cattle, have all calves delivered to the farm during a short period of time (between one day to a few days). Handle the calves as one group from that point. Do not mix new calves with calves that have been settled. If new calves are purchased, keep them separate and handle them as a different group. Assume that all incoming calves need complete processing.

Calves should be placed in a large, clean pen or in a small pasture directly off the truck and be given free access to good quality grass hay and fresh, clean water. Provide ample feed trough space for each animal. Eighteen inches of feed bunk space per calf is adequate. Process calves within a few hours of their arrival to your operation; however, if the cattle have traveled a great distance, a good rule of thumb is to wait one hour for every hour they were on the truck before processing. This waiting period allows the cattle to rest and settle down before undergoing processing.

Vaccination

You typically will not know the vaccination history for most cattle you purchase; therefore, it is reasonable to

assume that the calves have not received any previous vaccinations. Vaccinations should include a 5-way viral vaccine that includes Infectious Bovine Rhinotracheitis (IBR), Bovine Viral Diarrhea (BVD) type I and II, Parainfluenza₃ (PI3) and Bovine Respiratory Syncytial Virus (BRSV). Calves should also receive a 7-way clostridial vaccine ("Blackleg"). Cattle should receive booster injections of both vaccines approximately 14 days following the initial injections.

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Other vaccines for bacterial causes of bovine respiratory disease (BRD) are commercially available. These vaccines include *Mannheimia haemolytica*, *Pasteurella multocida*, *Haemophilus somnus* and *Mycoplasma bovis*. Many producers and veterinarians have differing opinions on how effective these bacterial vaccines are for a stocker cattle operation. Since situations vary from farm to farm, consult with your veterinarian about the vaccination requirements for your particular operation.

Additional processing should include providing each calf with a unique ear tag, castrating all intact

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males, administering a dewormer and dehorning or tipping the horns of any horned calves in the group. If scales are available, you should also take an individual weight on each calf during processing. Record keeping is an important part of receiving management. Keep an accurate record about the details of vaccinating and processing each group of calves.

Mass Medication

Metaphylactic antibiotic therapy – mass medication of an entire group of animals to minimize an anticipated disease outbreak – should be considered for some “high-risk” groups of cattle. Generally, it is worthwhile to mass medicate an entire group if 25 percent or more of the group is expected to get sick with respiratory disease. The number of animals that exhibit illness can be affected by many risk factors, including weather, vaccination history, size/age of cattle, time of year, commingling and weaning status.

Respiratory Disease

By far, the most common disease issue in stocker cattle is bovine respiratory disease (aka pneumonia or shipping fever). Clinical signs for this disease can include decreased activity or depression, lowered head, increased respiratory rate, runny nose, poor appetite, separation from the herd, soft coughing and gaunt appearance. Early detection and treatment of respiratory disease is essential. If treatment is delayed, this will only increase the number of deaths or chronically infected animals in the herd. As the disease progresses, severe lung damage occurs. Typically, the damage that takes place with this disease is irreversible. That is why early detection and early treatment is important.

Calves should be observed each morning for signs of respiratory disease or other ailments, and

a clinical score should be assigned to the calves exhibiting signs of illness (see Table 1). Calves determined to be examined should have their temperature taken. Normal temperature for cattle is 101.5 degrees Fahrenheit, and cattle should receive appropriate antibiotics if their body temperature exceeds 104 degrees Fahrenheit. Cattle will exhibit a somewhat fluctuating body temperature based on diurnal patterns and ambient temperature. Therefore, it is best to check cattle in the morning hours when those factors are least likely to affect the body temperature. All calves showing a rectal temperature of greater than 104 degrees Fahrenheit or exhibiting a clinical illness score of greater than 2

(regardless of rectal temperature) should undergo treatment.

Records should be kept for each calf that is pulled and treated. For each sick calf, a treatment card should be prepared that includes the date, calf number, a clinical illness score and the name of the antibiotic treatment administered. Record keeping allows you to track treatment expenses and allows you to abide by proper drug withdrawal periods. Consult with your veterinarian to obtain assistance with establishing an antibiotic treatment program for sick cattle. Table 2 gives an example of a treatment schedule that could be implemented for a stocker cattle operation.

Table 1. Clinical Illness Scores (CIS) for Calves

Score	Description	Appearance
1	Slightly ill	Mild depression, gaunt, +/- ocular/nasal discharge
2	Moderately ill	Ocular/nasal discharge, gaunt, lags behind other animals in the group, coughing, labored breathing, moderate depression, +/- rough hair coat, weight loss
3	Severely ill	Severe depression, labored breathing, purulent ocular/nasal discharge, not responsive to human approach
4	Moribund	Near death

Table 2. Example Treatment Schedule for Bovine Respiratory Disease (BRD)

Therapy 1: Drug X (_cc/100 lbs)

- After administering Therapy 1, recheck calf in 48-72 hours. If clinical illness score is greater than the initial score OR if rectal temperature is still ≥ 104 degrees Fahrenheit, then treatment failure has occurred and go to Therapy 2. Otherwise, consider this treatment a success.

Therapy 2: Drug Y (_cc/100 lbs)

- After administering Therapy 2, recheck calf in 48-72 hours. If clinical illness score is greater than the initial score OR if rectal temperature is still ≥ 104 degrees Fahrenheit, then treatment failure has occurred and go to Therapy 3. Otherwise, consider this treatment a success.
- Also use Therapy 2 for calves that responded to Therapy 1 but relapsed less than 21 days since receiving Therapy 1.

Therapy 3: Drug Z (_cc/100 lbs)

- After administering Therapy 3, recheck calf in 48-72 hours. If clinical illness score is greater than the initial score OR if rectal temperature is still ≥ 104 degrees Fahrenheit, then treatment failure has occurred and the calf is identified as a “Chronic.” Otherwise, consider the treatment a success.
- Also use Therapy 3 for calves that responded to Therapy 2 but relapsed less than 21 days after receiving Therapy 2.

(If clinical signs reoccur more than 21 days after administering any previous therapy, then this is considered a new episode and you should begin with Therapy 1.)

Table 3 demonstrates a general schedule to follow for processing and caring for stocker cattle on your operation. For

more information about stocker cattle management, visit your county Extension office. (This article has been adapted from

the University of Arkansas Cooperative Extension publication MP 379.

Table 3. Calf Health Schedule

Day	Major Activities	Comments
0-1	Calves arrive. Place calves in pasture/pens near working facility.	Provide good quality grass hay and fresh water.
	Process calves Vaccinations: IBR-BVD-PI3-BRSV 7-way Clostridial	Process calves within a few hours of arrival. Consult your veterinarian for total health program.
	Parasite control	Treat all calves for intestinal parasites. Use fly control during summer months as needed. Treat for lice and grubs as needed.
	Further processing: Ear tag each calf Implant Castrate intact males Weigh each calf Dehorn (if needed) Abort pregnant heifers Mass medicate (if needed)	Record processing information about group using copies of Addendum 1. Record arrival weights to track gain.
Each day	Observe calves for illness each morning. Treat calves exhibiting signs of respiratory disease.	Signs include nasal discharge, gaunt, decreased activity, coughing, labored breathing, rough hair coat. Calves exhibiting signs of illness and a body temperature greater than 104° F should be treated.
~ 14	Repeat vaccinations.	Follow label instructions or check with your consulting veterinarian for vaccines that should be boosted.
65-100	Re-implant calves (if needed).	Follow label instructions and check withdrawal periods for implanting.

Notes:

- a. Keep epinephrine on hand when vaccinating calves to treat for anaphylactic shock which may occur on rare occasions.
- b. Always read and follow all label instructions, precautions and withdrawal times on pharmaceutical products that are used on calves.

Time to Tighten the Belt

BRETT BARHAM, PH.D.

Every day, the news seems to be dominated by the rising costs of fuel and food. I doubt this is anything new for cattle producers, with the increasing costs of inputs on the farm. If you have not started to think about how this is going to affect your management, you'd better. Producers who adjust their management to meet the current conditions are much more likely to remain in business. Every producer needs to look at his or her operation under a

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microscope to determine areas of inefficiencies and to work on addressing those problems. Most producers will come to one of two solutions: 1) Keep outputs the same and reduce input costs, or 2) Keep input costs the same and increase outputs. Either of those options represent ways of increasing production efficiency. One thing is certain, detailed records to track expenses and income are important in either of those scenarios. Each producer can take those records and determine fairly

quickly if there are expenses that seem out of line. This is where your local county agents can be of assistance. They can compare your budgets and production levels to records that have been collected on different projects across the state.

Once you have done all you can to control costs, the only thing left to work on is the income side. To increase income, you must increase the pounds of calves sold and/or the value of the calves sold. In a Cattlemen's College presentation at the Beef Industry Annual Convention, Cattle-Fax analysts listed key value-added attributes, which they called the "stair steps to profitability."

- Performance history from the feedlot and packer adds \$2 to \$5 per hundredweight.
- Certification of preconditioning and weaning programs adds \$4 to \$8 per hundredweight.
- Source and age verification adds \$10 to \$25 per hundredweight.
- Verification of production practices that qualify for natural or premium programs adds \$3 to \$7 per hundredweight.

Cattle-Fax analysts also listed the "11 habits of high-return producers" in their Cattlemen's College presentation. These are:

1. Below-average annual cow costs.
2. Lower-than-average calf breakeven levels.
3. Lower feed costs.
4. Lower interest expense, less debt.
5. Lower general operating expenses.
6. Higher average weaning weights.
7. Higher conception rates.
8. More pounds weaned per cow exposed.
9. More high-quality bulls with good genetics.

10. Preventative herd-health programs.

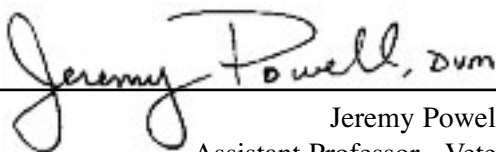
11. High-quality pastures to maintain nutritional requirements of the cow.

How many of these "good habits" do you have? As you can see, the first five items in this list deal with controlling costs. In most cases, controlling costs may be easier to accomplish than increasing income.



Sometimes increasing revenue requires spending money in some areas. Increasing expenditures can actually lower costs if you look at it in terms of cost per unit of production, such as per pound of weaned calf. If a \$20 expense results in 40 additional pounds of weaned calf, you come out ahead. Examples that would fall in this category include expenses for implants, preconditioning or better genetics.

The management changes needed to be successful in the current market and economy will be different for each individual producer. The one certainty will be that those who fail to change and optimize production will continue to face financial difficulties. This would be a great time to gather some records and spend some time with your local county agent and develop a plan that will help you to become more efficient.


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