

## **Cattle Business in Mississippi – September 2013 “Beef Production Strategies” article**

### **The Little Details on a Cattle Operation**

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#### **Little Things can Matter**

Most producers would assert that they do a pretty good job of managing their cattle operations. They implement many recommended production practices. Yet, beyond this, care must be taken to ensure that these efforts get the results that they are intended realize. This means not only doing the right thing, but also doing it the right way. Taking care to get the little implementation details done well can make a noticeable difference in production outcomes.

#### **Avoid the Weak Link**

The commonly quoted saying that a chain is only as strong as its weakest link has relevance for cattle operations. A producer can do many things right in a process and still not achieve the desired result. This happens because one or more critical aspects are overlooked or not managed properly.

Take animal health program planning and administration, for example. A producer can design an appropriate vaccination program, acquire vaccines and supplies from a reputable supplier, place vaccines in refrigerated storage as directed by product labels, and then administer the vaccines to the target animals with the end result being that the desired immune response in the vaccinated cattle is not obtained if there is a weak link in this chain of events.

Where could these weak links occur to make this process a waste of time and money? Here are some possibilities:

- 1) Vaccine was stored improperly before getting to the user.
- 2) The “refrigerated” storage that the cattle producer used was not within the appropriate temperature range (e.g., the old farm refrigerator did not keep it cold enough).
- 3) The vaccine was not administered at the appropriate time to the cattle.
- 4) Modified-live vaccine was placed in a syringe containing chemical residue from cleaning agents that rendered it ineffective.
- 5) Modified-live vaccine components were mixed, and then the leftover mixture was saved later use. Once mixed, these products need to be used within a few hours.
- 6) The vaccination administration technique was incorrect (e.g., the needle was pointed upward when the vaccine was released from syringe causing the product to leak excessively from the administration site).
- 7) The dosage was incorrect, or a booster shot was missed.

A case in point of this type of weak link actually occurring is documented in a recent University of Idaho study. Only one-third of beef cattle producers’ and animal health product retailers’ refrigerators were deemed acceptable for animal health product

storage. The majority of their refrigerators did not adequately maintain the recommended temperature range for animal health product storage. Exposure to temperatures outside of the recommended range can affect the efficacy (effectiveness) of animal health products such as vaccines. In fact, it has been suggested that the leading cause of immune response failure is improper vaccine storage. So, not only were the animal health products stored by the producers whose refrigerators did not function as needed potentially compromised, but it is also plausible that some of the producers with properly functioning refrigerators could have purchased vaccine from retailers with malfunctioning refrigerated storage units and also experience product effectiveness problems.

### **Critical Control Points**

Persons involved in the meat processing industry are likely familiar with the HACCP (Hazard Analysis and Critical Control Points) concept. It is a management system to address food safety through the analysis and control of various hazards at all stages of production, distribution, and other processes to the point of consumption. In essence, HACCP is a preventative system to control hazards in foods. It involves hazard analysis, critical control point identification, and establishment of critical limits, monitoring procedures, corrective actions, verification procedures, and documentation procedures. Critical control points are steps where control measures are needed to achieve the desired outcome. In the case of meat processing, a desired outcome may be food safety; whereas, a desired outcome in a cattle operation might be a particular rate of reproductive efficiency or average daily gain.

There are many important critical control points on cattle operations. A review of financial, economic, and biological data from domestic cow-calf producers in the late 1990's revealed a particularly crucial critical control point that is likely still very relevant today. Feed cost was determined to be responsible for over half of the herd-to-herd variation in profit. Thus, it was deemed to be a "critical" control point for improving herd profitability. This suggests that if cattle operation managers do all the little things right when it comes to managing feed cost, then they will take control of profitability in large part. By identifying and controlling other key control points, producers can also improve their chances of realizing desired production or financial outcomes.

### **Assess and Act**

So how do cattle producers put these concepts into practice? A logical place to start is by developing a farm-level procedure similar to HACCP. A self-audit of the beef cattle operation is one way to begin this self-monitoring exercise. Start by developing a thorough review checklist or set of questions for important processes on the operation. Then go through and answer these questions for the operation. From this self-audit, farm managers can determine where improvements or better controls are needed. Corrective actions must then be followed through with and then reviewed once again to determine future adjustments needed to continue fine-tuning production processes.

There are some existing self-assessments available that apply specifically to cattle operations. The Beef Quality Assurance program offers free cow-calf and stocker self-assessment booklets online to help producers benchmark their operations: [www.bqa.org/assessments.aspx](http://www.bqa.org/assessments.aspx). Producers may also want to develop their own assessment tools tailored to their specific resources, circumstances, and goals. Another

useful approach is to ask someone from outside the operation to assist in reviewing it. This helps provide a fresh set of ideas to be tapped that might not come to light from people engrained in the operation themselves.

To be effective over the long-term, producers must not view this approach as a one-time event that permanently “fixes” all of the inefficiencies or ineffective aspects of the operation. It must be done from time to time on a continuous basis to maintain and advance production efficiency and effectiveness. If producers do not continue to closely monitor and manage the various production processes, then they risk lapsing into wasteful or useless decisions that ultimately take away from productivity and profit.

Cattle operations could take a page from the playbook of industrial manufacturers. Just ask a manufacturer about what lean manufacturing can do to improve an operation. This approach can work for cattle operations, too. There are plenty of books and other references on lean manufacturing to learn more about it. Try searching online for “lean”, “six sigma”, “continuous improvement”, or “kaizen”.

For more information about beef cattle production, contact an office of the Mississippi State University Extension Service or visit [msucares.com/livestock/beef](https://msucares.com/livestock/beef).