

## **Cattle Business in Mississippi – January 2005**

### **“Stocker Cents” article**

### **Stocker Health Record Management**

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There are several pertinent questions that need to be looked before a new set of stocker calves steps off the truck. Should I use mass medication on these new calves? What treatment is the most effective for pneumonia? How can I reduce treatment expenses and maintain optimum health in my calves? These are very common questions and the answers are important as they greatly affect the profitability of the stocker operation. The challenge is that correct solutions to these issues vary depending upon the farm, management circumstances and individual groups of cattle. Maintenance of cattle health is a continuous process – treatments and procedures that work today may not work as well in the future because the disease causing agents, environmental conditions, and nature of illnesses changes over time. Farm health records are an invaluable tool for generating specific answers to create and maintain the best animal health program.

Maintaining appropriate records does not have to be difficult or done on a computer to provide value to the operation. Successful programs are based on collecting simple pieces of information that will be used to make a decision. Data on the disease status of the group, current treatment efficacy and appropriate identification of diseases are the main components of a useful health record system.

The disease status of the group is characterized by collecting pull rates (% of the pen or management group treated for illness), death rates, and the timing of the pulls. These numbers allow generation of a picture of the disease pattern that helps evaluation of the severity of disease, treatment decisions, and may lead toward refining the diagnosis of a specific disease. A relatively simple way to visually identify and track pulls is to use an ear notcher to cut out a section of the tag with each treatment; thus there will be no question as to if a calf has been treated before or how many times he has been treated.

There is no average pull rate for all cattle, expectations will change based on the initial risk classification of the group. In low risk cattle, pulls would be higher than expected if greater than 15-20%; while in high risk cattle, we may pull and treat as much as 35-60% of the pen.

Evaluation of treatment protocol efficacy is critical to appropriate pharmaceutical selection. Respiratory disease is the major disease entity in the stocker operation and numerous bacteria contribute to damaging the lungs. Individual antibiotics have a spectrum of bacteria they work best against, and susceptibility patterns may change over time. Treatment response rates are good indicators of how well our selected drugs

are working. We would like to see at least an 80% first treatment response or success rate. This means that of the initial pulls, we only have to re-pull 20% and treat them again for ongoing disease. In tracking the repull rate, it is important to properly classify repulls as greater than 21 days after the initial treatment. If a calf is pulled on day 10, treated with a successful outcome, then identified as ill again on day 40 this is not likely a treatment failure, but rather a new disease event.

The interrelationship between pull rates and death rates is also important. This can be measured by a statistic known as Case Fatality Rate (CFR). CFR is the number of animals that died divided by the number of animals that were treated. We would like to see a relatively low CFR (5-7%). Finding a CFR that is lower or higher than the goal may identify that something is not working as well as it should, but it doesn't tell us the specific problem. For example, if we have a really high number of animals that die compared to the number of treatments several things could have occurred. The treatment isn't as effective against the disease as we hoped, we are not pulling enough calves (there are sick cattle in the pen that were not treated), or we are not identifying illness in the cattle soon enough for the treatment to work. The CFR is a valuable number to tell us when something is not going right, but course of action to correct the discrepancy from our goal must be tailored to the individual farm and situation.

Having your veterinarian perform necropsies (or post-mortem autopsies) is a very valuable tool for specifically identifying disease agents and further classifying the reason the calf was pulled. As a producer, you may be reluctant to spend money on a calf that is already dead. However, a proper diagnosis from the necropsy may help form a specific treatment plan for the rest of the pen. This fact may actually make this calf one of the most valuable animals on the farm by prevention of further deaths. Necropsy findings help us classify the illness and further diagnostics can identify specific pathogens involved. Deciding if the disease is acute or chronic helps us properly allocate resources to the pen of origin. If we are faced with an acute disease process, we want to concentrate efforts on this pen to prevent further illness based on our findings. Cultures and other diagnostic tools allow us to determine the specific pathogen and can give us clues as to which treatments are most appropriate for the group.

Health records are a very valuable tool and they do not have to be difficult to provide information that increases profitability. Effort should be concentrated on only collecting and analyzing information that can be used to help make better decisions regarding treatment or prophylactic programs. The disease causing agents challenging stocker cattle vary from operation to operation and from group to group of cattle, but by maintaining farm specific information you can generate the optimum health program for your farm.