

HEALTH & HUSBANDRY

A well-balanced health management program

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Recently my son and I were looking for a used vehicle. We had a budget and a general idea of what we

wanted, but online searching quickly resulted in information overload. There are multiple trade-offs to consider, including size vs. gas mileage, purchase price vs. potential resale value, and the list could continue. We did not make headway until we came up with specific goals and the primary functionality we expected from the vehicle.

These challenges are analogous to those faced by ranches when designing the optimal preventative health program for their individual operations.

An ideal preventative health program strikes the balance between an appropriate level of cost and labor to implement while protecting the herd from specific diseases. There is no “one-size-fits-all” health program to fit every operation, and ideally the program would help avoid problems before they occur.

Designing a customized preventative wellness program for your herd is a great opportunity to work with your local experts, including your veterinarian and extension specialists. The final program should address your ranch goals and incorporate specific aspects of your geographic region so that it can be effectively implemented on your operation.

Start with the goals

Making complex preventative health decisions is all about trade-offs. The tools used to manage disease risk change based on the individual goals of each ranch. We all want healthy cattle, but we need to prioritize interventions based on specific

disease concerns and the risk for these diseases in each operation.

We want to think about the types of diseases that may be of concern (reproductive, respiratory, gastrointestinal), and how these diseases could enter the herd (chronic carrier animals, insect vectors, exposure to clinically ill animals from outside the ranch). Each of these criteria plays a role in determining the most effective manner to keep the herd healthy. We may need to create disease-management goals for each type of disease.

One of the first things to consider is which diseases are most important to your operation. A second consideration is to decide if the goal is to keep the disease completely out of the herd or to accept the presence of the disease, but minimize its effects.

While these two concepts seem similar, your specific conclusions can result in different and specific techniques implemented on your ranch compared to those implemented on other operations to address selected goals.

If your goal is to keep the disease out of the herd, you need to first determine whether your herd has infected animals. Evaluating herd production metrics is one manner to determine the current level of herd wellness (see the February 2020 column). Specific diagnostic tests can also be used to determine herd status to specific disease-causing agents.

If your herd is negative, then you will need to create a health management program that includes

testing and or quarantine of new arrivals.

An example of a disease to keep out of the herd is *Tritrichomonas foetus*, or “trich.” Trich is caused by a parasite that infects bulls and can cause pregnancy loss in cows. Because bulls are the primary carriers, a plan of purchasing tested, known negative bulls is important to keep the disease out of your herd.

Local risks

Understand the disease risks associated with your geographic area. Anaplasmosis is an example of a disease in which control mechanisms vary by region.

Anaplasmosis is a rickettsial (small organism similar to bacteria) disease that can cause adult cows to become very ill, as this parasite attacks the red blood cells. The pathogen is commonly transmitted by ticks and also by any mechanism that provides the opportunity to transfer blood between cows.

Depending on your location, you may have very different goals for controlling anaplasmosis. If you live in an area where anaplasmosis has not been previously identified, your goal may be to keep it out of your herd by focusing on biosecurity and diagnostic testing of new arrivals.

If you live in an area described as endemic (the disease is frequently identified), then your focus shifts to managing the disease and minimizing negative effects. If the disease is frequently present in your area, you may not be able to keep it out of the herd. Eliminating it from your herd may not be the optimal long-term strategy. Your goal may

shift to minimizing the effects through early detection and treatment.

Many diseases would fit into a similar classification system. You have to decide if your goal is to keep the disease out

completely by diagnostic testing and quarantine of new arrivals, or if your goal is to control the effect of the disease if it does get into your herd with early diagnosis and building immunity where possible.

Operational risks

Understand the disease risks of your own operational practices.

Operational goals vary based on each specific disease and specific practices on your ranch. While having a “closed” herd that does not import cattle certainly decreases disease risk, this is rarely possible. Additionally, cattle may move between segments of the operation based on grazing availability and, through this movement, contact outside herds. Importing bulls and pregnant heifers can increase risk of certain diseases if not managed properly, but may meet other operational goals.

The preventative health program should be calibrated based on the import practices and potential exposure of the herd and imports to cattle at high-risk for important diseases.

Conclusions

A balanced preventative wellness program is critical to a beef cow-calf ranch, and the plan should be created to match your specific operational needs. Working with your local veterinarian, you can create a plan to match your goals within the current context of your ranch, and you should plan to change your herd management over time as situations change. |



Editor's note: “Health & Husbandry” is a regular *Angus Beef Bulletin* column devoted to the care and well-being of the herd. Author Brad White is on faculty at Kansas State University College of Veterinary Medicine and serves as director of the Beef Cattle Institute. To learn more on this and other beef herd health topics, tune in to the weekly Beef Cattle Institute *Cattle Chat* podcast available on iTunes, GooglePlay or directly from KSUBCI.org.