Livestock Production

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Cost-Effective Parasite Strategy

Internal parasites living in your cattle could be stealing profits from your pocket and they are almost always present on a ranch.

So what can a cattleman do to fight this menace? To answer that question and develop a strategy for parasite control you need to answer several other questions first. Do my cattle have parasites? What parasites are likely to be found on my ranch (flukes, grubs, roundworms)? How heavy is the parasite burden in the cattle? What compounds could be used to combat parasites on my farm? How much will it cost to reduce parasite levels to an acceptable plane?

Do my cattle have parasites?

Almost all animals experience some degree of parasitism at one time or another. Even the majority of humans will experience parasitism. Growing calves and young stock are most susceptible to the potentially costly effects of internal parasites. Assume your calves have parasites and then always use an economical strategy to prevent financial loss. Considering weight gain differences, it can be assumed that a return of $3 to $5 will be realized for every $1 spent on parasite control. To realize this gain you must use a sound strategic deworming program.

The advice is not so clear-cut when it comes to adult cows and bulls. Research indicates that reproductive performance, milking ability, and weight maintenance are impaired by intestinal parasites in adult animals. These parameters are not as easily quantified as weight gain in a calf. The degree of loss would be directly related to the level of parasites living in the adult animal.

Adult animals can be potential shedders of parasite eggs for the young stock. However, many ranches have a significant number of adult animals with nondetectable levels of intestinal parasitism. These ranches will not realize an economic advantage when deworming adult cattle. When profit margins are slim, evaluate the cost versus benefit of an adult deworming program.

What parasites are on my ranch?

To determine what parasites are on your ranch, you should do two things. First, ask area veterinarians, extension agents, or other experts what parasites are prevalent in the area. Secondly, submit a fecal sample from cattle in your herd for analysis. Submit several samples from young cattle and a few older cows. This initial information will be crucial to guiding all your future decisions on parasite control. For example, certain areas have a habitat conducive to flukes or
lungworms. These parasites require special compounds for prevention and treatment. If these compounds are not included, all benefit from the other drugs will be lost.

**How heavy is the parasite load in my cattle?**

If clinical signs such as diarrhea, rough hair coat, and slow growth rates are present, then parasite loads have reached costly levels. However, most parasitism is not discovered through observation of clinical signs. This is where fecal samples are helpful. When submitting a sample, request a quantitative fecal egg count be performed. This procedure reveals the number of parasite eggs in a known quantity of feces. Interpretation of the data is subjective; however, this test can serve as a guideline for assessing parasite control methods.

**What compounds should be used to prevent and treat intestinal parasites?**

There are several factors to consider when choosing the correct compound.

1. What parasites will the compound work against versus what parasites are present? This is called efficacy.
2. What is the meat withholding period?
3. What is the cost?
4. What is the method of delivery?
5. What is the ability of the compound to kill the parasites during their immature stages of development?
6. How safe is the compound for the animal?

The ideal parasite control agent does not exist. Compounds that would effectively destroy all parasites may also kill the host or leave a deadly residue in the meat. Wide variation also exists in the cost and method of delivery. For example, a pour-on product can cost twice as much as an oral drench. The compounds may have near equal activity; however, ease of administration would dictate a pour-on be chosen. Make informed decisions on what is best for you. Unfortunately, no program works the same on every farm. If a ranch is to realize a $3 to $5 profit on every $1 spent deworming calves, professional advice should be sought. Your veterinarian or extension agent can help determine the correct compound and the timing of administering the compound for your ranch. Choosing the correct compound but administering it at the wrong time will result in a net loss.

**How much will it cost to reduce parasite levels to an acceptable plane?**

Many of the parasite control agents 90-99 percent effective against the targeted organism. Considering current market prices, you can deworm a 500-pound calf once for approximately $1.25 to $3.50. In most strategic deworming programs, a second and third dose are often recommended at three-week intervals. Alternatively, mineral blocks containing antiparasite compounds have been used to minimize handling.

A budget of approximately $5 to $7 is realistic for parasite control on each calf. If adult cows are dewormed and degrubbed annually in the fall, then each cow will cost approximately $6 to $8. Many ranches could get greater benefit from upgrading facilities, improving pastures, or having cow's pregnancy checked.

Price approximations are based on market prices for the most common antiparasite products.