

Haskell County Animal Hospital

Animal Health Update

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CATTLE PARASITISM AND THE COSTLY CATTLE FLUKE

Every cattleman is aware of the cost of parasitism caused by internal parasites. We know gastrointestinal parasites can be costly in all stages of beef production. Sometimes we overlook the fact that just because an animal may be free of detrimental internal parasites, that animal may never perform to its potential. Some internal parasites can permanently damage the gastrointestinal tract and lead to reduced weight gains. This affect is more pronounced when infestations occur in younger animals. The damage caused by these pathologic roundworms can affect that animal's performance for life.

Unfortunately, at the feedlot level we can have little if any effect on these situations. We can reduce any present parasitic infections but we cannot correct any damage done by earlier infestations.

Another parasite commonly misunderstood is the liver fluke. Flukes are endemic to the Gulf coast, Pacific Northwest and Northern Great Lakes areas. Adult flukes live in the bile ducts of the liver and their eggs pass from the bile ducts into the intestinal tract and then are passed in the manure. The life cycle will continue if the eggs are deposited in an area where water exists. Snails are also required as an intermediate host in the fluke life cycle. After development in the snail the infective stage is deposited on blades of grass. Cattle grazing in infected pasture then become infected.

Once ingested, immature flukes develop, penetrate the wall of the intestinal tract and reach the liver in 4-6 days. After arriving at the liver these immature flukes migrate aimlessly around the liver for 5-8 weeks and finally enter the bile ducts of the liver. Three to four weeks after entering the bile ducts, flukes mature into adults and begin to reproduce.

During the migration in the liver, the immature fluke feeds on liver tissue causing damage and scarring. The adult flukes, which reside in the bile ducts, cause tremendous damage and scarring to the walls of these ducts. Damage to the bile ducts is often called "pipe-stem liver" as this damage takes on the look and feel of a metal pipe.

As a result of the damage to the liver cattle will have reduced weight gains, poorer feed conversions and consumption and overall ill thrift. The USDA has estimated that up to 5% of slaughtered cattle are infected with liver flukes. Annually this means that up to 1.8 million livers are condemned due to flukes. The costs to the feeding industry in poor performance and liver condemnation are tremendous.

Treatments currently available for fluke infestations only aid in the reduction of the fluke level. There is not a treatment available that will clear an animal of flukes. Current treatments do a decent job of cleaning up the adult flukes in the liver but do not do a good job on the immature fluke. Even if we had an efficient flukicide, the liver can require up to 18 months to heal and therefore liver condemnation would still be an issue. This is why the use of flukicide at the feedyard is not a cost effective strategy.

Besides treatments, grazing management strategies can be utilized to lower the incidence of liver infestations. Fencing off or draining shallow water areas and the use of products that can decrease snail population of pastures can be cost effective in reducing infection rates.

Until we have better fluke treatments and management techniques that are utilized earlier in the production cycle, the effects of liver flukes will be costly to the cattle feeding industry.