

Come Grow with Us!

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Liver Fluke Management in Beef Cattle

Fasciola hepatica, or liver fluke is one of the most common internal parasites in beef cattle herds in Central and South Florida. These parasites thrive in areas where cattle graze year-round in low-lying pastures.

How do our cows get liver flukes?

After cattle consume forages contaminated with liver fluke encysted (coated dormant flukes) stage, the parasites molt and burrow through the lining of the intestine (Figure 1). They then make their way into the abdominal cavity and reach the liver where they will complete their adult life, mate and shed eggs. These eggs are then dispersed through the manure into our pastures where they hatch and make their way to fresh water snails. Once inside the snails, these larvae will further develop and emerge from the snail as young flukes and encyst on blades of grass. The completion of this life cycle requires 16 to 24 weeks.

Damage from heavy fluke burden

In low numbers, liver flukes are not a big problem. Young flukes can cause damage to the liver when these migrate through the organ. The liver is an organ that can restore itself, but large amounts of flukes can hinder organ function due to extensive damage. In cases where there are high numbers of liver flukes diarrhea, weight loss and jaundice (yellow mucous membranes) can be observed.

Liver flukes can also carry a bacterium called *Clostridium hemolyticum* into the animal tissue in which they feed on. These bacteria can colonize the liver producing toxins that destroy red blood cells, damage organs and possibly death. The name Redwater refers to the effect of these bacteria in destroying blood cells which can be apparent by red tint in the infected animal's urine.

As a result from heavy liver fluke burdens, infected animals can suffer decreased fertility due to the damage described previously.

Managing Liver Flukes in our Herd

Eliminating liver flukes in our climatic conditions would require the elimination of fresh water snails. Animals can be treated during late summer, ideally between August 15 and September 1 to eliminate flukes acquired during spring and early sum-

mer. Heat and rainfall usually reduces the amount of eggs in the pasture during summer months. Treatment during this time will result in eliminating adult flukes.

Products recommended for fluke management have proven to be ineffective in killing juvenile flukes (larvae that have not yet made it to the bile ducts in the liver). Clorsulon and albendazole products are the only approved drugs to control flukes in cattle in the US. A full dose of Clorsulon (7 mg/kg orally) has been proven effective against mature and immature flukes, but this product has no activity against nematodes. Albendazole on the other hand does. If Clorsulon is to be used it can be combined with benzimidazoles, levamisole and ivermectin. Clorsulon is also available in combination with ivermectin (Ivomec Plus®). Please consult with your veterinarian for more details on how to administer these drugs for optimal results.

In extremely wet years like this one, you can expect to have fluke problems. A second treatment during the spring may be cost effective to reduce adult numbers in the summer. Ditching and draining pastures can result in fewer snail populations on your farm. When possible, avoid turning your cattle herds into wet pastures during the fall months when there is more liver fluke shedding from snails into our forage.

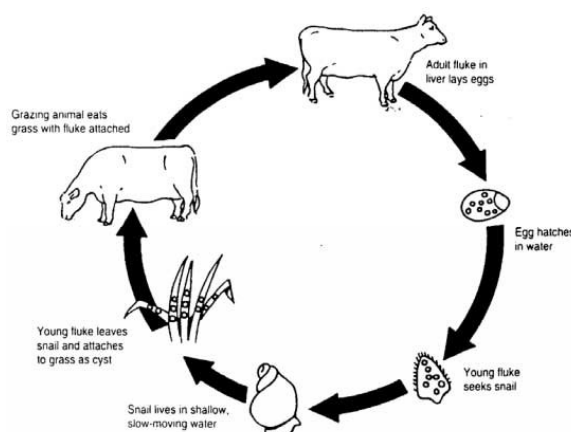


Figure 1. Liver fluke lifecycle. Source: Agriculture Victoria (Click image to enlarge).

For more information on the topic, please access our UF/IFAS Extension publication titled [Liver Fluke Control in Beef Cattle](#) (#VM120) online or call the UF/IFAS Extension office in Hardee County at 863-773-2164.