

Your Herd Might be Trich-Infected If ...

Story & photos by **Troy Smith**

If you see cows showing signs of estrus when they ought to be bred — your herd might be trich-infected.

If pregnancy testing results in an unusually high percentage of open cows — your herd might be trich-infected.

Or, if calving season went fine for the first 21 days, then the delivery rate slowed dramatically before speeding up again late in the season — your herd might be trich-infected.

Trichomoniasis, or trich, certainly isn't the only venereal disease that can cause abnormally low pregnancy rates or abortions. However, University of Missouri (MU) Extension Veterinarian Craig Payne says any one of these situations give cow-calf producers cause to consider whether trich might be at fault. There is even more reason to suspect trich if a producer buys, leases or borrows non-virgin bulls, or runs a breeding herd in common with those of other producers.

Though it occurs all across the United States, trich has often been considered a disease of the West, where multiple producers' herds may be intermingled while grazing public lands.

"Drought in the West has driven more cows eastward and that has been blamed for increased incidence of trich in the Midwest and East," Payne says. "It has become more prevalent in recent years. From 2004 to 2006, the number of positive tests in Missouri increased threefold. It has held fairly steady since then."

The disease caused by the protozoan *Trichomoniasis foetus* is rather insidious. It typically is introduced to a breeding herd by an infected bull. The bull became infected by mating with an infected cow, either from a neighboring herd or one that was purchased and also introduced as a replacement female. However, bulls show no outward symptoms. Semen quality and sexual behavior are not

hindered.

"In infected cows, trich does not interfere with conception. But it does interfere with the cow's ability to remain pregnant. The usual result is early embryonic death, but sometimes abortion occurs as late as the third trimester," Payne explains. "Pregnancy losses totaling 40% to 50% of the herd are not uncommon."



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Payne says trich usually is self-limiting in females. The infection is eliminated from the reproductive tracts of most cows after three heat cycles, followed by a period of natural immunity lasting about 15 months. In herds exposed to a long breeding season, an infected cow may lose an initial embryo and still conceive and remain pregnant later in the season. However, Payne says a very small percentage of cows do not clear the infection readily and become long-term carriers.

Occasionally, a cow develops pyometra (a collection of pus in the uterus) and cannot conceive.

Bulls, once they are infected, typically remain carriers for life. The *T. foetus* organism resides in the epithelial crypts (crevices and folds) of the tissue surface of the bull's penis, prepuce and sheath. While it has become popular to test young bulls for trich, at the time of purchase, virgin bulls are least likely to be infected. Generally, it's older bulls with breeding experience that have had opportunity to become infected.

If trich is suspected, Payne recommends testing all members of the current bull battery. There is no effective treatment for trich, so producers must control trich through management. Cull bulls identified by test as infected, and cull open cows.

"Take biosecurity measures. Test all bulls coming into the herd, using particular caution when leasing or borrowing bulls. Be careful when purchasing females, too, especially open or short-bred females," Payne advises.

Trich vaccine is available, and its use may be advisable in high-risk situations. Used according to label directions, it helps cows to clear an infection before her fetus is affected. However, Payne says vaccination does not prevent infection and it does not eliminate carrier cows.

Payne urges producers to consult a veterinarian or check with their state department of agriculture regarding trich testing requirements. The age at which bulls may be considered non-virgins and must be tested, testing protocols and interstate movement regulations vary considerably among states.

