

# BIOSECURITY: It's More Important Than You Think

by Sara Gugelmeyer

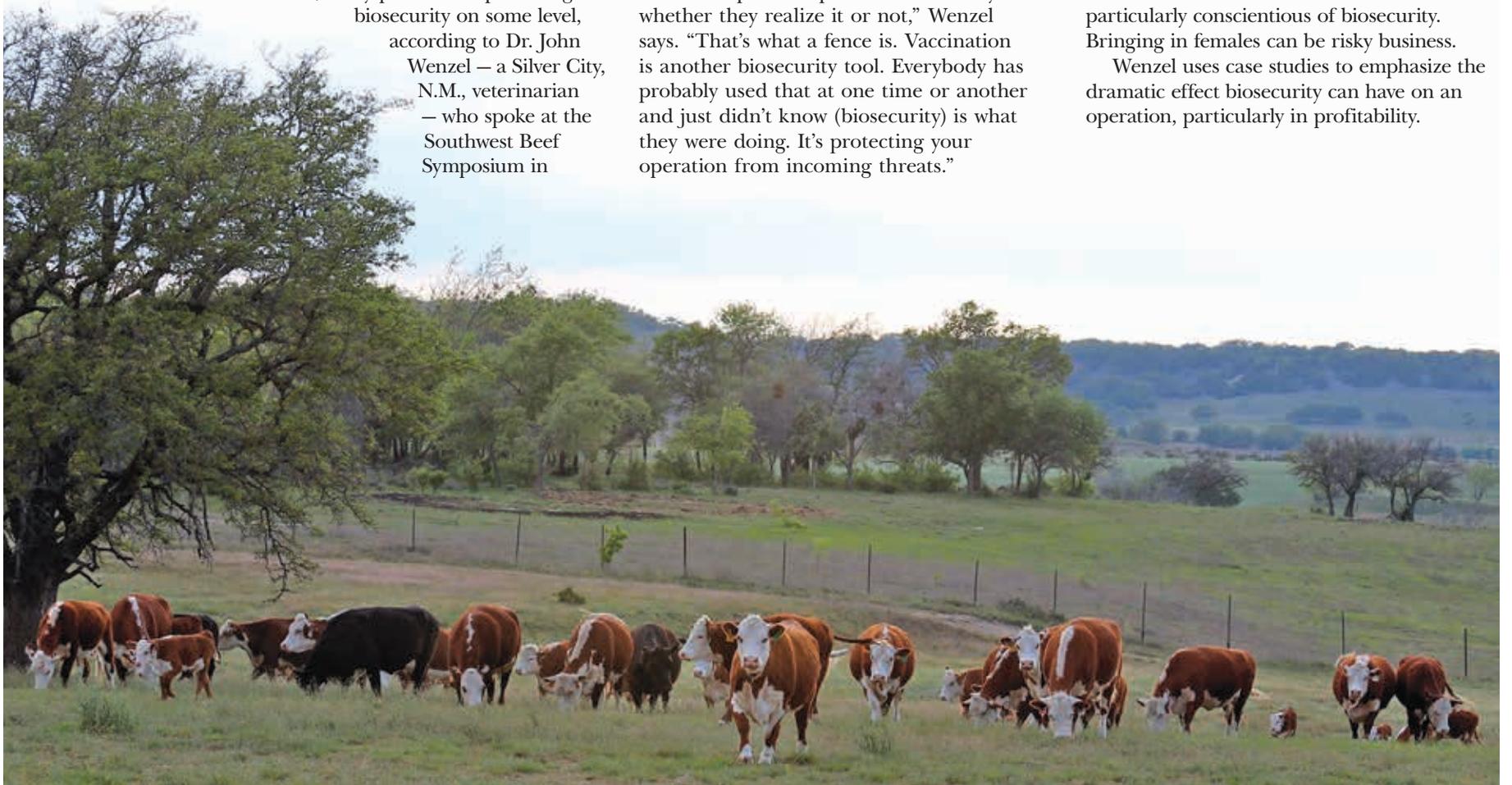
**B**iosecurity, in its basic sense, is much less complicated than one might think. In fact, every producer is practicing biosecurity on some level, according to Dr. John Wenzel — a Silver City, N.M., veterinarian — who spoke at the Southwest Beef Symposium in

Clayton, N.M., on this topic. He made it clear by example biosecurity is critical.

“Most operators practice biosecurity whether they realize it or not,” Wenzel says. “That’s what a fence is. Vaccination is another biosecurity tool. Everybody has probably used that at one time or another and just didn’t know (biosecurity) is what they were doing. It’s protecting your operation from incoming threats.”

Wenzel stresses that those cattlemen who destocked because of drought and may now be in the market for cows should be particularly conscientious of biosecurity. Bringing in females can be risky business.

Wenzel uses case studies to emphasize the dramatic effect biosecurity can have on an operation, particularly in profitability.



## Case Study 1

### Bad wreck that could have been worse

A client of Wenzel’s was looking to increase herd size. The client had a buyer put together a group of bred cows for him. There were 196 total, delivered to him in mid-January, that would calve by June 1.

“The guy had done a nice job of putting the cows together,” Wenzel explains. “They were nice cows, most were Texas origin.”

But by mid-June, the new owner called Wenzel with bad news. One-fourth of the cows hadn’t calved yet.

“He was concerned something was going on,” Wenzel says. “Also in talking to him, gathering history, he’d had calving difficulties. These were mature cows; you wouldn’t expect that. They’d had to assist some calvings, and things just didn’t go right. They lost a few calves that were stillborn, and had scour problems.”

So, Wenzel preg-checked all 52 cows that hadn’t calved yet. There were two that were bred and just hadn’t calved yet, but the rest were open.

“Some you could tell the uterus was enlarged, it was involuting, so fairly recently they had aborted and the others had lost their calf earlier in pregnancy,” Wenzel explains.

He drew blood to investigate why these problems would happen. And what he found was significant titers for BVD (Bovine Viral Diarrhea). He knew then that there had been some BVD presence in these cows.

Consequently, since the rancher was about to brand all the other calves, Wenzel asked for ear-notch samples. These allowed him to test the calves for BVD. He was shocked at the results. More than 70 were positive for BVD. Next in the investigation was to test the cows. Not one tested positive.

“So what does that tell us? We know this was an exposure problem,” Wenzel says. If the cows aren’t BVD-PI (Bovine Viral Diarrhea-Persistently Infected), the only way the calf could become BVD-PI is for the virus to have been passed through the placenta during days 40-105 of pregnancy.

“And when were these cows put together? Between 40 and 105 days of pregnancy. There were no signs in the cows. No illness. The guy that put the cows together did a good job. Was this his fault? No,” Wenzel says.

After retesting, only two of the calves were still positive. And they were two of the oldest calves.

“So here’s what we figure,” Wenzel says. “The dams were exposed when they were being assembled. Two passed the infection on to the calf through the placenta. Those PI calves were some of the first that were born. Because he was concerned about biosecurity, the owner had isolated the new cows and calves on pivots (irrigated crop circles). That concentrated those cattle so everything got exposed, which is, in part, why it turned out to be such a wreck. The bottom line is those two PI calves exposed the other calves and the cows in the field which created an active BVD infection. He ended up being short 62 calves out of 196. Does that get in your pocketbook?”

Wenzel adds, despite this being a huge loss, it could have been much worse.

“The fact that he kept those cows isolated from the rest of his herd was our saving grace,” he says. “The other cattle weren’t exposed. This would have been a really big deal had he commingled the cattle.”



## Case Study 2

### Disease outbreak caught before it turned into a bad wreck

One of Wenzel's clients, knowing that trich was becoming more prevalent in his area, decided he should be doing something about it. It was in the fall, so he thought he'd test his cull bulls. His father, though, convinced him that testing just them was silly; if he was going to test, he should test them all. So, he trich tested all his herd bulls used on mature cows. Out of 55 bulls, one was positive.

"That's a big deal with trich," Wenzel says. "So just to be safe, we re-tested and confirmed he was positive."

Next, they decided to test their 15 heifer bulls. Four were confirmed positive.

"What didn't make any sense," Wenzel says, "was that they had already pregged their heifers and had a 92% conception rate. That doesn't fit with trich, you wouldn't expect that."

Upon gathering more history, though, Wenzel learned that late in the breeding season, the cattleman had put the heifers and cows

together to get them closer to the homeplace in preparation for fall work. At that point, most everything was already bred, but the bulls were still out. It was also later learned that the pasture where the heifers were kept was neighbored by a different rancher who ran cattle of unknown origin. Some strays had gotten across the fence at some point.

Wenzel explains, "But it happened so late in the breeding season most were bred up so it didn't affect conception rates. The take-home message here is had he not trich tested those bulls what would he have done the next year? Turned them all out on his cow herd. And guess what he'd of had? One great big wreck. So the fact that he ended up testing all his bulls saved him. There's no telling how much money it saved that outfit, because they got the disease diagnosed before they turned them out amongst themselves."

#### Testing is critical

In order to prevent these types of occurrences, Wenzel stresses the importance of biosecurity. The most important procedures related to BVD are to avoid purchasing PI cattle. To do that, replacement females and bulls need to be tested. Wenzel encourages all seedstock producers to test cattle before sale and urges his clients to purchase only seedstock that has been tested. Calves from cows already in the cow herd can be tested for BVD-PI. And then a good

vaccination program can help reduce the incidence of BVD-PI.

Biosecurity measures to avoid trich outbreaks include being absolutely sure all bulls are negative with a polymerase chain reaction (PCR) genetic-based trich test. If the producer is buying replacement females of unknown origin, he should buy only bred cows or bred heifers. It's important to buy females from known and trustworthy sources, Wenzel says.

As evidenced by Wenzel's case studies, biosecurity might be as simple as screening

incoming cattle and maintaining good fences, but a biosecurity breach can mean devastation in profitability. **HW**

**Editor's Note:** For more on trich, check out "Trich Update" in the March 2011 issue of Hereford World. For more on BVD-PI, check out the November 2006 Hereford World article "BVD: A Cattleman's Perspective." Both issues can be accessed on [HerefordWorld.org](http://HerefordWorld.org).

### Meet Dr. Wenzel

Dr. John C. Wenzel attended New Mexico State University (NMSU) graduating with a bachelor's degree in agriculture in 1982. He attended Kansas State University College of Veterinary Medicine and graduated in 1986 and then joined a mixed practice in the Albuquerque, N.M., area. In 1987 Dr. Wenzel moved to the Silver City, N.M., area and joined a rural mixed

animal practice. His professional career has concentrated on cow-calf medicine and preventative health programs for livestock producers in southwest New Mexico. In 2006 he joined the faculty at NMSU in the Department of Extension Animal Sciences and Natural Resources as the state's first Extension veterinarian. **HW**

