

Avian Influenza: Understanding the virus and the importance of biosecurity

On Dec. 14th the USDA announced that Avian Influenza was officially found in a dairy herd in Dodge County. This is the first positive case in Wisconsin since testing began just about a year ago.

Understanding this Avian Flu virus in simple terms. Basically, here's what you need to know.

- Avian Flu is basically a disease of wild waterfowl, especially those that migrate. Migration allows for spread and mutation, and the flu virus loves to mix and match and mutate. This is why vaccines don't work very well. **The virus changes or mutates a lot.**
- There are all these letters and numbers (H5N1) and it's just a way of identifying the virus and its relatives, like a family tree. The H's are all related and then they break them down to the next group of cousins. All that you really need to know is that the strains that are in **cattle are down to the B's and D's.**
- This all started when a H5N1 strain, with the **B (Bad) subtype**, mutated and infected cows and made them sick. It probably came from geese. **It is primarily spread in milk** and parts of the country that trade cows all the time have the biggest problem. I'm amazed at the number of lactating cows that move from farm to farm in some states like Texas and California. We're talking about thousands of cows moving monthly. Poor milking procedures and hygiene (which our clients are not guilty of), is where it mainly spreads cow to cow and herd to herd.
- There is one human fatality from the **B strain**. This excites the government.
- The USDA started bulk tank surveillance for all the strains in every herd. **Both B and D strains show up in the bulk tank.**
- Wild birds spread the virus. Domestic poultry get the virus, but the flock all dies, so it's kind of a dead end for viral spreading.
- **The Dodge County herd had the D strain.** Nothing was sick. No cows were purchased. It is a very well managed family farm. The theory is that a dead bird may have gotten into the feed, or perhaps a sick bird defecated in the feed.
- When the disease was detected in the bulk tank, because of antibodies present, it can be estimated the disease was already there three weeks or longer.
- The D strain circulates in the herd, everyone gets better and it normally disappears.
- **Because the D strain doesn't cause sick animals, and bulk tank screening has been going on less than a year, we can speculate the D strain infection may have randomly infected herds for years.** The D strain may have occurred in herds for decades and died out. Every old vet can remember herd disease outbreaks that the final diagnosis was kind of a guess.
- We want the B strain to stay out of Wisconsin, so biosecurity and screening is important. Biosecurity is an issue to discuss with your herd vet.

For more information about Avian Influenza or questions about updating biosecurity on your farm, please reach out to your herd vet or contact the clinic at 920-324-3831.

Starling Traps Used on Farm

Pictured at right is a starling trap that one of our clients had built by a carpenter and is now using on their farm.

The design is simple, like a fish trap, with bait inside. The birds can only enter from a narrow entrance that is centered down the top so the birds once in the trap and flying up fly to the corners of the trap. Killing and disposing of the starlings after they are captured is an issue. Starlings can also be poisoned with USDA controlled poison.

The poison and the trap work best when there is snow cover because it forces birds to farms for all their food. The farmer with these traps is moving them around the buildings and outside and near the silage pad didn't attract birds, but in the buildings, they are working.



Hardware Disease Can Still Occur

A recent incident on one of our farms is a stark reminder that some old problems don't always disappear.

A tire sidewall with steel belting was accidentally dropped in a mixer. Four cows died with acute abdomen infections and the first one for necropsy was hardware from the tire belting. The wires in the sidewalls are sharp, and they can penetrate any part of the cow's digestive tract, causing peritonitis. They are small and light enough that magnets located in mixers won't catch them. A cow magnet would be a preventative, but magnets have a cost and with the magnets included in mixers this is a rare situation. If a tire sidewall ends up in a mix, it would probably be best to discard all the mix.

In my experience, the biggest risk was always in cattle with access to dirt pastures. The big three problems were nails from feed bunks, wire pieces from building fence, and the worst cause of hardware were the little wire clips used to hold the wire to a ceramic insulator. One end would break off where the wire clip was bent around the barbwire. Cattle were always interested in the green plants just under the fence and licking up wire pieces in the process.

Research Findings on Castration Age Benefits

Recent research changed one of my long-standing misconceptions on castration ages.

I have always advocated for early castration, within the first month of life was my goal, and when I did monthly herd checks we just castrated while there.

But I always thought there was some advantage to leaving bulls intact for 3 or 4 months for increased gain.

I didn't think it through because the testicles don't produce testosterone (which increases muscling) until puberty. The research shows that the stress of later age castration is much more severe with weight loss due to cattle going off feed.

I was involved years ago with a group of mixed heifer/bull feeders, 450 pounds, Hereford cross, that came from out west and we processed them right off the truck. They were in tough shape. They had probably been through a sale barn or two and sorted once or twice. We had a dozen deaths out of 400 and every death was a castrated steer. No heifer deaths.

Here's a fact: castration in the first week of age produces the most profitable steer at the time of sale and has the least stress on the calves.