



A Producer's Perspective and Decision to Proactively Eliminate Preventative Use of Category III Antimicrobials

Nathan Martens

NATHAN MARTENS IS A THIRD GENERATION BROILER PRODUCER OPERATING IN MANITOBA.

HE, ALONG WITH HIS WIFE AND CHILDREN, HAVE BEEN RUNNING A LARGE BROILER OPERATION FOR THE LAST ELEVEN YEARS. THEIR FARM CONSISTS OF BARN UNDER DIFFERENT PROGRAMS, WITH 60% OF THE BIRDS BEING RAISED CONVENTIONALLY AND THE REMAINING 40% BEING RUN UNDER A RAISED WITHOUT ANTIBIOTICS PROGRAM.

On the Martens family operation, there is a specific focus on reducing the use of antimicrobials they use preventatively, while still maintaining the health and welfare of the flock. Nathan wants to preserve antimicrobials so they will still be effective when he really needs them to treat illness in his birds. Based on this philosophy, Nathan and his family proactively eliminated the preventative use of Category III antimicrobials over a year ago; ahead of changes to the requirements surrounding antimicrobial use.

What was it like removing Category III antimicrobials from your operation?

Nathan mentioned that the transition has been pretty smooth for them, however, he and industry partners had to put a lot of work in ahead of time to prepare. At the time of transition, they were worried about how it would go, but they know the key to success was to

focus on strong animal husbandry. Specifically, he highlighted the importance of gut health, water quality, and air quality. The role his advisors had in helping his birds perform at their best was also extremely valuable, ensuring they are off to a good start, right from placement to help eliminate the need for Category III antimicrobials on his operation. This optimizes chick health and prepares them to overcome any challenges in the growing period. He mentioned that overall, the environment adjustments made improved the health of the birds, their bottom line, and thought it would be a beneficial and positive step for the industry.

1 Keys to success at chick placement

When it came to chick placement, Nathan had a specific barn set-up that worked well on his operation to get chicks off to a good start. He tried to make the environment as comfortable as possible for the birds

by ensuring that smooth, soft, and clean, fresh bedding was put down once the barn is disinfected and maintaining high air quality through ceiling inlets helped to reduce pathogens in the barn. He also ensured that chicks had ample access to feed by putting a large amount down on paper to get chicks to eat a few meals in the first few hours of placement. Another step he found improved intake of feed in the chicks was to ensure that the barn had bright lighting. Nathan again mentioned the importance of sanitation, especially the sanitation of water lines and waterers where he ensured that everything was clean and disinfected before the chicks arrived.

2 Improving air quality

Air quality and air patterns were identified by Nathan as the top issue that they had to address when moving away from Category III antimicrobials. He mentioned that he made sure air was only coming through inlets, not through cracks, and no drafts were present, and that the inlets were at the optimal settings so that the right amount of static pressure contributed to even air flow in the barn. He found that any type of air coming in (too much or too little) caused wet litter, or a damper location, where the birds will be deterred by it, or in some cases, attracted to it. Maintaining optimum static pressure, to have even air flow throughout the barn environment, is something they have worked hard to address. It took some trial and error, but they've really fine-tuned this and are reaping the benefits as a result.

3 Improving gut health

One of the keys to success Nathan found when removing Category III antimicrobials was to optimize gut health. He did this by ensuring that external disease pressure was low through the implementation of excellent biosecurity practices and pest control, while minimizing environmental stress. Specifically, he found that time spent cleaning in between flocks was a key to success. Nathan also found that feed additives, which he worked on with his advisors, have been helpful in promoting colonization of good bacteria.

4 Ensuring water quality

The Martens family spent a lot of time and effort ensuring the quality of the water being administered to their birds was high. They clean the lines between flocks using a rotation of stabilized peroxide, chlorine, acid, and detergents to ensure effectiveness against many different pathogens. Nathan also mentioned they do frequent monitoring of pH levels to assist with the effectiveness of chlorination and improve gut health, particularly with the RWA production.

5 Using your advisors

Nathan mentioned that one of the reasons for the success of his operation is his close relationship with his veterinarian, and other industry partners; especially his nutritionist and those responsible for the health of the birds. He talked to his advisors frequently, up to several times per month, and have them routinely visit the farm as well. He found this constant contact led to improvements in the environment, better evaluation of bird health, and overall improved management practices. It's made troubleshooting issues when they arise easier, and allowed for a lot more proactive planning.

6 Using technology in conjunction with effective monitoring

Although Nathan mentioned that nothing replaced being in the barn to see the birds and their behaviour, he used many complex environmental controllers to monitor key parameters. He found temperature, humidity, and carbon dioxide levels were important to monitor and if he got alerts that these parameters were outside their ideal ranges, he would act right away to ensure the best air quality and environmental conditions in the barn.

“ Early management after placement is the most important time to put your focus on. ”



Parting advice for conventional producers preparing for Category III removal

After going through the removal of Category III, Nathan had three key suggestions to ensuring a smooth transition:

1. **Early management after placement** is the most important time to put your focus on. In the first 3 days, ensuring they're comfortable and have adequate feed and water is critical.
2. Producers know most of this information already; it's about **attention to detail** and being a bit more focused on things you can alter and manage.
3. Highly recommends frequently getting **other sets of eyes on your barn and flocks**. There are things you just don't see that someone else might quickly notice that needs to be changed or discussed.

NATHAN AND STACY MARTENS
WITH THEIR SIX KIDS OUTSIDE
THEIR HOME IN MANITOBA.