



A Producer's Perspective on the "Why" Behind Antimicrobial Reduction

Ray Nickel

RAY NICKEL IS A THIRD GENERATION FRASER VALLEY FARMER, AND PART OF THE LEADERSHIP TEAM AT CROSSBORDER HOLDINGS. RAY IS ALSO A PROUD DIRECTOR ON THE BRITISH COLUMBIA CHICKEN MARKETING BOARD, WHERE HE REPRESENTS THE BRITISH COLUMBIA POULTRY INDUSTRY AT A PROVINCIAL AND NATIONAL LEVEL.



Crossborder Holdings is family run, and raises table eggs, turkey, and chicken. Their broiler operation raises a 38-39 day bird, placing around 140-150,000 chicks per cycle in three different double-deck barns to produce roughly 320,000 kg of chicken per cycle. Ray has a small team that helps make this all happen, with dedicated staff for climate controls and overarching facility management, as well as mechanical and functional aspects. This team structure helps free Ray up to oversee operations across all facilities.

STAYING CONSISTENT THROUGH ANTIMICROBIAL USE REDUCTION

When it comes to farm goals, Ray holds consistency at the top. Staying in the black when you've got a thin margin means the more consistent you can be, the better. Over the years, things have generally gone

pretty well, but they've certainly had their challenges. Coccidiosis in particular is a pressure they need to be vigilant about, and one of the biggest culprits for performance differentials from cycle-to-cycle. One of the more significant external challenges to consistency has been the industry changes relating to the use of antimicrobials; from the 2014 elimination of Category I medications, to the 2018 elimination of the preventative use of Category II drugs, which will soon include Category III medications only being available for treatment purposes. Ray is a strong supporter of eliminating the indiscriminate use of antimicrobials because he knows Canadian chicken farmers need to do their part in preserving the effectiveness of drugs for humans and animals. However, he also knows firsthand that these changes can have ripple effects for producers if management parameters are not carefully monitored.

Ray's view is that the industry needs to continue with a science-based approach to change, and that producers can do their part by being targeted, strategic, and informed about how and when they are using antimicrobials. Fortunately for Crossborder Holdings, they were able to manage better than expected through the 2018 changes relating to Category II antimicrobials. And from experience, he knows that the removal of Category III drugs from preventative use is going to require his team to double down on these strategies to make it work. He's losing another tool in his toolbox, which means attention to detail is more important than ever. When reflecting on what's led to his previous success, and how he anticipates being ready for future changes, a few things come to mind.

1 Leveraging advisors for a tailored strategy.

Ray knows that a lot of producers rely heavily on hatcheries and feed companies to help them place and grow birds. However, his experience has been that these programs aren't as tailored as they need to be for optimal results. For example, he knows there is a lot of coccidiosis pressure in the Fraser Valley, and that those pressures differ from operation to operation, so a one size fits all approach can't work. He felt he needed a tailored feed and medication strategy to achieve results. So, he and a few producers in the area put their resources together to set up a retainer directly with a veterinary clinic, which presents them with the opportunity to work with animal health experts to get guidance when needed. They took a similar approach to getting a nutritionist team on to support them. Integrating these experts into their team has helped them evaluate their existing programs and practices, determine what's working and what's not, and come up with tailored actions to improve. They're using these external consultants in concert with feedback from their feed, hatchery, and processing partners to get a more complete picture of what strategies they can use to achieve their goals.

2 Adopting alternative products and strategies.

Ray's team has also implemented a vaccine program as part of a larger health management strategy in combination with on-farm medications, a focus on gut health promotion, and broader management. Experience has taught him that the Fraser Valley struggles with inclusion body hepatitis (IBH) a lot, and while the breeder vaccine program has really helped, he's had to pay close attention to birds on the farm. They've implemented a vaccine program to help keep the challenge down and the risk low. Ray and his team have also been thinking about how they can leverage a coccidiosis vaccine periodically to help address the microflora and oocyst levels in the barn. Based on the work he and his animal health team are doing measuring load levels, they are looking at running a number of cycles with a vaccine to change the microflora in the barns and in doing so, their coccidiosis treatments will be more effective.

3 You manage what you measure.

Ray's initial motivation to get more advisors on board was because he was having higher than average 7-day mortality and inconsistent weights. They knew they had some litter quality issues; it was too wet and they didn't have enough control over air quality. So, they worked with their advisors to take an in-depth look at what they could manage differently. They started by monitoring litter more consistently to gauge air quality and movement issues, and trialed different fan and inlet settings to keep litter dry. They also started looking at their birds more closely, and on a more consistent basis. They implemented on-farm post-mortems and lesion scoring to assess their gut health problems. They began oocyst scoring in the litter and seeing how it progressed through the production cycle. They also started looking at water quality, from their lines all the way to the source. This is where a lot of their issues stemmed from. They found a lot more bacterial pressure than they expected due to biofilms. They're on city water for some facilities and well water for others.

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It became clear they needed to do more systematic water line cleaning to ensure they weren't getting complications with septicemia and overwhelming bacteria levels. Their veterinary team helped them develop a tailored water sanitization protocol and they managed to get things back under control. Ray's team has implemented a more targeted monitoring program now to keep an eye on these things in the barn. He feels it's helping to highlight when he should intervene with a targeted treatment and offer a more strategic and carefully controlled approach to using antimicrobials. A focus on monitoring has also helped pick up on new issues, like a recent spike in mortality at 14 days that they have had over the last 3 cycles. After reviewing the numbers and discussing with his animal health team, they're modifying their pre-brooding sanitizing protocol in between cycles and reassessing every flock.

At the end of the day, there are only so many changes you can implement at once. What's become clear to Ray is that you need to be open to change, work with a team of experts to help guide your understanding of what's working, what can change, and how, and to keep focused on the details. In many ways, the changes to antimicrobial use are putting more focus back on producers in terms of husbandry. And Ray knows that success is going to come for those who are prepared to plan, act, monitor, and repeat.

Ray and Linda Nickel with their three kids Luke, Lexi and Noah outside of their home in Abbotsford, British-Columbia.