by John Goeser

## Develop a balanced plan to thwart toxins



EVERY new year comes with new diet fads. Some people adopt diets that can be sustained for a short period of time before crashing. Others take on an annual cleanse, in which they consume odd concoctions of liquids or supplements to supposedly clear their body of toxins and other bad materials.

In both cases, the New Year's resolution would be better focused on balancing calories in versus calories out. A little added exercise and calorie output can go a long way.

Back to the cleanse fad, which is lunacy in my opinion. I wholeheartedly trust that the Food and Drug Administration keeps the general public from experiencing issues relating to foods containing toxins. Dairy rations and feeds can be different, though, as feeds included in the total mixed ration (TMR) can contain toxins at times.

## Feed can be different

Before diving in to find out if your feed has issues, understand that toxin is a generic term describing any toxic compound. Toxins can include mycotoxins and other compounds that may harm animal health and performance.

For awareness purposes, understand there are many potential toxic compounds that could be present in dairy rations. However, in my experience, there are many situations where mycotoxins are blamed for health and performance challenges that stem from elsewhere, including management.

It is important to understand mycotoxin and toxin levels, but also to pragmatically address a positive mycotoxin result with your feed. Even with many years experience, and newer and more advanced laboratory testing equipment coming online, mycotoxin mitigation remains a confusing topic.

The overall contamination level and impact toxins may have on your farm varies from year to year, and

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region to region. Beyond annual or regional trends, and on a smaller scale, there also can be farms within miles of one another that experience very different contamination levels and feed hygiene characteristics.

The differences between neighboring farms can come from issues in the field, where poor agronomic practices or disease detract from plant health. Differences between farms also can be attributed to silage management practices in the specific areas relating to poor ensiling efficacy or aerobic stability upon feedout. Each of these two areas warrant discussion if you think you have contamination or mycotoxins in your feed. With this all said, mycotoxins may not be the root of your challenge, and the aim here is to help your farm sort through the fog.

If you suspect your ration contains mycotoxins, first consult with your nutritionist and veterinarian. Approach the concern as a team and bring in those you trust to help navigate the situation. To gain a greater context, consult with neighboring farms and ask if they've experienced challenges. Further, reach out to several respected extension or industry professionals to ask for their recent experience. You may be surprised how different one versus another's perceptions and experiences with mycotoxins are.

## **Check with others**

For example, in a recent discussion with my colleague Kory Duerst, he passed along that the perceived mycotoxin issues on a local level ranged from none to severe. That was according to his contacts.

If you decide to proceed forward in checking your feed for mycotoxins, recognize that mycotoxins and contaminant compounds are not easily determined through tests. I learned from Lon Whitlow a couple of years ago that just a few highly contaminated kernels of corn in a bushel can equate to a concerning mycotoxin test result. However, does a few bad kernels of corn in a bushel mean you shouldn't feed the corn? Probably not, and a second myco-

**THE TMR MAY BE THE BEST** place to sample feed if you suspect toxins.

toxin test in this case would clear up the perceived issue.

When testing for mycotoxins, start with sampling the TMR fed to your high cows. Sampling the TMR is a good starting point for two reasons. The first reason is that dietary mycotoxin guidelines are written for the TMR. The second reason to sample the ration accounts for the fact that the TMR represents the blend of all potentially contaminated feeds.

Hot spots in silos, commodities, or grain is a reality. But sampling the mixed ration reduces the likelihood of getting a bad sample due to a handful, or few kernels, of highly contaminated feed.

## Give it a try

Sampling the TMR can seem daunting. In fact, some perceive this to be a fruitless task, but I disagree. Start with a calf pail in hand and some basic training. Your nutritionist will be a great help here and may offer to take on the task for you. If you are looking for outside support and training, a number of years ago I recorded a video detailing how to collect a TMR sample that can be viewed via this link: on.hoards.com/TMRsample.

If another industry professional samples for your farm, ensure you and your nutritionist understand their sampling protocol and objectives. It can be valuable to work alongside these allied industry experts when taking the sample, to learn from them, and to carry discussion around their experiences.

Lastly, when the results come back, interpret them cautiously. As I mentioned previously, there are many different feed hygienic risk factors that can contribute to performance or health challenges on your farm. In feed hygiene cases where I'm brought in, we typically explore more than mycotoxins.

For example, mold and yeast growth or bacterial growth can be contributing factors. In fact, undesirable bacterial growth has been a common theme lately, and we've found substantial feed cleanliness opportunities.

Further, management stressors such as variable feed delivery or push ups, or nutritional stressors such as poor grain and starch digestibility, can contribute to variable digestion and performance. Check the risk level in these opportunity areas alongside mycotoxins and prioritize your action plan accordingly.

Circling back to the new year diet fads and trends, avoid falling into a trap based upon what others are talking about or joining the latest craze. Continue to work with your trusted advisory team, and put a balanced plan together for your herd if you think you have toxins in your feed.