

The Poisoned Chalice

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*“Bloody instructions, which, being taught, return
To plague th' inventor: this even-handed justice
Commends the ingredients of our poisoned chalice
To our own lips.”* Macbeth Act I, Scene 7

The poisoned chalice ... the term, taken from a Shakespeare play, means a thing or situation that initially seems beneficial, but ultimately turns out to be bad. In Macbeth's soliloquy, he is essentially having second thoughts – initially, overthrowing Duncan and assuming the throne is all good, but now, he is beginning to see the myriad of negative consequences. I find this to be a very fitting analogy for the practice of buying in cattle of unknown history – Everyone needs the milk, and more cows means more milk... so everything's good, right? Well, maybe not – maybe that beautiful looking cow (“the chalice”) is a disease carrier (“poisoned”).

Recently, I made a call to see multiple sick cows at a herd. First cow – 104 °F fever, breathing heavily, nasal discharge, harsh lungs. Second cow – 103.9 °F, breathing heavily, nasal discharge, harsh lungs. You can guess what was wrong with the third cow. And on, and on. After some veterinary sleuthing, I came to discover that the producer in question, we'll call him Mac, had purchased 4 early lactation cows and immediately began milking and housing them with his herd. Mac didn't know much about the farm of origin, didn't ask about disease history or test them prior to bringing them home, and had fallen off the rails in getting vaccines into his herd. He needed milk yesterday, and milk he got; however, he also needed to treat a significant number of cows in his herd for pneumonia. Beware the poisoned chalice.

So, how can this situation be avoided? Biosecurity. It sounds like a highly technical term, but it is simply a set of practices that reduce the introduction and spread of infectious disease between animals, groups of animals, farms, and geographic areas. For Mac, there are several practices that could have minimized the risk of experiencing such a significant outbreak in his cows (Recommendations based on: CFIA, 2013). Mac needs to treat his herd like a fortress – intruders must not enter, infectious disease is not welcome! To start, one of the most important questions you should ask yourself is ...

Do I need to purchase animals?

Over the long term, the best practices would be to limit the number of purchased animals (from a minimal number of known farms) while focusing on cow longevity and heifer health and growth. Cows remain productive longer, and when you need to replace them, you have sufficient heifer inventory to do so from within. If you must purchase animals in, limit the number of sources and ...

Know your herd of origin

First and foremost, whenever you buy in cows you should source them from reputable herds with which you are familiar. This means asking a lot of questions: Are they an open herd? Do they vaccinate their animals? What do they use, when do they use it, and who gets vaccinated? What is health like on the farm? Does this farm's health management strategy and health status match

mine? You should source your animals directly from the herd of origin and not comingled options (i.e. dealers or livestock auctions). It also follows to ...

Know the cow you're buying in

Along with knowing the herd of origin, a thorough knowledge of the health history of your new addition is vital and requires communication and coordination between buyer and seller. What is her breeding and disease history? Can you look at her records to verify? Has she been vaccinated? If so, with what product? Review records and make an informed decision on risk.

So, now that you've looked at the health history of your new addition (bought from a reputable source, of course), when the animal arrives at your farm you should ...

Segregate, Isolate, and Monitor

All incoming animals need a place of their own prior to comingling with your herd. This means setting up an isolation pen/area where new additions cannot contact the rest of the herd. This means no sharing of feed, water, bedding, equipment, and facilities between incoming animals and your herd. Some infectious diseases could take time to express themselves in visible sickness (incubation period), therefore incoming animals should remain in isolation for a period of 2-4 weeks. While in isolation, the health status of these animals should be monitored on a routine basis. In addition, you can use this time to ...

Test, vaccinate, and/or treat

Your new animal might look great, but several infections can be silent or subclinical in nature. Bovine viral diarrhea virus, Infectious Bovine Rhinotracheitis, Johnes, Neospora, mastitis pathogens, Leukosis ... during isolation, tests can be run for all these diseases and more – again, your veterinarian can guide you through your testing options. In addition, isolation time is the perfect opportunity to vaccinate them in accordance with your herd health plan. Any animal that displays clinical signs of illness should be treated promptly in accordance with farm protocols.

Avoid the poisoned chalice ...

By investing the time and energy in adopting these biosecurity practices, you can minimize the risk of introducing infectious disease to your herd. Success depends on the communication and cooperation between many players – you, your veterinarian, farm workers, family members, selling producers – everyone needs to understand the importance of biosecurity to ensure herd health.

References:

CFIA. 2013. Biosecurity for Canadian Dairy Farms: National Standard. 1-52 pp.

At: http://www.inspection.gc.ca/DAM/DAM-animals-animaux/STAGING/text-texte/terr_biosec_dairy_standards_1360169547274_eng.pdf