

An ounce of prevention is worth a pound of cure. I think anyone farming long enough knows these words to ring true in a variety of ways. From going over your equipment in the down season to double chaining the gate the heifers love to play with. We have all done it.

But, with the focus on vet medicine, if you have ever turned to vaccines after an outbreak to prevent future issues or listened to your wise Heartland vet before you even had an issue, we know this saying rings true with vaccines as well! Vaccines, when implemented properly, can truly be a life saver on your farm. There are many small details to remember when using vaccines, I figured this would be a good time to run over all the nuisances for you to review to make sure you are getting the most out of your prevention!

### **1. Vaccine types:**

This is important for many reasons! There are two main types we most consistently use and that is a killed vaccine, and a modified live vaccine (MLV).

Modified live vaccines are great in that when administered properly and boosted properly, they offer a longer window of higher titers, meaning animals will be protected from the diseases you vaccinated for, for longer. But the downside to MLV is that once you mix it together, you only have a two hour window to use it. Beyond that the efficacy of the vaccine is severely reduced. You need to prepare prior to mixing who is going to get it and have your plan in place.

Killed vaccines are great for preventing or reducing severity of many diseases such as E.coli mastitis. Easy to give and often safe to store in the fridge between uses (cleanliness is super important here!). The downside is that it often does not build a strong enough immune response to have high levels of protection for as long of periods as MLV

### **2. Mixing methods**

Not all vaccines need to be mixed, but modified live vaccines do need to be. It is important to remember when mixing that you do not vigorously shake, some patience is key here. Rather, add the adjuvant to the dry powder and roll the vaccine vial or gently swirl. Shaking can damage the components of the vaccine, and sometimes can explain why we see much stronger reactions in animals then we expect

### **3. Proper storage**

Vaccines need to be stored at fridge temperature before they are used. If a vaccine reaches room temperature, or freezes, the vaccine is no longer any good. They also need to be kept out of direct sunlight.

### **4. Method of injection**

It is important to read the label or clarify with your veterinarian how to be injecting the vaccine. Not all vaccines are intended to go in the muscle. Improper injection can lead to a failed vaccine on an animal.

## 5. Picking the right candidates

It is always important we are boosting the vaccine in the required time frame for proper response. It is also important that we make sure the animals receiving it will respond properly! Things to look out for and avoid:

- Do not vaccinate a sick animal
- Do not vaccinate an animal during a stressful event such as a pen move or weaning
- Do not vaccinate on hot days (above 25C or very humid), if there is a hot stretch for a week plan ahead and needle a group early or possibly a few days late during the cooler temperature days
- Do not vaccinate three weeks before an animal calves or three weeks after as their immune system is in a weaker stage

## 6. Cleanliness

I know we are in a barn, but keeping everything that comes in contact with that vaccine and vaccine bottle clean is necessary! Especially our killed vaccines that will be staying in a fridge between uses. Fridges only slow growth of bacteria, it does not kill it. Contamination can make a vaccine ineffective, or worse cause a severe reaction when giving a vaccine that has been contaminated. Always make sure the top of the vaccine bottle is clean, and any needle going in is clean. For our mastitis vaccines, I recommend a new needle for every cow to avoid introducing any bacteria into that vial. This is where a vaccine gun can come in handy! Also ensure where you are injecting in the cow is a relatively clean spot. Cleanliness is why I would recommend you do not store an open vaccine in your fridge for over 3 months max.

## 7. Nasal vaccines

These are most commonly used for calves, and are great for causing a local immune response in the nasal passageways of the animal. The most common complaint is the calf sneezing some of the vaccine out. To help prevent this, restrain the calf and lift its head to a 45 degree angle. Insert a cannula roughly 1 inch into the nostril. You can also purchase an atomizer which sits on the end of the syringe and disperses the vaccine more to limit loss

## 8. Protocol

And last on the list, but definitely not least, it is important you are following a proper protocol. It is a great idea to review your vaccine protocols with your vet regularly to avoid protocol drift, or misunderstanding.

Vaccines are great when used properly, and some small key steps mentioned above can go a long way in ensuring your money is well spent and the prevention you think is there is actually working for you.

As always, any questions please don't hesitate to ask one of us at Heartland! And best of luck with plant '25!

Dr. Niki Alsop



**Welcome to our LA Vets Dr. Julie French who joined us March 31, 2025 and Dr. Abby Peca & Dr. Mikayla Ringelberg joining us June 2, 2025!**

## Fly Control

Have you heard the buzz? Large animal technicians are offering fly prevention in combination with dehorning services. Ask your large animal tech for more information!



## Upcoming Holiday Hours

The clinic will be closed Tuesday July 1, 2025 for Canada Day. As always, veterinarians will be available 24-7 for emergency service.

