

OCTOBER 2018 NEWSLETTER:

VACCINATION PROGRAMS

Prepared by: Dr. Allison Maslack

My goal for this newsletter is to get everyone thinking about what your farm is doing (or not doing) for a vaccination program and what changes you may need to make to get the most bang for your buck and reach your goal of healthy and productive animals. Whether you are organic or conventional, free-stall or tie-stall, dairy or beef, almost all herds require some sort of vaccination program to keep their animals healthy. A vaccination program is only a portion of your herd health plan, but an important part for managing and preventing infectious disease pressure on your herd. Therefore, it should be reviewed at least annually with your Veterinarian to make sure you are using the correct vaccines at the best time to combat the pathogens in your herd.

Going back to basics, vaccines stimulate the animal's immune system to produce antibodies that will help fight off invading disease organisms in the animal's body. Now more than ever there are many types and brands of vaccines to address both old and new emerging pathogens. It's easy to be swayed by different marketing as well as by price, but it is important to know the differences between products. This may be obvious, but not all vaccines are equivalent and not all vaccines work in the same way!



The main way we think of different vaccines are "killed" vs "modified live" – either form can be used effectively to prevent disease and clinical signs of respiratory, reproductive, diarrheal, clostridial, pinkeye, and mastitis pathogens. In addition to killed vs modified live vaccines, there are other vaccines that target specific pathogen receptors and others that limit the negative effects of endotoxins on the animal. Some vaccines are very effective at preventing disease, while others will limit clinical signs, but we all know that it is certainly less expensive to prevent severe clinical disease than it is to treat it.

There are many different vaccine brands and combinations – so what is used in your animals should be decided on an individual herd basis to meet your farm's unique pressures. After deciding on what vaccines are right for your herd, proper vaccination timing and boosting of the vaccines must also occur in order for them to work to their best effect. With the different vaccine options, there are several ways to produce antibody and immune responses in your animals. More than whether a vaccine is given intramuscularly or subcutaneously, most herds are also utilizing intranasal or oral vaccines for more local and immediate immunity. In addition, some vaccines aren't meant to protect the animal they are given to- consider dry-cow vaccines that help with colostrum quality and antibody specificity for diarrheal disease in their calves.

When it comes to designing a vaccine program, I like to think of selecting vaccines similar to buying insurance. You cannot predict the weather, nor all the variabilities that can occur on your farm like nutrition, facilities, stocking density, and even open vs closed-status. Therefore, like insurance for a vehicle, vaccines help ensure that when your herd faces an infectious challenge the animals' immune systems are prepared to fight. When you work with your Veterinarian they can help you

recognize what your herd's areas of opportunity are, what your farm needs to "insure" yourself against, and when. This should be done by reviewing any disease testing results, as well as treatment records. Obviously, the goal is to only utilize the vaccines that your herd truly needs and administer these vaccine for when the animals need protection. Going back to insurance, for example – if your herd is closed and does not have Salmonella as an issue you won't see much benefit from using a vaccine for that pathogen, just like you don't need to buy motorcycle insurance if you don't own a motorcycle! Continuing the comparison – you probably don't need to vaccinate for the common pinkeye *Moraxella bovis* in the winter-time, just like you don't need to start buying motorcycle insurance in the winter! Finally, like insurance you may not know you have a good program until you are faced with a major challenge, but you also don't want to wait until you have a crash to realize you need it – just like you don't want to wait to have an outbreak of pneumonia to realize there is a hole in your vaccination program!

Hopefully this newsletter reminds you to review your vaccination program with your Veterinarian and renew or change your "insurance policy" to fit the needs of your herd. I also hope it sparks your interest to come to our next Franklin County Dairy Discussion Group Meeting!

 Franklin County Dairy Discussion Group You are invited: Dr. Tom Shelton "Cattle Vaccines - Maximizing Protection without Sacrificing Herd Performance"	American Legion Hall Saint Albans, VT October 31, 2018 11:30 am - 2:30 pm Lunch and refreshments provided Please RSVP by calling 524-3222 or emailing nwvvet@comcast.net Sponsored by: 
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Happy Halloween!

