



From the desk of Dr. Jarrett Gordon  
April 1, 2015

## Vaccination Refresher

Spring is in the air and so is the snow! I want to remind you of some vaccine strategies that will help you get the best protection from your vaccines. Much as you perform Spring tune-ups on all your farm machinery/tillage equipment, vaccines can help you tune-up your herd health in a way that maximizes immunity when you'll need it the most. Some of you do once-a-year whole-herd vaccines for specific diseases such as mastitis and pinkeye and pneumonia. Others give vaccines all throughout the year or at specific stages of lactation. There are good reasons for both strategies.

First, let's remind ourselves of how the vaccines work. We give a dose of an antigen (the vaccine, which is a killed or inactivated/modified "bug") to an animal in hopes that its body will produce antibodies to that specific bug. The antibodies actually attack a "real bug" if one enters that animal's body later on. All our injectable vaccines work this way. (this is a real simplification, of course) Our maximum antibody response takes about three to four weeks. The intranasal vaccines work much quicker, in about three to four days to maximum effect. These vaccines stimulate "mucosal" immunity in the linings of the airways. The resultant antibodies from intranasal vaccination block absorption/attachment by the bacteria or viruses in the lining of the airways.

Next, here is a list of things to consider before vaccinating an animal or herd. Stresses such as heat or extreme cold, illness, or transporting/moving/re-grouping animals can severely reduce the antibody response of the animal. One advantage of the intranasal vaccines is that they still seem to offer moderate to good protection even in the face of disease.

Finally, with all that information, it is time to vaccinate. Try to plan ahead for the big risk factors and remember that timing is everything. If you're vaccinating calves, try to do it 3-4 weeks before your typical trouble starts. (hard with scours, but that's what colostrums is for!) You can review records to determine when the animals have broken with disease in the past. For mastitis whole-herd vaccination, plan on late April to early June so that the immune response is maximized when the real heat hits in July and August. Pneumonia seems to be less seasonal nowadays, so again be 3-4 weeks ahead of your historical outbreak times. (Remember, for the intranasal vaccines, you only need 3-4 days... not weeks.) Pinkeye vaccination should be given before the summer flies get nasty. Be thinking ahead!

We get the best protection for certain diseases when we need it. It allows us to greatly boost the antibodies in the colostrum to get our calves off to the best possible start.

The greatest advantage to vaccinating at lactation stages is that we can spread out the vaccines to avoid overload. (you can give too many at once!) This also allows us more flexibility to tailor vaccines to each herd. If you haven't done so yet this year, talk with your herd veterinarian to write out your vaccine protocols. One last reminder, if you haven't completed your herd treatment protocol

booklet yet, remind your veterinarian of that also!

Happy Easter! May God bless you as you remember what Easter is really about. HINT: An Empty Tomb.

## Vaccine Handling

Vaccines should be properly stored until they are ready for use. Expose only what vaccine is needed or will be used in about an hour. If there are several animals to be processed, keep vaccines in a cool insulated container and take them out as needed. Most modified live vaccines must be rehydrated by adding a sterile diluent to the freeze-dried material, which is vacuum-packaged. Because of this vacuum, the diluent can be pulled through a transfer needle into the vial containing the freeze-dried material.

After rehydration modified live vaccines are good only a few hours under perfect conditions. Exposure to sunlight and heat will inactivate them very quickly. Alcohol or any disinfectant applied to the needle between animals can kill a modified live vaccine if only a drop remains in the needle. For this reason, when you use a modified live vaccine refrain from disinfecting the needle between animals. You should use disposable needles.

If you are using a syringe and needle to make the diluent transfer, use a clean syringe for this purpose to avoid contamination of the entire vial with the syringe you are vaccinating with. You should also maintain a clean needle for withdrawing vaccine from the vial, avoiding the possibility of contamination by using the needle you are vaccinating with.

Always read the label directions on the vaccine label and follow them. Manufacturers often mix vaccines for the convenience of the user; however, never mix vaccines since they may not be compatible. Proper handling and storage of vaccines will enhance the development of a strong immunity to the diseases you are vaccinating for.

## **WVU Extension Service**

Med supply updates.....

Guardian continues to be in short supply.

Clostridium Type A is not available.

Ecolizer is not available, we are getting great feed-back on the 1st Defense tubes as an alternative.

Dry Clox is not available, most producers are using Orbenin DC.

**MARK YOUR CALENDARS!**

Herdsmen Meetings 1st Wednesday of every month,  
Calf Meetings 3rd Wednesday of every month.

Both are at 5:00 pm at the clinic. RSVP please