

## **“Dealing with the Frustration of Back Orders”**

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*Editor’s Note: This article qualifies for continuing education and training requirements for the National FARM Program.*

In last month’s Animal Care Column, Dr. Charlie Gardner did an excellent job of discussing the causes, implications and ways to deal with abortions in dairy cattle. There are many different causes and strategies to consider when building a prevention and control program for your herd. Vaccination programs are a part of the reproductive management strategies on most dairy farms. Hopefully these programs are developed with the help of a veterinarian who is knowledgeable of the situations that are present on your farm to make them effective for your operation. Your program should be comprehensive to include animals of all ages and stages of lactation and pregnancy. Hopefully, you have this program outlined, written down and understood by everyone on your farm who might be involved with the implementation of the program. So far so good!

The problem comes when you try to purchase the vaccines needed in your program from whatever outlet you generally purchase them from. Over the last couple of years, the response is often that they do not have the product you want. Worse yet, they can’t even tell you when they will be expecting more product to come in because the manufacturer doesn’t have an expected availability date. What do you do now? Do you just grab what you think is the most similar product on the shelf? Do you wait it out for the product to come back and catch up your program at that time? Do you discuss the situation with the appropriate farm advisors?

To make the proper decision with vaccine replacements, it is important to understand several factors related to the vaccines. These factors include the type of vaccine product, safety in various stages of life and pregnancy status, previous vaccines used in the animals, potential effects on milk production in lactating animals, and route of administration.

In general, vaccines are modified live, killed or various combinations of each. In general, killed vaccines are safe to use in all animals above a certain age regardless of their pregnancy status. The viruses included do not replicate in the animal, thus they can’t infect the fetus the animal may be carrying. Although they are safe, killed vaccines do not stimulate the immune system as broadly as modified live virus vaccines can in most cases. They also generally need a booster dose after their initial dose to provide longer term protection. That is why modified live virus vaccines are generally preferred in animals in which they can be used safely because of the broader and longer-term immunity they stimulate. Combination vaccines, with some components killed and some of them attenuated or modified live, offer the components that are safe for the class of animals they are labeled for, in attenuated form, and the other components in killed form. As you can see, not every vaccine is the same, just because they are in the same refrigerator.

The importance of this information is for you to understand which type of vaccine is used in your program at various stages, so if you need to find a replacement, you use an appropriate and safe product. Make sure you read the label as to the vaccine's approved use in pregnant animals if that is your plan. There are often requirements related to previous vaccination with the same product if using modified live vaccines in pregnant animals. It is much better to do your homework ahead of time than see abortions or poor reproductive performance from using the wrong product at the wrong time.

I have also received many phone calls and comments while on farms about drops in milk production up to 10 pounds per cow or more when a substitute product is used for a whole herd vaccination program. This usually occurs when using a highly stimulating killed vaccine or one of the combination vaccines that is labeled for use in pregnant animals. Certain vaccines are more reactive in the animal than others. If used at dry off or in a program where only a small portion of the herd is vaccinated on a given day, this milk drop will not be noticed – or may even be viewed as a positive situation when drying cows off. Some vaccines have research behind them regarding milk decreases after use in lactating cows. If in doubt, discuss this with your veterinarian before you use a substitute product, as nothing can be done once they have been given to the cows. At that point, all you can do is watch your bulk tank volume slowly come back to normal over several days.

Unfortunately, we have all seen the effects of supply chain issues over the last several years in many parts of our business and lives. In animal health supplies, when one product is unavailable, it often causes a ripple effect in other similar products in the same category. What follows is an overall shortage for an entire category of products. When you find yourself in one of these situations, make sure you understand all the implications of switching to a different product. If you need help to understand your choices, reach out to your veterinarian, or the appropriate farm advisor for the given situation, so you don't see any undesirable outcomes for your operation.