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TECHNICAL INFORMATION FOR
TODAY'S FEED PROFESSIONAL

Improve Your Vaccination Program Before You Start

Dairymen and calf raisers spend lots of time and money on vaccines. Vaccines are used by almost all producers but there are many common questions that everyone wants to know:

- **Which product is best?**
- **What dosage and injection site?**
- **What age should the calf be when vaccinated?**

These are common questions. Circulation of many opinions and related facts make these discussions quite interesting.

A local veterinarian should be the primary contact person regarding different vaccination products and programs. Veterinarians understand the local risks and challenges associated with farms in your area and are best qualified to recommend the proper vaccination program for specific operations.

Although the local veterinarian is the key advisor on vaccination protocols, in the end, the dairyman and calf raiser are the people that must make the program work by properly administering the shots at the right time to the right animals. Things the producer needs to know before any vaccination program is started are:

- 1. Store and handle vaccines properly:** Seems pretty simple but if a Modified Live Vaccine (MLV) is kept out of refrigeration for any length of time, there is a good chance the "Modified Live" part of the vaccine will become reduced or totally killed. This will reduce and more likely eliminate any effectiveness from the product. A few areas that could be a problem with handling and storage are:
 - a. The lag time between delivery and placement in the refrigerator. The goal should be immediate transfer from delivery to refrigerator.
 - b. Refrigerator cooling capacity: Many of the refrigerators on the farm may not be able to keep products at less than 40°F (4°C) without freezing. This is made more difficult when the refrigerator is also used to store everyone's lunch, snacks, drinks, colostrum, etc.
 - c. Day of vaccination: It is not uncommon for a producer to pull a product from the refrigerator and keep it in their pocket or on the desk for a period that, in some cases, can exceed several hours. If the day does not turn out as planned, the vaccines could even be returned to the refrigerator after having been at room temperature for several hours.
- 2. Mix the product and use it immediately:** Once a MLV product has been mixed, the viability of the product may only be a couple of hours at most. Do not mix an entire day's supply of product. Mix the products at the time of injection. This will maximize the number of antigens presented to the animal which will help improve immunity.
- 3. Dedicate a syringe to vaccinations:**

This is important because when using a MLV product, the syringe and barrel can not have any residual soap, detergent or disinfectant in them. Residual levels of these substances can deactivate the MLV vaccine and seriously reduce its effectiveness in the animal. It is best to specifically dedicate one syringe to a single vaccine and never use it for antibiotics or other injectables. Washing of this dedicated syringe between vaccines should occur with warm water only, and then dried thoroughly.



- 4. Time of vaccination during summer:** Vaccinating an animal in the heat of the day or in the evening after a very hot day may reduce effectiveness of the vaccine. An animal experiencing stress (especially, heat stress), their immune systems will not respond well to the additional challenge of a vaccination. To improve the response of animals to vaccines, plan early morning shots; after animals have had a chance to cool down during the night time hours.

The above points are important to help the vaccination program that you have developed with your veterinarian to optimize immunity in your animals. Your local veterinarian can help you with additional ways to improve your vaccination program.