

## Vet's Corner:

New guidelines for vaccine selection by dairy veterinarians and producers are changing vaccination protocols constantly. In the past, many producers looked for the most complete nine to nineteen way vaccines to cover all disease possibilities. The expanding dairy industry has seen extensive cattle movement nationwide, which has challenged biosecurity plans. A complete vaccination plan has been a logical defense against introducing disease.

In many cases, these vaccination plans have gotten too complex and difficult to get 100% compliance. Instead, of throwing the kitchen sink of vaccines at cattle, does it make more sense to spend some money on lab testing so the dairy can focus on diseases that are on the farm and cut down the vaccine list? For instance, if tracheal swabs don't detect *Histophilus somni* or *Mannheimia* in the calf herd, is there any need to put the calves under unnecessary stress with these vaccines which carry a fair amount of endotoxin? If lab tests showed that BVD was the underlying cause of the calf problem, a specific ear notch or precolostral blood sampling with culling could help the dairy zero in on reducing the problem. Spot tests for Lepto hardjo bovis, Neospora, and Mycoplasma could be done on an annual basis, also.

Another hot topic for vaccination choice is Duration of Immunity. For the next few years, expect vaccine companies to promote with DOI claims. Now longer numbers will indicate that the vaccine has been licensed for a longer time; some new promising vaccines will have lower numbers because they are "a work in progress." And similar lengths of immunity will be attained by the new brands in the future. Generally, MLV respiratory vaccines will achieve longer DOI than killed vaccines, with the goal of giving protection through the breeding and gestation period, which exceeds 12 months in most high producing herds.

Dairymen can consult the herd health veterinarian when reviewing challenge studies that vaccine companies use to compare their products. In the words, of Iowa State University's Dr. Jim Roth, "Setting up a challenge study can be an exercise in selecting the correct strain and amount of pathogen, so that vaccinated calves are protected and controls get sick." Some challenge studies are set up to study disease prevention and some are set up to produce marketing information. On the farm, we know that nature will confound studies, so the veterinarian must learn if truly strong challenges were used in vaccine tests.

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