

Vaccinations: An Important Health Management Tool



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Herd health programs should be developed for the protection of animal health and vaccines are an important component. Vaccines protect the animals in the herd against disease caused by infectious organisms, such as viruses or bacteria. However, vaccines do not prevent all diseases by themselves and should be used in conjunction with good management practices.

There are two general categories of vaccines – killed and live products. Examples of modified live vaccines include IBR, BVD, PI3 and Bangs. Killed vaccine examples include blackleg, enterotoxemia and leptospirosis.

Vaccines that contain killed or modified live organisms do not cause the disease but stimulate the animal's immune system to develop antibodies to the disease. The immune system is then primed to remember that particular disease and is capable of mounting a response against the disease if infected later in life. A vaccine cannot prevent infection but will increase the animal's ability to thwart the infectious organism or lessen the severity of the disease.

No vaccine is 100 percent effective. Effectiveness depends on such things as age of the animal, passive immunity the animal possesses when vaccinated, the stress on the animal, diseases and other factors. Remember, immunity is not conferred immediately; it takes about two weeks before the animal develops an active immunity to the disease.

Vaccination handling can have a dramatic effect on the vaccine's effectiveness. Modified live vaccines are quite sensitive to light, disinfectants and heat.

Thus, do not use chemical disinfectants in syringes or needles. Do not reconstitute these vaccines more than 1 hour before use. Protect them from sunlight. Keep them cool. Killed are less sensitive to light, and you can use chemical disinfectants in your needles and syringes. All vaccines should be kept cool.

Vaccines against some diseases are more effective than others. Live vaccines sometimes give better and longer-lasting immunity than killed products. Killed vaccines give different lengths of immunity. It is important to always follow the directions. Talk with your herd veterinarian about the length of immunity to prevent lapses in protection.

The timing of vaccination and selection of the product are important considerations. An effective vaccination protocol can be developed to fit most operation and management approaches. The vaccination program should be part of a total herd health program. Consult your veterinarian for specific health program recommendations and for guidance on choosing pharmaceutical products, especially when using modified live products. After you have worked out your vaccination program, it is very important to keep excellent records. Do not rely on your memory; too many mistakes could be made.

While many factors can impact the effectiveness of vaccines, good sanitation, management and nutritional practices are necessary for you to achieve the best results. Work closely with your veterinarian to customize a vaccination program for your herd. By being involved in the design of the herd health production calendar, a veterinarian will be better able to help prevent disease and deal with it if it occurs. **Δ**

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