K-State vet shares tips for handling vaccinations, maintaining effectiveness

Vaccines are less effective if not kept within accepted temperature range

By Shelby Varner, K-State Research and Extension news writer

MANHATTAN, Kan. – A Kansas State University veterinarian is reminding producers that properly handling bottles containing livestock vaccinations is crucial so that it remains effective for the animal.

Gregg Hanzlicek, director of the Production Animal Field Investigations at K-State, said that keeping the vaccination bottles between 35-45 degrees Fahrenheit and out of UV light is critical.

“The UV light will have a detrimental effect on the live virus that’s in the mixed-up vaccine,” Hanzlicek said.

Many automatic syringes used for administering livestock vaccinations will have the barrel of the syringe -- where the vaccination is -- covered to reduce exposure to UV rays. “It’s still best if you can just keep those (syringe) guns out of the light completely,” Hanzlicek said.

Some other tips, according to Hanzlicek, include:

- Keep the bottle out of the sun because exposure to the bottle can also kill the virus.
- Store the vaccine at an appropriate temperature, which is especially important if it is a modified live vaccine. “We want those vaccines to always be within 35-45 degrees F and that means during shipping, during storage, after mixing and getting ready to inject into the calf,” Hanzlicek said.

Hanzlicek said once the vaccine reaches temperatures above 45 degrees F, the virus will be killed.
In a recent study, researchers looked at 300 producers, retailers and veterinary clinics, where temperature logs were placed in the refrigerators where the vaccines were stored.

“What they found was that 76% of those 300 hundred refrigerators did not keep those temperatures between 35-45 degrees,” Hanzlicek said.

Hanzlicek recommended that people handling the vaccines use a temperature logger to make sure that the vaccines are staying in the proper temperature range, including guarding against the vaccine getting too cold.

“Freezing will have a negative effect on both modified live and kill (vaccines),” Hanzlicek said.

More information is available from local extension offices in Kansas.

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K-State Research and Extension statewide offices, www.ksre.k-state.edu/about/statewide-locations.html

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