

VACCINATING CALVES IN HOT WEATHER

Heat-stressed calves do not respond well to vaccines. But, there is no need to quit vaccinating just because summer is here.

Pick the best time of day

Plan to give vaccines during the time of day when the calves have the lowest level of heat stress.

When is the lowest level of heat stress? **As early as possible in the morning is the best time to avoid heat stress in bovines of all ages.**

Remember that the highest core body temperature in a bovine occurs about four to five hours after the peak outside air temperature occurs. That means calves and cows have peak heat stress around 5 to 6 PM. The lowest level of heat stress occurs approximately twelve hours later, in the morning.

Could work routines be changed during the summer to give vaccines very early in the morning? Bovine immune response will be strongest then and money spent on vaccines will result in the highest levels of immunity.

Handle vaccines carefully

Remember the basic rules for handling vaccines. Hot sunny weather creates even more possible pitfalls in vaccine handling.

- **Always keep vaccine out of direct sunlight.** Most of these bottles are clear glass and allow the sunlight to penetrate to the contents directly. One easy alternative is to place bottles of re-hydrated vaccine back in the original boxes.
- **Always keep vaccine cool.** It's very tempting to grab a bottle or two and stuff them your pockets or drop them on the seat of the pickup. In summer-time conditions this will destroy the vaccine's effectiveness rapidly.

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For Calves with Sam blog go to dairycalfcare.blogspot.com

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- For small quick jobs, I like to drop bottles of vaccine into a ten-quart pail with a cold pack from the freezer. For larger jobs (vaccinating all the yearlings), I have an insulated lunch box in which to store the vaccines.
- The biggest hot weather problem with killed vaccines is letting them get too warm too long. Even if they are returned to refrigerated storage, their effectiveness is reduced the next time we vaccinate.
- Always use the entire contents of modified-live vaccine bottles within a few hours after re-hydrating. After three or four hours, the effectiveness of these vaccines drops rapidly.
- I frequently use leftover modified-live vaccine on the next older group of heifers in order to prevent waste. **Never use these vaccines the next day. They will not create immunity.**