

COW/CALF CORNER

The Newsletter

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by Glenn Selk, Oklahoma State University Extension Cattle Reproduction Specialist and John Kirkpatrick, DVM, Professor Emeritus, Oklahoma State University College of Veterinary Medicine

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Protecting More Calves from Respiratory Diseases

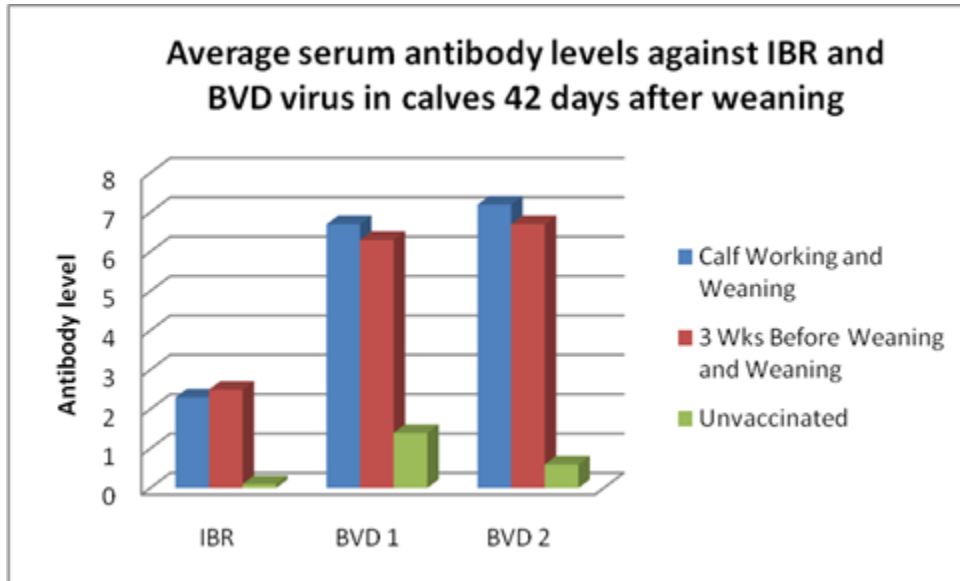
by Glenn Selk, Oklahoma State University Extension Cattle Reproduction Specialist and John Kirkpatrick, DVM, Professor Emeritus, Oklahoma State University College of Veterinary Medicine

It soon will be time to "work" the spring-born calves. New research is available that suggests that the young calves may be vaccinated with products used for protection against the respiratory diseases (IBR and BVDV). By vaccinating the calves now, the first immunization takes place when there is very little stress on the calf, giving the calf an excellent opportunity to begin to develop cell-mediated immunity. The calf then is re-vaccinated at weaning time.

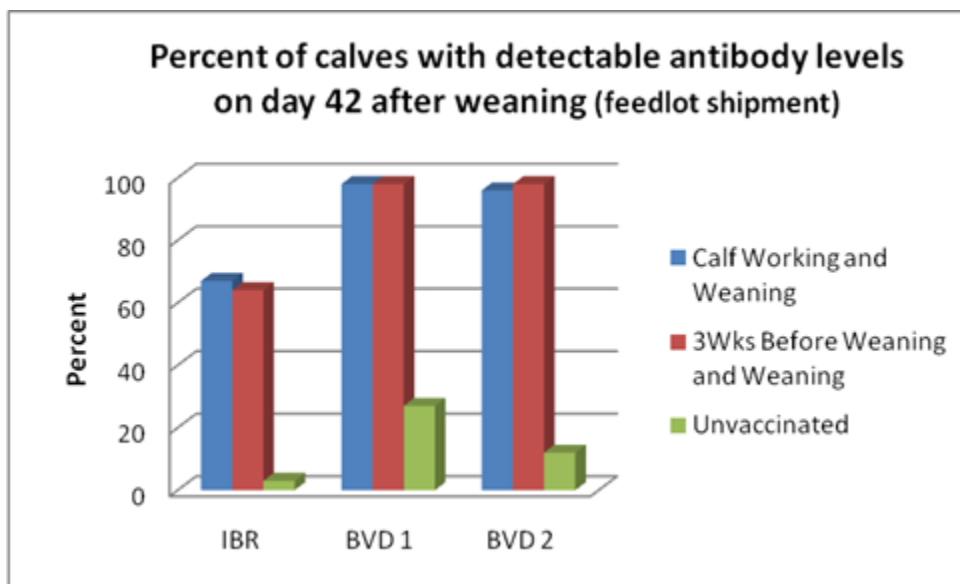
The July, 2008 issue of the Journal of American Veterinary Medical Association contains the results of the study comparing a "calf-working" vaccination with the traditional "pre-weaning" vaccination. Oklahoma State University veterinary scientists cooperating with the Noble Foundation of Ardmore studied the timing of modified-live virus vaccinations in beef calves. For years, the recommendation for the timing of modified-live vaccines called for the vaccine to be given after maternal passive immunity antibodies had disappeared from the blood of the calf. It was thought that maternal antibodies (received in the colostrum) would interfere with the

effectiveness of the vaccine. Therefore most viral vaccines were not given until the calves were at least 4 to 5 months or older.

However, the OSU/Noble Foundation research has shown otherwise. They vaccinated calves at 67 days of age (calf working) and re-vaccinated them at weaning (190 days) and compared that with vaccinating at 167 days of age (3 weeks before weaning) and boosted at (190 days) weaning. . The result with both vaccination schedules was very similar and improved serum antibody titers compared with un-vaccinated control calves.



There was no difference in the percentage of calves protected by the vaccine due to the timing of the first vaccination



Not surprising was the fact that the vaccinated calves had lower treatment costs and less mortality in the feedlot than the non-vaccinated control calves.

Before the study was initiated, all cows and replacement heifers were vaccinated after calving and 30 days before breeding with a modified live vaccination for IBR, BVD types I and II, PI-3, and BRSV. This research suggests that the first vaccination with a modified live virus vaccine can be given at normal "calf-working" time, if boosted again at weaning. The calves would not need to be gathered at a separate time (approximately 3 - 4 weeks prior to weaning). The cows that nurse these newly vaccinated calves should have already been protected with a modified live vaccine against these same respiratory diseases. This data has led to an acceptable option for value added calf pre-conditioning programs such as the Oklahoma Beef Quality Network. Hopefully, more calves will be vaccinated for the respiratory diseases and improve the health and quality of Oklahoma-raised calves. Source: [Kirkpatrick, et al. 2008. JAVMA Vol. 233, No. 1, Pages 136-142.](#)

Proper Injection Sites to Remember at Calf-working Time

Glenn Selk, Oklahoma State University Cattle Reproduction Specialist

The month of May is traditionally the time when "spring round-ups" take place. This is the time that large and small cow/calf operations schedule the "working" of the calves. As the majority of the calves reach their second month of life, it is time to castrate the male calves and immunize all of the calves to protect them against blackleg. Also the new information from Oklahoma State University and the Noble Foundation (Kirkpatrick, 2008) suggests that in some situations, calves may be vaccinated for the respiratory diseases, i.e. IBR and BVD.

Correct administration of any injection is a critical control point in beef production and animal health. There is a negative relationship between meat tenderness and injection sites, including injection sites that have no visible lesion. In fact, all intramuscular (IM) injections, regardless of the product injected, create permanent damage regardless of the age of the animal at the time of injection. Tenderness is reduced in a three-inch area surrounding the injection site. **Moving the injection-site area to the neck stops damage to expensive steak cuts.** Therefore, cow/calf producers should make certain that their family members, and other hired labor are sufficiently trained as to the proper location of the injections before the spring calf-working begins.

Give injections according to label instructions. Subcutaneous (SQ) means under the skin, intramuscular (IM) means in the muscle. Some vaccines

(according to the label instructions) allow the choice between intramuscular (IM) and subcutaneous (SQ). **Always use subcutaneous (SQ) as the method of administration when permitted by the product's label.** Remember to “tent” the skin for SQ injections unless instructed otherwise by the manufacturer.

Beef producers are encouraged to learn and practice Beef Quality Assurance Guidelines. You can learn more about the Oklahoma Beef Quality Assurance program by going to the website: <http://oklahomabeefquality.com/> The Oklahoma Beef Quality Assurance Manual can be downloaded from that site.

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