WEANING PRACTICES CAN AFFECT CALF HEALTH AND PERFORMANCE

Fall is upon us and it’s time to begin marketing your spring-born calves. In doing so, remember that how you manage these calves at weaning can improve their opportunity for better overall health throughout the rest of their life. A calf’s health can be affected by stress factors such as weaning, a naïve immune system, and poor nutrition. A preconditioning program can minimize a calf’s likelihood of disease, and thereby improve post-weaning gain, improve carcass value and most importantly improve the long welfare of the animal.

Many research reports exist indicating a benefit in selling price for calves that were vaccinated, weaned, and held on the ranch for 45 days prior to shipment. A recent University of Arkansas survey of calves sold in AR auction markets indicated that preconditioned calves captured an average price premium of $5.00/cwt compared to calves that had not been preconditioned. These preconditioned calves are more desirable to calf buyers due to their potential for improved health and increased gain performance.

The University of Arkansas conducted recent research that compared how different weaning practices can affect calf health and performance after they are shipped to a stocker cattle research facility. The study compared 2 groups of calves that had undergone different management practices before being shipped to the research facility near Fayetteville. The study utilized 236 steer calves that underwent preconditioning on their farm of origin before shipment. Calves originated from Arkansas ranches and were weaned, vaccinated, and held on the ranch for 45 days before shipping. Furthermore, 292 calves (210 bulls and 82 steers) were also purchased from multiple Arkansas auction barns and shipped to Fayetteville to be compared with the ranch-sourced calves. These calves had an unknown history of vaccination and weaning status.

The effects of preconditioning management were analyzed to determine if there were any differences in calf morbidity (illness), health costs and weight gain performance during the 42-day receiving period. The data displayed in Table 1 indicates that market origin calves exhibited considerably higher morbidity rates and poorer gain performance compared to the preconditioned calves.

Undeniably, weaning can be a stressful period for a calf which subsequently can affect health and performance. This study has indicated that a higher morbidity rate and higher health costs can be expected in calves purchased and shipped without any preceding preconditioning. However, by weaning calves on the ranch for 45 days, improved health and performance can be expected after they are shipped. These preconditioning management practices are not only an opportunity for producers to maximize the price they receive for their calves, but also in the best interest of the future welfare of the cattle.

Fenceline weaning can also help reduce weaning

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**Jimmy Driggers**

County Extension Agent

Staff Chair
stressed. Fenceline weaning allows calves to remain in sight of and in close proximity to their mothers followed by gradual increases in separation distance by moving electrified wires or tapes further from each side. This technique can also allow high-quality pastures to be used as weaning facilities in place of dusty drylots. A recent research study conducted at the University of Arkansas Livestock and Forestry Research Station near Batesville compared calves that were weaned either by abrupt separation or by fenceline weaning. The average daily gain during the 14 day weaning period tended \( (P < 0.10) \) to be greater for fence-line weaned calves compared with traditionally weaned calves (2.55 and 1.6 lb/day, respectively).

When you gather your calves to sell this fall, consider the opportunity of adding in a little extra management by providing them a preconditioning program. Not only does it give you the chance to benefit from a higher price, but it is the right thing to do to improve the long-term health of your calves. For more information about beef cattle production management, visit your county Extension office.

Pesticide Applicator Training (P.A.T.)
Restricted Use Pesticides

Two (2) PAT certification/recertification training classes have been scheduled for Garland County. The first will be held on Tuesday, 11-19-13 at 6pm and the second one will be held on Tuesday, 1-28-14 also at 6pm. Both sessions will be held here at the Extension office at 236 Woodbine St., in Hot Springs. It will not be necessary for you to pre-register, all you need to do is show up for either one. The cost for this training is $10 payable by check (no cash please) and your check needs to be made out to Garland County Extension Service. Give your check to the training instructor at the time of the training. REMINDER—If you cannot attend either of these sessions due to scheduling conflicts, there are other PAT sessions going on in other nearby counties. Go online to review a complete list of dates and locations. You’ll find this information by visiting [http://calendar.uaex.edu/main/calendar.asp](http://calendar.uaex.edu/main/calendar.asp) and then selecting the month you are interested in. You can also register online for one of the other training sessions being held in other counties by clicking on Pesticide Application.

Keeping a Pesticide Record—REMEMBER—records must be kept on Restricted Use Pesticides for 2 years. State Plant Board Representatives conduct random checks on records to ensure users are in strict compliance with the regulations that are set forth.

Table 1. Effects of weaning management on health and performance during 42 day receiving study.

<table>
<thead>
<tr>
<th></th>
<th>Auction Market</th>
<th>Preconditioned</th>
<th>( P )-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Daily Gain, lb/day</td>
<td>1.9\textsuperscript{a}</td>
<td>2.67\textsuperscript{b}</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Morbidity, %</td>
<td>67.2\textsuperscript{a}</td>
<td>7.7\textsuperscript{b}</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Medical Treatment Costs, $/head</td>
<td>18.49\textsuperscript{a}</td>
<td>2.31\textsuperscript{b}</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

\textsuperscript{a,b}Means within a row with different superscripts are different \( (P < 0.05) \). Data source Richeson et al., 2010.
Follow best practices when handling vaccines

Healthy calves are the result of a conscious, planned effort that includes a comprehensive health program developed with your veterinarian stressing preventative care through proper management, sanitation, observation and vaccination. The checkoff-funded Beef Quality Assurance program has developed practices for providing care to your animals in order to meet consumers’ expectations for a safe, wholesome food supply. Here are some tips for handling vaccines:

Safety and storage

- Try to buy bottle sizes that will be used up quickly.
- Keep vaccines refrigerated at proper temperature (less than 45 degrees Fahrenheit) until use.
- Check refrigerator temperature regularly to make sure it’s maintained at 35 to 45 degrees.
- Use an insulated cooler and multiple ice packs for transporting vaccines to work cattle.
- Avoid direct sunlight because ultraviolet light can impair vaccines’ effectiveness, particularly modified-live virus products.

Chute-side handling

- Keep your insulated container in the shade with the lid on to minimize sunlight and dust contamination.
- Mix only the amount that will be completely administered within one hour.
- Make sure syringes are properly labeled or marked to avoid mixing vaccines when refilling because it could inactivate the vaccine or make it less effective.
- Use different colors of electrical tape to segregate syringes and products.

Vaccine administration and site placement

- Always read vaccine labels before use and follow directions. Look at expiration dates, injection dose, route of administration, etc.
- Give injections only in the neck region—never in the rump, top loin, or back leg.
- Never exceed more than 10 cc per injection site and space injections at least 4 inches apart (hand width).
- Keep good records of each and every time an animal is treated or processed.

Be Safe—Not Sorry!
Four States Cattle Conference set for December 3 in Texarkana

TEXARKANA Ark. -- Drought has dragged beef producers in Arkansas, Louisiana, Oklahoma, and Texas through some of the toughest years in memory. On Dec. 3, producers will get a look at what the future may hold at the Four States Cattle Conference at the Four States Fairground in Texarkana. Chronic drought, high feed prices and low cattle numbers have made significant changes in how we run beef operations in our four states. We want our producers to come out of this program with solid tools to keep them in business.

The program starts at 8 a.m. and wrapup will begin around 4:15 p.m. The agenda includes general and breakout sessions. Planned topics are listed below:

- Cattle Market Outlook. Derrell Peel, extension livestock marketing specialist, Oklahoma State University.
- Current Tendencies in Parasite Control, Jeremy Powell, professor and University of Arkansas System Division of Agriculture veterinarian.
- Utilizing Baleage in the Beef Herd, Mike McCormick, LSU AgCenter.
- Today’s Look at Cow Size and Efficiency, Ryon Walker, LSU AgCenter.
- Cattle handling demonstration, Ron Gill, professor and Extension livestock specialist for Texas A&M.

For more information about the event, contact Paul Beck, 877-777-9702 or pbeck@uaex.edu.