

Vaccination Program Adds Value



Value is created when you produce a product that meets or exceeds the expectations of the customer. You should meet or exceed their expectations every time, not just on the average.

Value-based marketing has been a buzz word in the beef industry in recent years. Producers complain they get average prices in the marketplace for superior genetics and they don't receive a premium for delivering a product to the market that has been managed to perform above the average of the industry.

The cattle industry is a segmented business in which most calves lose their identity in the market channels. There is little feedback to cow-calf producers on how their calves fit the needs of the beef industry and the type of end-product they produce.

The Texas A&M Ranch to Rail program is an information feedback system which allows producers to learn more about their calf crop and the factors that determine value beyond the weaned calf phase of beef production. It provides an opportunity to determine how their calf crop fits the needs of the industry and provides the information needed to determine if changes in genetics and/or management factors are warranted in order to be competitive in beef production. It also helps them establish the relative value of their calves compared to the industry norm.

Ranch to Rail participants have had an average net return over the four year period (1991-

95) of \$44.59 per head. This sounds good, but when you examine the variability you discover there is tremendous room for improvement in consistency and quality since the net returns per head for the 753 participating ranches ranged from +\$307.03 to -\$310.01.

Performance factors such as average daily gain and feed efficiency are important since they impact feed cost of gain. Still, one of the main things demonstrated in the Ranch to Rail program was the affect of health on the ability of steers to express their genetic potential and the costs associated with sick cattle beyond the cost of medicine. Shown below is a four year summary of the impact of health on performance, profits and quality grade.

Healthy steers had an average of \$92.26 more favorable return.

Steers that got sick averaged 570 pounds upon arrival at the feedyard. To recoup the difference in net return, they should have been priced at \$16.19 less/hundredweight (cwt.) when placed on feed. Medicine costs averaged \$31 for the sick steers. This is a significant factor since 28 percent of the calves required treatment for respiratory disease. The remaining difference of \$61.26 (\$92.26-31) was due to reduced performance, increased feed cost of gain, higher interest expense and lower quality grades.

The fact that healthy steers' cost of gain was 17 percent lower resulted in them making substantial profit while the steers that got sick lost money and produced lower quality carcasses. This vividly points out the need to adhere to a sound

health management plan. By implementing a sound vaccination program at the ranch of origin, you are adding value to your product, helping increase the consistency and predictability of your calves, and you are providing them the opportunity to express their genetic potential.

This variability in health is built into the calf market. Buyers factor this into what they are willing to pay since they buy calves as a commodity. There are cattle feeding operations that are willing to pay relatively more for properly immunized and properly backgrounded cattle of good quality. The amount they can justify is dictated by the increase in value it benefits them and the volume of similar cattle available to be able to manage them as a unit.

The Ranch to Rail database provided the information that led to the development of the Value Added Calf Vaccination Management Programs (VAC). There are various options and each of the options has relatively different values and benefits. Producers need to determine the option that best fits their operation and is of value to their customer. Remember, value is created when you produce a product that meets or exceeds the expectations of the customer.

It's critical the proper vaccines be administered and adequate time be allowed to develop immunity in an environment where stress is reduced for optimal response. Using the VAC regimes resulted in calves with more consistent, predictable, favorable health results.

	Sick	Healthy
Head	2,127	5,596
Death Loss	2.7%	0.5%
Average Daily Gain, Lb.	2.78	2.94
Feed Cost of Gain, \$/cwt.	\$52.13	\$49.93
Total Cost of Gain, \$/cwt.	\$61.80	\$52.71
Medicine Cost/Head	\$31.00	\$0.00
Net Return/Head	-\$22.66	+\$69.60
Quality Grade:		
Choice	27%	39%
Select	67%	57%
Standard	6%	4%

These programs are designed to get the calves ready to enter the various marketing and production channels after they leave the ranch. Other problems that exist at the ranch level are unique to each operation. Consult with your local veterinarian to assess what other health assurance measures are indicated.

VAC-45

This program is designed for producers who have the resources to background calves for at least 45 days prior to shipment. This program has been shown to maximize the calf's preparedness to enter various production channels.

There are two vaccination options in this program. One is based upon a pre-weaning vaccination followed by re-vaccination at weaning. The other is based upon vaccination at weaning followed by re-vaccination 14 to 21 days later. The type of vaccines used depends upon whether or not the calves are nursing or weaned at vaccination. In both options, the cattle are backgrounded at least 45 days after weaning.

Pre-Weaning Option

Administer an injectable IBR-PI₃-BVD-BRSV (Rednose, Para-influenza, Bovine Viral Diarrhea and Syncytial Virus) vaccine 4 to 6 weeks prior to weaning. If vaccination then is not possible, the alternative is to vaccinate at 2 to 4 months of age when the calves are worked at branding. If this alternative is followed, administer an intranasal modified live vaccine (MLV) IBR-PI₃ vaccine is given.

Better immunity is generally established when the calves are older at vaccination due to less maternal antibody interference and the presence of a more functional immune system in the calf. The IBR and PI₃ components of the injectable vaccine must be chemically altered MLV, the BVD killed, and the BRSV should be MLV. The vaccines must have label clearance for use in calves nursing pregnant cows.



By implementing a sound vaccination program at the ranch of origin, producers add value to their beef product and allow calves to express their genetic potential.

When the calves are weaned, re-vaccinate with an injectable IBR-PI₃-BVD-BRSV vaccine. The IBR and PI₃ components must be MLV while the BVD and BRSV can be either MLV or killed.

Weaning Option

If the calves did not receive a pre-weaning vaccination, administer an intranasal MLV IBR-PI₃ and an injectable IBR-PI₃-BVD-BRSV vaccine at weaning. Re-vaccinate with an injectable IBR-PI₃-BVD-BRSV vaccine 14 to 21 days later. The IBR and PI₃ components of the injectable vaccine must be modified live. The BVD and BRSV can be either MLV or killed.

VAC-PreWean

Some producers don't have the resources to background calves. VAC-PreWean is a program designed to increase the level of resistance prior to weaning so calves have more

immunity as they enter various market channels. This program is based upon a pre-weaning vaccination at branding with the calves being shipped at weaning.

Vaccinate against IBR-PI₃-BVD-BRSV with an injectable vaccine and an intranasal modified live IBR-PI₃ vaccine when the calves are worked at 2 to 4 months of age. The IBR and PI₃ components of the injectable vaccine must be a chemically altered MLV, the BVD killed, and the BRSV modified live. The vaccines must have label clearance for use in calves nursing pregnant cows.

VAC-PreWean Plus

Some producers have the resources to be able to gather their calves prior to weaning, vaccinate them and place them back with the cows for a period prior to weaning. This allows time to develop immunity in an environment that is generally less stressful and where

exposure to pathogens is minimal. Better immunity is generally established in older calves due to less maternal antibody interference and a more functional immune system. However, vaccinations given less than 3 weeks prior to weaning don't generally provide adequate levels of immunity to assure the protection needed post-weaning.

VAC-PreWean Plus is based upon administration of an injectable IBR-PI₃-BVD-BRSV vaccine and an intranasal modified live IBR-PI₃ vaccine 4 to 6 weeks before weaning with the calves being shipped at weaning. The IBR and PI₃ components of the injectable vaccine must be chemically altered MLV, the BVD killed, and the BRSV modified live. The vaccines must have label clearance for use in calves nursing pregnant cows.

VAC-PreCon

Producers who purchase weaned calves and background them on pasture or in a drylot situation are a major source of stocker/feeder cattle. VAC-PreCon is a program designed to help ensure healthy stocker/feeders. This program is based upon cattle put together from various sources that are preconditioned or backgrounded for at least 45 days.

Administer an intranasal modified live IBR-PI₃ vaccine and an injectable IBR-PI₃-BVD-BRSV vaccine upon arrival. Re-vaccinate with the injectable vaccine 14 to 21 days later. The IBR and PI₃ components of the injectable vaccine must be MLV and the BVD and BRSV can be either MLV or killed. (Note: If there is no known history of vaccination against clostridial organisms, vaccinate and booster at the same time virus vaccines are administered.)

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