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LIVESTOCK

Data analysis provices value for receiving stockers

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During the course of conducting grazing research at the Noble Foundation, we routinely receive and "straighten out" stocker cattle. Many of these cattle are sourced from sale barns and would be considered to be at high risk for contracting bovine respiratory disease (BRD, also known as shipping fever). In the fall of 2006 and 2007, we received 858 such cattle and tracked their performance and cost on an individual animal basis through our receiving program. These cattle averaged 444 pounds when we received them; they came from sale barns in Oklahoma and Texas. Their frames were medium and large with number 1 and number 2 muscle score, and they were predominantly black- or grey-hided. Fifty-one percent of the cattle were bulls when we received them, with the remainder being steers. Nineteen percent of the cattle required dehorning.

We received them over approximately three to four weeks in each year and put them through a standard receiving protocol. The processing protocol included vaccines, implants, body weights, dehorning, etc. We castrated all the bulls, a portion of them by traditional surgical castration and the rest by banding. We also gave all the cattle an injectable antibiotic, half getting Micotil® and half getting Excede®. Following processing, we housed the cattle in a grass trap for approximately 42 days and gave them access to round bales of rye hay and 4 pounds per day of a pelleted feed. We checked the cattle every day and treated sick animals as they were identified.

We discovered several interesting trends in our data set:

1. Bulls that were banded gained less than steers (0.44 pounds per day difference), but bulls that were surgically castrated performed similarly to steers.
2. Steers that required dehorning gained 0.15 pounds per day less than cattle with no horns.
3. There was no gain difference between the two antibiotics.

Some other observations:

- In 2006, cattle performance was dramatically better than in 2007; but the cattle in 2007 would have made more profit because the cattle market improved during the receiving period.
- Cattle averaged 1.36 pounds per day gain, but individuals ranged

from -1.90 to 5.29 pounds per day.

- Total receiving costs averaged $103.23 per head and ranged from $63.45 to $802.95 per head (for one that died).
- Calves that got sick gained 0.70 pounds per day less and cost $33.47 more to receive than calves that did not get sick.
- In our data set, a theoretical "good" animal (i.e., a polled, healthy steer) would be expected to gain 1.65 pounds per day and cost only $1.12 per pound of gain to manage for 42 days. A theoretical "bad" animal (a horned, banded bull that got sick) would only be expected to gain 0.36 pounds per day and would cost over $7 per pound of gain to receive!

Using this data, we changed several aspects of our receiving program to make it more cost-effective. Some caution should be used when comparing our results to those from your own management system. Your system and cost structure is likely different than ours and may generate substantially different results. However, we think collecting and analyzing this kind of data is important for stocker producers. It will help you understand your operation better and allow you to make better and more informed management decisions. ■