Work Out Wonders

'Happy cows' may come from feedlots that exercise.

Through her study of feedlot animals and exercise, Fort Hays State University animal scientist Brittany Howell found no significant difference in ADG, DMI, F:G or carcass characteristics. While exercise didn't help overall performance, it didn't hinder performance either, she says.

Story & photos by
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Many of us have seen the "happy cow" commercial promoting California cheese. It just may be, however, that truly "happy cows" come from feedlots in the Midwest that have implemented an exercise regimen. Though still in the early stages of development, feedlots are finding improved disposition and health of cattle that are exercised on a regular basis.

Background

"Proper amounts of exercise are recognized as crucial components for virtually all mammal species," Brittany Howell, Fort Hays State University animal scientist, said during the Kansas State University (K-State) Research Roundup held in April in Hays, Kan. "However, when animals are put into confinement scenarios, exercise is typically limited." Howell wanted to find out if additional exercise would benefit animals in confinement. A study at the K-State Agricultural Research Center-Hays was conducted to determine if feedlot cattle might differ in performance if given access to periodic exercise.

Although Howell had no previous research about exercising cattle from which to base her study, she did find one unpublished field trial that offered optimistic results for exercising cattle in confinement.

"They basically took a load of cattle, gate cut them, had one pen they exercised, one pen they didn't," Howell explains. "The pen they exercised did see a much higher gain. The manager also made the statement that he felt exercise has become a really important tool for them in protecting health and performance, so they use exercise regularly. He also made the comment that exercise improves their attitude and behavior.

Brittany Howell

"Traditionally, we never thought of doing this," Howell continues. "Traditionally, we limit exercise. We don't want them to run around a lot because that would be wasting energy. We want them to gain. We want them to have enough room to be comfortable."

But, feedyards that have adopted an exercise program have reported that they've seen benefits, Howell says. "The thought is trying to find that happy medium of giving them a little more exercise that might lead to better benefits without hurting performance."

One of the feedyards Howell talked to, Heartland Cattle Co., has fully embraced the practice of bovine physical activity. Heartland, with locations in McCook, Holdrege and Danbury, Neb., has been exercising cattle for almost four years. Under the supervision of Bud Williams and Tom Noffsinger, Heartland implemented an exercise program as part of its low-stress cattle-handling (LSCH) regimen (see "Low-stress cattle handling").

"A large part of low-stress cattle handling is regular exercise," Patsy Houghton, general manager of Heartland, says.

Exercise protocol

In describing her own research, Howell reports that upon arrival at the K-State Agricultural Research Center, calves "went into three pens that were not exercised, and three pens that were."

Calves in the exercise groups were exercised consecutively for the first five days after arriving at the feedlot. For the following 10 days, calves were exercised every other day. For the remainder of their stay at the feedlot, calves were exercised twice a week. Calves were let out of their pen for 10-20 minutes each day they were exercised.

The cattle got their exercise by being turned out into an alleyway. Behavior exhibited during exercise time included rubbing and socializing.

"They would go to the bunks and start rubbing. Then they would go to the other pens and basically 'socialize' with the cattle in the other pens," Howell observes. "You could see that they enjoyed getting out of their pen."

The exercise protocol in place at Heartland is similar to that practiced by Howell in the K-State study. "We take newly received bawling calves out of their pens to exercise them one or two times a day for the first week to 10 days. This helps the calves learn that their pen is their new 'home' and also trains the cattle to move in a straight line when pressure is applied correctly," Houghton says.

Heartland receives between 5,000 and 8,500 head of freshly weaned, bawling calves each year. "When this many calves are handled, the positive response to exercise is easy to observe," Houghton says. "Once newly received calves have settled into their new surroundings, we decrease the frequency of exercise."

However, Houghton says, even with the decreased frequency of physical activity, Heartland continues to exercise each group of calves intermittently within their pens because of the many long-term benefits.

Benefits of exercise

"We all know exercise is healthy," Howell says. "It gets things going,

Low-stress cattle handling

"A large part of low-stress cattle handling is regular exercise," says Patsy Houghton, general manager of Heartland Cattle Co.

The basic principle for low-stress cattle handling (LSCH), according to a June 2005 Utah State University Extension document, is to prevent cattle from becoming excited.

"Cattle can become excited in just a few seconds, but it takes 20 to 30 minutes for the heart rate to return to normal in severely agitated cattle," the document explains. The first habit to break when implementing LSCH, is whooping, hollering and running. "Their ears are more sensitive to high-pitched noise than human ears. ... Yelling and whistling at the animals raises their heart rate more than the sound of a gate slamming."

The second is chasing cattle from the rear; it may make the animal(s) think they are being attacked by a predator. "Cattle have wide-angle vision, they can see behind themselves without turning their heads," the document says. "However, there is a small blind spot in their rear."

LSCH, from birth to harvest, ultimately boosts cattlemen's efficiency and profitability, according to a July 2006 National Cattlemen's Beef Association (NCBA) release. "When your cattle-handling skills are such that they actually reduce or remove stress ... you save time, money and livestock. That's good business," Joel Ham, rancher from west Texas, states in the release.

Three areas of LSCH producers can learn more about are on horseback, on foot or with stock dogs. *Low-Stress Cattle Handling* is a full-length instructional video available through the Cattle Learning Center. It helps cattlemen learn how to immediately put LSCH techniques to work on their operations.

The program was developed from live cattle-handling demonstrations at Pfizer's 2006 Cattlemen's College at the Cattle Industry Annual Convention. The Cattle Learning Center is administered by the National Cattlemen's Foundation (NCF) and funded by a grant from Pfizer Animal Health. For more information visit *www.cattlelearningcenter.org*.

the cattle get coughing, and it gets things out of their lungs."

Benefits of exercising cattle, according to Howell, are improved health, decreased bulling behavior, decreased dark cutters (which is related to stress) and improved attitude.

Improved attitude, Howell says, "goes hand in hand with cattle handling. You're interacting with those animals a lot more, they're getting acclimated, they're getting calmed down, so they have a better attitude than ones you never do anything with."

Additionally, Howell says, cattle that are showing signs of "confinement anxiety" have health issues, respiratory issues and digestive problems, and they do not go on feed as fast. They are the ones that benefit the most from exercise.

The challenge sometimes is identifying those animals. But once identified, "applying what is really a pretty simple therapy of just letting them get some exercise," is easy, Howell says.

Similar results of improved health and increased compliance are seen in the cattle at Heartland. "We see a marked difference in docility of regularly exercised calves, which, in turn, improves immune response, resulting in significantly lower per-head treatment costs," Houghton says.

Result: happy cows

Through her study of feedlot animals and exercise, Howell found no significant difference in average daily gain (ADG), dry-matter intake (DMI), feed-to-gain ratio (F:G) or carcass characteristics. While exercise didn't help overall performance, it didn't hinder performance either, Howell says. "We didn't exercise them so much that we hurt performance."

With a new batch of questions on her mind about exercising cattle in confinement, Howell is looking into health benefits of exercise for cattle, establishing a happiness score, and determining if exercise aids in cattle getting accustomed to being handled by people.

"The really big question is, 'Is there a benefit in health and getting them on feed?' " by practicing an exercise protocol, Howell asks. "That would be a really beneficial thing to be able to study on a larger scale and look at health and document it."

At Heartland, the answer to that question is, "Yes." There are many benefits to exercise, including health.

"In the feedyards, we have proven that when cattle receive regular exercise, they actually gain significantly more weight than their non-exercised counterparts," Houghton says. "In addition, we have seen improvements in carcass quality grade, because after months of easy handling and exercise, the finished cattle are calm and anxious to leave their pens at shipping time. This results in improved yield and carcass quality at harvest, as well as [fewer] problems such as dark cutters."

Heartland, extremely happy with the results they have observed using an exercise protocol on feedlot cattle, plans to continue the regimen in the future.

"There is no doubt that we will continue the practice of exercising cattle at Heartland Cattle Company. We have reaped too many benefits not to do so, and our crew enthusiastically embraces the concept," Houghton concludes. "Their daily work is much easier now because there is less stress on the cattle they are responsible for. Everybody wins."

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