

Flax-fed beef

Soon you may be able to get your essential fatty acids from flax-fed beef

By Kylie Gray

One day soon, beef may pack the same healthy essential acids found in fish, but it will still taste like beef. Scott Kronberg, an animal research scientist with the USDA's Agricultural Research Service, found that feeding cattle flaxseed increases the amount of omega-3 fatty acid in their tissue.

In one study by researchers at North Dakota State University, omega-3 levels of cattle on a corn finishing diet represented about 7% of total fatty acids. That bumped up to 12% for cattle fed ground flaxseed at 2 pounds per day of their ration, says Kronberg.

GETTING FLAX PAST THE RUMEN

Kronberg and his team have researched enriching beef with omega-3 fatty acid for about five years. "We've done a number of different trials, feeding 2 pounds of ground flaxseed per animal per day for two to three months, trying to see how much we've increased the omega-3 fatty acid in muscle," Kronberg says.

The goal is to get the flaxseed oil past the rumen microbes that turn most of the omega-3 fatty acids into saturated fatty acids by breaking the double bonds in the acid chains.

"Perhaps the biggest challenge I am trying to address is that microbes in the rumen of cattle destroy 90% to 95% of the omega-3 fatty acid the animals ingest," he says.



Photograph: Scott Kronberg

The yellow balls around the steers' necks electronically open a particular gate for each animal, so it eats only a certain amount of flaxseed each day, says Scott Kronberg, USDA animal scientist.

The group has tried treating flaxseed in hopes that the omega-3 would be protected from degradation by the rumen microbes, he says. The protection treatments don't seem to actually protect the

omega-3 from the rumen microbes, Kronberg says. But he's not giving up on that approach, and is still looking for an effective treatment and will test a few more soon.

"I don't know if or when we'll see omega-3-enriched beef sold in standard supermarket beef displays," he says. "But I won't be surprised if we do in five to 10 years." ■