Some ranchers resistant to use of antibiotics

By SIERRA DAWN McCLAIN
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Sierra Dawn McClain/Capital Press

Mehrten Homer of Painted Hills Natural Beef feeds his breeding stock high on a hill in Fossil.

FOSSIL — When fifth-generation cattle rancher Mehrten Homer first brought antibiotic-free beef to market at Price Chopper, an Oregon grocery chain now called Market of Choice, he recalls the man at the meat counter laughed. Bigger and cheaper beef sells, the man said. Surely no one would pay more for labels like "never given antibiotics."

But Homer and his family didn't give up. And in time, their customers were hooked.

Today, Painted Hills Natural Beef in Wheeler County, a cooperative Homer and six other ranching families founded in 1996, is one of the Northwest's most recognized beef brands.

Each week, they process 500 cattle — producing about 422,430 pounds of steak, roasts, hamburger and other products. Combined, the beef weighs more than an average railroad locomotive.

"I don't know anything else but cattle," said Homer. He touched his cowboy hat with a sandpapery finger. "It was all I knew then. It's still all I know."

Consumer demand for antibiotic-free meat has climbed as health messages have reached buyers. The shift reflects an effort to slow the spread of antibiotic-resistant "superbugs" — bacteria that have developed immunity to one or more antibiotics, claiming animals' lives and killing one infected person in the U.S. every 15 minutes.

Some people blame the crisis on doctors for over-prescribing antibiotics; others accuse livestock producers of drug overuse in food animals. But drug resistance is a wickerwork of interconnecting causes and consequences, and experts say the public should focus less on finger-pointing and more on solutions.

"If you understand antibiotic resistance, then it hasn't been explained to you adequately," said Mike Apley, veterinarian and professor at Kansas State University's College of Veterinary Medicine.

'Wonder drugs'

Antibiotics such as penicillin, dubbed the "wonder drug of World War II," have saved countless lives.

Alexander Fleming, the scientist who discovered penicillin, wrote, "When I woke up just after dawn on September 28, 1928, I certainly didn't plan to revolutionize all medicine by discovering the world's first antibiotic, or bacteria killer. But I suppose that was exactly what I did."

Yet Fleming recognized the danger of his discovery's misuse. In his 1945 Nobel Prize acceptance speech, he warned against the potential for resistance.

"But did we pay attention to that warning?" asked Ellen Silbergeld, a Johns Hopkins University professor who has worked with the World Health Organization on antibiotic resistance. "No. We humans have not been very careful in how we've managed antibiotics."

Health care providers have grown dependent on these miracle drugs. According to the Centers for Disease Control and Prevention, about 47 million antibiotic courses, or 30%, are prescribed annually in U.S. medical facilities for infections that don't need antibiotics. The result: bacteria that can survive, or resist, antibiotics used against them.

Animals, too, face drug-resistant infections.

Producers say antibiotics in moderation are as necessary to animals as to people. Humane livestock production, they say, means sick animals must be treated, not left to suffer.

The first antibiotics were not intended for animals. But in 1950, an American company, Lederle Laboratories, noticed chickens grew faster when fed the antibiotic chlortetracycline. The drugs bounded in popularity as producers used them to fatten animals, prevent disease and treat illness.

But overuse in animals, as with people, has engendered resistant bacteria. And as antibiotics become less effective, more livestock die from incurable infections.

The burden would be lightened if researchers developed new classes of antibiotics. But that's not happening.

"The antibiotic groups farmers have today are likely the same ones they'll have for the rest of their lives," said Apley of Kansas State University.

The last new antibiotic group was introduced in 1978. Since then, new antibiotics have been released, but they represent chemical modifications of existing groups rather than new classes.

This is because of the scrawny economic incentive. A U.S. Food and Drug Administration spokesperson told the Capital Press it costs about $2 billion to develop one new drug, but since doctors and veterinarians are encouraged to prescribe antibiotics in moderation, the return on that investment is slim. And because resistance can develop in six years, the long-term effectiveness of any new drug is fleeting.

That's why, Apley said, scientists call this the "post-antibiotic era." He said hospitals and farmers should use antibiotics judiciously to make sure the drugs in their toolkit keep working.

Prevention in practice

Mehrten Homer, president of the Painted Hills Natural Beef co-op, backed his truck toward the barn and, with an assist from his automated Hydra Bed, hoisted a round bale of sweet-smelling triticale onto his pickup.

Then he drove toward higher pastures, bumping along the narrow road that snaked around the ridge of the hills. It was a January morning and the yellow-brown slopes of Fossil were scumbled with white snow.

At 74 he still works outside six hours a day.

"I can't quit," he said. "Don't even know what that word means. Why retire when you love what you're doin'?"

On the hilltop, he unwound the mammoth hay bale and called the cows and their calves with a cooing noise. He coaxes rather than drives his animals to new pasture to reduce their stress.

The cows tramped forward. A bald eagle swooped overhead, and a bony coyote slipped through the grass, glancing over its shoulder before disappearing over the ridge.

Here, on 17,000 acres, Homer and his family raise cattle for Painted Hills. The majority of their animals come from auctions, but they also keep a herd of breeding stock.

The business has always raised cattle antibiotic-free. It isn't easy or cheap, Will Homer, Mehrten's son, said. But he said the beef is healthier and tastier that way.

Raising healthy cattle

The Homers use management strategies to limit illness.

For most of their lives, the cattle graze on foothills in groups of 100 head. It takes about 35 acres to support a single animal, Mehrten Homer said.

At 14 months, the cattle are moved to a feeding facility for finishing with corn, barley and alfalfa.

Perry Martin, feed lot manager, said keeping the animals robust is his priority.

"We do everything we can to keep these animals healthy and safe short of wrapping them in bubble wrap," Martin said.

A conventional feed yard affords each animal only 9 to 12 inches of bunk space at the feed trough; Martin stocks by square footage of the feedlot instead, giving each animal 200 square feet.

Genetics play another crucial part in disease prevention.

"We study genetic backgrounds and keep deep records," Martin said. "We use those lines that have a history of staying healthy."

Geography and climate play a role, too. Cattle from wetter areas are more disease-prone, he said.

Because stress leads to sickness, when new calves arrive on the ranch, they are given 24 hours to eat and rest. They also get vaccines, said Will Homer.

He has established relationships with trucking companies to ensure drivers transporting cattle drive slowly to keep animals calm.

Allowing cows to birth naturally also reduces illness, Mehrten Homer said. Calving takes place on the range underneath juniper trees — "those nasty water-sucking leeches," as he calls them — which stay dry under their canopies.

Part of preventing infections, said Will Homer, is cultivating industry knowledge. The Homers said technology has advantages, but many decisions should still be rooted in "good old-fashioned knowledge" like body scoring, a visual rating system for conditioning.

At the slaughterhouse

According to Buck McKay, a public affairs specialist for the U.S. Department of Agriculture, the agency's Food Safety and Inspection Service approves the claim "antibiotic free" and similar labeling for animals that never receive antibiotics.

To use this label, producers must provide documentation. The USDA has the right to enforce, but critics say inspections are rare.

A producer may choose to house animals that have received antibiotics in the same facility as antibiotic-free animals. The USDA merely requires these animals be marked and separated before slaughter — with a colored ear tag, for example. Producers typically sell these meats on a different market, either under their own brand name or to another.

Painted Hills Natural Beef follows this pattern. The company works with a Tyson plant in Wallula, Washington, to process their animals — "everything but the moo," as Will Homer says. In the morning, when the facility has been sterilized from the previous day, the Homers send their antibiotic-free animals to Tyson for processing. The few animals that received antibiotics when sick are sent to the slaughterhouse in a separate batch at the end of the day to avoid cross-contamination and are sold to another brand.

This method isn't foolproof. The journal Annals of Agricultural and Environmental Medicine shows antibiotic-resistant bacterial strains have been found on surface swabs from slaughterhouses across the U.S., even after cleaning. But a combination of antimicrobial spray treatments on carcasses and keeping batches of animals separated has been proven to radically reduce the amount of E. coli in processed meat.

When steaks are high

Consumer expectations are shifting, and producers are changing to meet demands.

Tyson has reduced the use of antibiotics in its chicken flocks by using probiotics, essential oils and improved breeding practices — although the business still uses some poultry feed with shared-class antibiotics.

McDonalds, Wendy's and Taco Bell no longer buy chicken from growers using medically important antibiotics. "Medically important" is a designation for antibiotics crucial to curing human diseases.

Despite the changes, Silbergeld, of Johns Hopkins, said combatting antibiotic resistance is impossible without greater public pressure to push companies to use drugs responsibly.

But public pressure is far from overpowering.

First, while 73% of U.S. consumers are more likely to choose products labeled "natural," an unregulated umbrella term that means little in practice, only 35% of consumers seek labels such as "no antibiotics," according to Information Resources Inc., a market research firm.

Second, many consumers may not be able to afford antibiotic-free options. According to Jerome Rosa of the Oregon Cattlemen's Association, "antibiotic-free" beef costs about 5-10% more than conventional beef.

The most recent data on food stamps — formally called the Supplemental Nutrition Assistance Program — shows nearly 35 million people in the U.S. receive benefits, and the average SNAP benefit per person amounts to $1.40 per meal. For many low-income families, choosing pricier labels such as "antibiotic-free," even if desirable, is not affordable.

So the market continues for meat from food animals that may have been given antibiotics.

Whatever the consumer demands, Will Homer said Painted Hills Natural Beef will keep producing beef without antibiotics.

"I actually think it's tougher on the animals," he said. "They have to be hardier. But because it's the right thing and improves meat quality, we'll keep doing it."

Oscar: Dog made three great escapes throughout his life

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an ultimate frisbee field one day.

We quickly learned that Oscar had two switches: on or off. One time, he chased a frisbee until all four of his paws were bloody.

I also feared he would disappear and die mysteriously. He made three great escapes. The most daring one happened at my husband's construction job site while I was out of town. Oscar slipped out a car window. We later learned he had been running down U.S. Highway 30. A kind woman picked him up, ran his microchip at Petco and found us days later. My husband camped in a tent all night at the job site awaiting his return, not knowing Oscar was cuddling up to his rescuers.

At 12 years old, Oscar became an international traveler when he moved with me to South Korea to teach English. I feared he would die in the bottom of an airplane cringing in fear at all the loud noises. When we returned to the U.S. three years later, he was 14 years old. I worried he only had a few years left.

When Oscar turned 19, I began to wonder if he would live forever. I let down my guard even though he had lost his ability to leap five times his height, chase a stick or dart like a squirrel. His muzzle turned gray and he grew little rings of white hairs around his eyes.

When he was 20 years old, I came home from work one evening to the sound of wailing. I rushed to find Oscar on his dog bed, legs tensed out stiff in agony and his eyes glassy.

"How long had he been like this? How could this happen while I was at work?" I asked myself.

My body filled with fear over making the right decision.

As I carried Oscar into Columbia Veterinary Hospital wrapped in a blanket he was limp and his eyes were blank and cloudy. My husband left work to join me and we stood next to the metal table. Our friend Dr. Hlavin gently told us that Oscar was dying and it was OK to let go.

At that moment, years of suspense around Oscar's death dissipated. He would not die from getting hit by a car, in the bottom of an airplane or by running himself to death. For the first time in 20 years, I knew that Oscar would die in a completely unexpected way: no fear, no drama; just surrounded by his tiny pack of humans petting his head as he gently drifted away.

Heather Douglas is a freelance writer, illustrator and educator.

Heather Douglas

Oscar traveled to South Korea with his owner when he was 12.