

For the Record

Straight talk about antibiotic use in food-animal production

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Time for some straight talk. *Today's consumers — insulated from the realities of food production — need to trust the wholesomeness of their food. At Alpharma Inc., Animal Health, we believe most of those consumers want that trust to be founded on rational thinking and sound science. Our sponsorship of For the Record will provide you some facts to communicate the science behind the half-century-old practice of using antibiotics to help produce meat, milk and eggs. By controlling common animal diseases and by helping animals grow efficiently, using less feed, antibiotics improve animal welfare and make protein more affordable for your customers.*

THE SIDE YOU MAY NOT HAVE HEARD YET

The media relentlessly reports theoretical risks that using antibiotics on farms might be making human drugs less effective. But among scientists, the issue is far from cut and dried. One team of experts, for instance, spent more than two years reviewing over 250 scholarly papers on the subject. Their conclusions, published in the *Journal of Antimicrobial Chemotherapy*, included:

■ **The actual risk to human health** is extremely small and may be zero in many cases. Many conclusions suggesting a threat to consumers are based on assumptions that science does not support.

■ **It's not just about making animals grow faster.** Critics contend farm antibiotics are an unnecessary luxury, because they're used to make animals grow faster and cheaper. Yet, the journal study authors cite work demonstrating the real world is seldom so black-and-white. Antibiotics added to animal feed do improve animal produc-

antibiotics were banned — even while U.S. *Campylobacter* cases have fallen toward record lows.

■ **Antibiotic use doesn't automatically lead to "resistance."** Critics assume medicating animals at low levels over long periods automatically makes those antibiotics grow less effective over time. That development of significant "antibiotic resistance" caused by farm use remains another unproven assumption, the experts noted. Recent studies show organic meats can actually harbor more bacteria than meat from conventional farms, and that resistant bacteria can be found on organic farms at or near the levels on conventional farms. Animal antibiotics have retained their effectiveness after decades of continual use — self-apparent evidence resistance needn't always result from their use.

■ **You can't assume food systems are at fault.** Whenever bacteria that have grown resistant to antibiotics are found in the food chain, critics universally assume the food chain is the main means of causing and spreading those organisms, the journal authors note. Although that's an "intuitively attractive" assumption, it's not necessarily correct nor significant, the experts point out. Scientists now have the ability to compare the genetic material from two sets of antibiotic-resistance bacteria — one from a farm and one from a meat case, for instance — and declare them identical. However, that genetic similarity says nothing about what caused the resistance or about how it spread, without simultaneous investigations of how those two sets of bacteria are related in time and space.

23 compounds with antibacterial activity are marketed as feed additives in the United States.

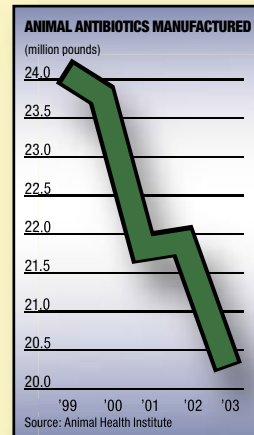
15 of those 23 have growth promotion label claims.

Only **2** of those 15 don't also have a claim to treat or prevent disease.

tivity; however, they also improve animal welfare by preventing debilitating — often deadly — diseases.

■ **Livestock antibiotics help protect human health.** Animals fed antibiotics may have lower levels of bacteria that can contaminate the food chain. Human *Campylobacter* infections in Europe, for example, have actually increased since animal-feed

Use is declining. In 2003, companies made 20.2 million pounds of antibiotics for animal use — down almost one-fifth since 1999. That's far below the erroneous



estimates opponents develop by assuming all U.S. animals are given the highest approved doses for the longest allowable time period. They're not. Only 8 percent of those 20.2 million pounds were used for purposes other than disease control — like enhancing productivity. And 43 percent belong to drug categories not used in people, and therefore not capable of changing the effectiveness of human drugs.



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