

For the Record

Straight talk about antibiotic use in food-animal production

Sponsored by ALPHARMA Inc. Animal Pharmaceuticals

INSIGHTS ON THE ISSUE

Following standard production practices? Welcome to the hotseat

"One of the most striking differences between a cat and a lie is that a cat has only nine lives."—Mark Twain, 1894

Read the paper. Turn on the TV. Glance over the current-events handouts coming home with your schoolkids. You find it everywhere: The legal and standard practice of using antibiotics in your livestock threatens people's health. Recently...

■ The American Medical Association called for a ban on all "non-therapeutic" use in animals of antibiotics that are also used in humans. Such a ban would include using those drugs to improve rate and efficiency of gain. AMA believes "over-use" of antibiotics in animals contributes to resistance in humans.

The Animal Health Institute, a trade group representing manufacturers, noted several problems in the resolution: It overstates the use of such drugs in animals, it suggests regulation that is too broad and sweeping, it confuses therapeutic and subtherapeutic uses, and its suggested solution does little or nothing to address antibiotic resistance to human drugs.

■ The US House of Representatives approved as an amendment to the 2002 Farm Bill a stalled bill that would give \$3 million to fund Food and Drug Administration efforts to monitor antibiotic resistance, including methods to limit use in agriculture.

The Center for Science in the Public Interest, the activist group that has also attacked other health threats like naturally-occurring

bacteria in oysters ("Death on the Half Shell") and movie-theater popcorn (Their solution? Sneak in your own air-popped popcorn.) cheered the appropriation. CSPI has been a longtime leader in the call to ban antibiotics for improving productivity.

■ News, magazine and scientific-journal articles continue to report the unfounded claim that using antibiotics in animals is causing resistance in humans, including:

• A Boston Globe editorial calls such use "reckless," and a threat to plunge us "back into medicine's Dark Ages."

• A Baltimore Sun editorial blames livestock producers for rendering doctors unable to fight "super bugs." Not so coincidentally, the editorial was authored by a spokesman for the Union of Concerned Scientists, a group that champions the use of electric school busses, nuclear disarmament, and non-genetically-engineered corn.

For the Record

An entire panic industry of anti-choice activists, known as the "Nanny Culture," has sprung up to dictate what we can and cannot do in our lives. It now reaches from modern farming practices to what we put on our dinner tables. It's time for us all to stand up against this new tyranny of public panic and protect our ability to provide healthy supplies of food to our customers.

This series, sponsored by a grant from ALPHARMA, is designed to help producers understand the real agenda of the consumer-panic industry, set the record straight, and offer solid information to fight back. Questions or comments? E-mail Karen.DeQuasie@Alpharma.com.

Also in this issue:

- Some history of the panic-attack tactics
- What's at stake: for us and for you
- Why can't the press get it right?
- Your allies: What industry does to protect these valuable tools

For the record

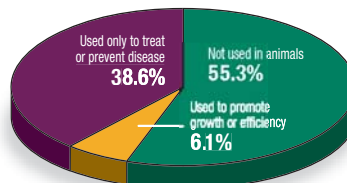
Despite a lack of any credible scientific evidence that antibiotic use in animals threatens human health, the myths abound.

MYTH-BUSTER AMMUNITION TO FIGHT BACK

Subtherapeutic antibiotic over-use...really?

Banning subtherapeutic antibiotic use in animals to reduce human resistance may be swatting at the gnat while swallowing the camel: The Animal Health Institute surveyed U.S. drug manufacturers and found that of the 50 million pounds of antibiotics produced annually, only about one third is used in animals at all. Of that percent, the majority is used not for growth promotion, but for prevention and treatment of disease.

Source: Based on survey of 1999 sales by Animal Health Institute member companies.



Some history: The tactics that led us here

Less than two short decades after the benefits of feeding antibiotics to animals were demonstrated in 1950, critics were formally presenting the theory that drug-resistant bacteria may be transferred to humans through food.

Based on a concurrent outbreak of drug-resistant human Salmonella in Britain and a Salmonella outbreak in calves, England's Swann Commission recommended severe restrictions on antibiotics in livestock. The country adopted those standards shortly after. They eventually spread throughout Europe, despite the Commission's own recognition that the connection was theoretical.

Unphased by failures in repeated attempts to legislate those same controls in this country over the following years, advocacy groups have gradually altered their tactics here.

■ In 1985, the Center for Science in the Public Interest filed legal briefs demanding FDA ban subtherapeutic use of penicillin and tetracyclines, claiming the 35-year-old practice

posed an imminent threat to public health and thus required emergency action to circumvent normal scientific review. Though the group failed, it was back again in 1999 along with 37 health and consumer groups, repeating its demand, slightly narrowed to a list of only those drugs used in humans.

■ Despite resisting such tactics to impose non-science-based solutions, FDA has recently proposed changes in how it evaluates the human safety of new food-animal drugs, based on their potential usefulness in human medicine. It also has proposed setting thresholds for when actions should be taken to stop emergence of resistant pathogens.

■ The Environmental Defense Fund has pressured the Environmental Protection Agency to view traces of antibiotics in farm effluent as an environmental hazard, and set standards for their discharge into the environment under its Confined Animal Feeding Operation permit standards.

For the record

New tactics have made antibiotic use in livestock an issue where science doesn't support the alarm

Take Action!

Help protect Americans from antibiotic resistant illnesses

Please write your Member of Congress to support a bipartisan proposal to give the federal Centers for Disease Control and Prevention an additional \$50 million to combat antibiotic resistance. The money would be used for grants to state and local governments and hospitals to help them combat a major public health problem which will continue to worsen without immediate action. [Tell me more](#)

The letter below will be emailed on your behalf



Subject:

Support Rep. Brown's floor amendment on a

Dear [Decision Maker],

(Edit Letter Below)

I urge you to support Representative Sherrod Brown's floor amendment to include funds for combating antibiotic resistance in the emergency "homeland defense" supplemental spending bill. He and Representative Sherwood Boehlert have said that such funds are needed to address a key variable in bioterrorism preparedness: antibiotic resistance. To adequately prepare for a bioterrorism attack, state and local health departments must be prepared to readily identify and respond to antibiotic-resistant strains of anthrax and other lethal agents.

These funds would be used by the Centers for Disease Control and Prevention to make grants to state and local health agencies and to hospitals so that they can buy laboratory equipment and train their personnel to increase their capacity to detect, monitor,

Sincerely,
[Your name]
[Your address]

End-around on science. New tactics of the anti-antibiotic advocates include encouraging direct consumer pressure on politicians.

CONSUMERS THE ULTIMATE CHALLENGE

Will they buy science?

Recent Iowa State studies underscore the frustrating contradictions in consumers' minds.

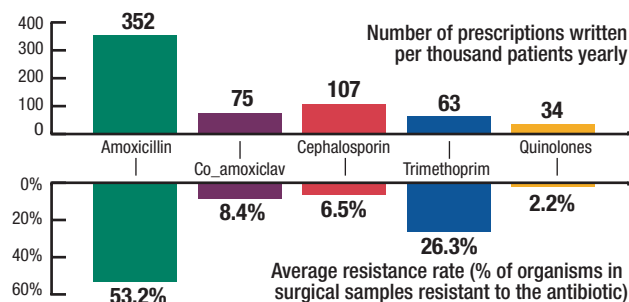
Researchers showed one set of consumers a description of food irradiation, described in scientific terms. It explained the ability of the process to remove pathogens from food and help prevent the 9,000 annual cases of U.S. food-borne illnesses. After reading, the majority of participants said they would pay extra to buy irradiated foods.

In a second trial, the description came, instead, from an anti-irradiation group that overstated irradiation's dangers. As expected, consumers responded negatively to the process.

The bad news: When a third group was shown both descriptions, they disregarded the scientific description and reacted negatively.

MYTH-BUSTER AMMUNITION TO FIGHT BACK

No studies exist that tie antibiotic use in livestock to antibiotic resistance in the general public nearby. However, such proof may now exist regarding the role human doctors play. Researchers from Wales have shown that antibiotic prescribing within geographic communities is associated with localized antibiotic resistance. The authors suggest their two-year study offers "...evidence that doctors may have to face the broader consequences of their antibiotic prescribing among their own patients."



Source: Based on about 30,000 isolates from 190 general practitioner surgeries serving about 1.2 million patients from 1996 through 1998. *British Medical Journal*, Nov. 6, 1999.

What's at stake in abandoning antibiotic use?

Few management practices have proven their value over the years as thoroughly as antibiotic feeding. They not only control and treat disease in intensive management situations, they help reduce animal pain and suffering, and economic loss due to death and disease. Thus, advocates who pressure the public to discard the practice are asking you to shoulder several significant costs:

- USDA released a thorough report last year summarizing several scientific studies on the value of

antibiotics to producers. The studies predict that ending the use of antimicrobials in intensive livestock production—specifically hogs—would likely decrease feed efficiency, raise feed costs, reduce production and raise prices to consumers.

Although the study authors note that they did not include any costs that may be caused by human health problems, they summarized studies showing a ban against using drugs in livestock production almost always comes with some cost. Results vary, but they show higher costs to producers and generally

price increases for consumers as a result of partial or total bans.

- Critics often overlook the fact that preventing disease by using livestock drugs often avoids having to treat disease with drugs important in human medicine. Bacitracin, for instance, helps promote animal performance in part by controlling enteric disease. That preventive use of a drug used only topically in human medicine helps avoid the need to treat clinical outbreaks with therapeutic antibiotics such as amoxicillin, a product widely relied upon in human medicine.

For the record

Losing antibiotic feeding would cost in animal performance plus lead to more use of therapies important for humans

Results from previous studies of full and partial bans against using antibiotic feed additives in livestock production

Study	Year study was published	Aggregate costs per year (million dollars)	Aggregate costs per year (results adjusted to 1998 dollars: million dollars)
Allen and Burbee; and Gilliam et al ¹	1972, 1973	5,660	12,707
Dworkin (Beef and pork only) ¹	1976	2,140	4,804
Mann and Paulsen ¹	1976	580	1,302
Headley ¹			
I (ban penicillin and tetracycline)	1978	1,440	3,233
II (ban nitrofurans and sulfa compounds)	1978	4,680	10,507
USDA II (moderate efficiency, penicillin, tetracyclines, sulfa drugs, and nitrofurans banned) ¹	1978	1,240	2,784
Wade and Barkley (4% decrease in Supply; Supply elasticity of 0.40; 5% increase in Demand; Demand elasticity of -2.50)			
Swine (loss in consumer surplus, 1987 dollars)	1992	11.74	16.85
Swine (loss in producer surplus, 1987 dollars)	1992	12.59	18.07
National Research Council/Institute of Medicine			
Partial ban	1998	1,261	1,281
Total ban	1998	2,527	2,566
Hayes et al.			
Losses to producers	1999	160.3	160.3
Losses to consumers	1999	748	748

Data from table 45 of the 1981 CAST report (Council for Agricultural Science and Technology, Antibiotics in Animal Feeds, Report No. 88); 5-year totals divided by 5 years.

MEDIA RELATIONS THAT GET YOUR STORY OUT

Why can't the media get it right?

Oops. When USDA released its report last year detailing the potential cost of banning antibiotics in livestock, the Associated Press headlined its story “Use of Growth Promoting Drugs on Farms Loses Money, Study Says.”

Out of an 11-page report summarizing studies that showed average losses anywhere from \$17 million to \$5.6 billion annually from banning antibiotics, AP Farm Writer Philip Brasher had extracted a single-page “thought experiment” showing hog prices were slightly reduced for the industry as a whole because antibiotics increased pork supplies by keeping more hogs alive and

gaining. The study authors noted that any industry-wide losses are compensated for on individual farms by improved productivity from antibiotics.

How could a college-educated, professional reporter so colossally miss the point?

Julian L. Simon, former University of Maryland Professor of Business Administration and up until his death a critic of junk science, offered one explanation:

Today's journalism professors tend to be schooled in the old method of reportorial interview and adversarial fact collection. That is: Find observer A, get his take, get observer B to give his,

then reproduce their opinions as fairly as possible in your story.

While that method served well to cover fires and politicians, Simon concluded, it ill prepared professors—nor their students—to report today's complex scientific issues.

Modern journalists don't understand the tools of scientific investigation necessary to distinguish scientific correlation from causation. That leaves them vulnerable to their Rolodex of “celebrity experts” or, worse yet, their own vulnerable observation and inference, shaped by the need for an “angle” that sensationalizes even the most mundane story.

For the record

Few of today's journalists are equipped with the tools to report complex science in context

Why we sponsor *For the Record*

Since late 1998, we at ALPHARMA have been fighting to protect the European producer's ability to use



Karen DeQuasie,
ALPHARMA Inc.

four common livestock antibiotics, including bacitracin zinc, the active ingredient in ALBAC® medicated

feeds. We have witnessed a string of almost purely political decisions, necessitated by the European Union's virtually overnight decision to force the laws of a single country—Sweden, which banned the use of all antibiotic growth-promotants in 1986—down the throats of all its member countries. Time and again, we have watched the EU ignore its own legal procedures that demand scientific risk assessments and economic impact studies, bowing instead to the alarmism of today's food-scare industry.

It's a trend we're trying to guard against in this country.

Today, it seems, just about anyone—with and without credentials—can fire out a fax broadcast calling a press conference, proclaim some new form of gloom and doom, and expect to see their name show up in the news as a bona-fide scientific source. Legislators and regulators, whiffing traces of public panic amplified by this new “nanny culture” and its enablers in the media, then rush through hasty changes in the law that leapfrog the normal scientific checks and balances. The media, in turn, widely report such regulatory changes, which succeeds in feeding an incestuous cycle of self-justifying junk science.

The professional hand-wringers over antibiotic use in livestock claim we—that's both you and me—are playing with a “ticking time bomb” that endangers human health. But those of us with a nickel's worth of common sense left about how livestock production really works know that the only clock ticking is

the one counting down how long it will be until our industry is no longer able to provide abundant animal protein to a hungry world.

Using scientifically-sound production tools like subtherapeutic antibiotics is not a luxury. It's a necessity if we're to keep a healthy supply of meat, milk, poultry and eggs within the budget of consumers. That ability is being jeopardized by a consumer press, advocacy industry and weak-kneed regulatory system more interested in capitalizing on sensationalism and fear than communicating facts.

We believe the time has arrived to fight back. When government and media begin to ignore the time-honored process of logical and patient scientific deliberation, our industry is left with no choice but to weigh in. It's time we left the false security of our defensive

ramparts. We must instead get aggressive about how we communicate, to fight fire with fire. We must clearly communicate the real-world implications of not having antibiotics for use in animals, giving the nanny culture a taste of their own medicine by being clear about motives and consequences. Imagine these headlines:

- World's Children Face Shortage of Crucial Protein
- Cost of Meat, Milk, Eggs Surge beyond Working Families' Reach
- Unchecked Sickness Bringing Suffering to America's Animals, Losses to Family Farmers.

I urge all of us who care about animal agriculture to aggressively change the way we communicate. The time has come to set the record straight.

Karen DeQuasie
Director Public Relations & Communications,
ALPHARMA Inc. Animal Pharmaceuticals

Coming in the next issue of *For the Record*:

- The truth about co-use between animals and humans
- Who's really causing resistance: You or your doctor?
- Who's Who of the anti-antibiotics movement: What are they selling? What real agendas are they hiding behind their message? The widening of the Nanny Culture

WORKING TOGETHER WE CAN SET THE RECORD STRAIGHT

How your suppliers can help protect use of antibiotics

Many animal health companies have responded to the public-panic industry predictably. They have either sold off their livestock drug business to concentrate on the more lucrative companion animal market, or they have exited animal health all together, to focus on their human pharmaceuticals.

ALPHARMA, maker of such recognized brands as BMD, Aureomycin and ChlorMax, plans to stay with this industry. To that end, we plan to:

- Stay in the business. At Alpharma, we believe these changes present us with an excellent opportunity to significantly grow and strengthen one of our core competencies—medicated feed additives.
- Commit to research and development. The use of antibiotics, anticoccidials and antibacterials in feed are integral health management tools for livestock and poultry producers. They are absolutely necessary to meet the world's growing demand for affordable protein. We will continue to innovate and develop these valuable tools.
- Commit to promoting prudent use. Our products fill a critical need in protecting the safety and abundance of our food supply. We are committed to their continued, prudent use, and will increase our educational efforts to ensure careful, accepted practices are followed.
- Commit to fighting the panic industry. We will use our leadership in the industry to help protect availability by countering junk science with sound science.