

# For the Record

Straight talk about antibiotic use in food animal production presented by ALPHARMA Inc., Animal Health

## BEHIND THE SPIN: A FEW REALITIES ON DENMARK'S ANTIBIOTICS 'SUCCESS'

From starving Cuba to fashionably subsistence-agricultural southern Italy, apparently the new food fashion is to hold up small countries around the world as virtuous examples for the giant U.S. food system as it fumbles its way toward "sustainability."

Now, it's Denmark. You may have heard:

- "Denmark is a pioneer in limiting the use of antibiotics, especially the type of antibiotics that can...threaten the treatment of both people and animals," Denmark's equivalent to the secretary of agriculture [Eva Kjer Hansen](#) boasted.
- Activist fundraiser and now the Pew Trusts' authority on farming [Laura Rogers](#) lectured liberal bloggers that consumers should ignore all that [ugly, agribusiness-driven criticism](#) questioning the lack of any real results following Denmark's ban on farmers' ability to freely medicate farm animals. They should instead simply urge Congress to follow suit here.

### LAW OF UNINTENDED CONSEQUENCE

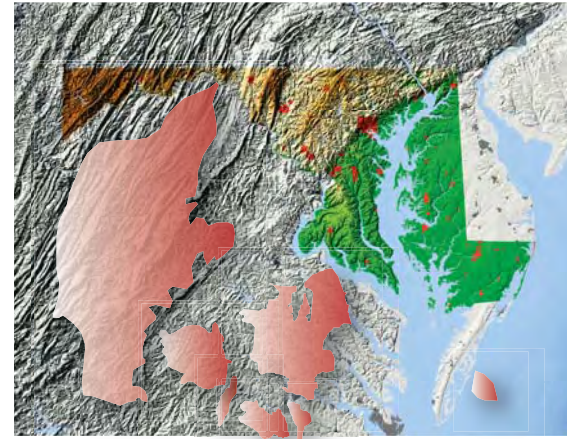
Despite warnings more than a decade ago from the European Union's own Scientific Committee for Animal Nutrition, a diverse

panel of expert animal scientists, that the [science did not support a ban](#), Europe's ban is often held up to the U.S. as a successful model to follow. However, behind the dismissal of legitimate criticism lies some disturbing longterm unintended consequences of the hasty legislation.

It is now well established by the Danes themselves that when the full ban took effect by 1999, pig producers [reported increased disease](#), death loss and performance losses, most often due to intestinal disease that, in retrospect, we now know was being controlled by the low level use of antibiotics.

Although health and productivity eventually returned, that increase in disease outbreaks forced veterinarians to dig into the arsenal of drugs reserved for treating disease. The use of such drugs has increased steadily by about 5 metric tons annually, and is now 66 percent higher than it was a decade ago.

Similar patterns of increased drug use to treat disease after outlawing low-level use for growth occurred in other countries, most notably Sweden, France, Germany, the United Kingdom and the Netherlands, which has doubled its use of antibiotics to treat dis-



### LESSONS FROM A NICHE MARKET?

With an area roughly equivalent to only Maryland and the DelMarVa Peninsula, raising less than a quarter of the hogs the U.S. does and controlled by a system that tightly controls farms' decision-making, Denmark makes an interesting niche study in banning antibiotics. But extending its conclusions to this country's giant, diverse farming system would be risky.

ease, due in part to the ban on low-level use, acknowledges that country's tracking agency.

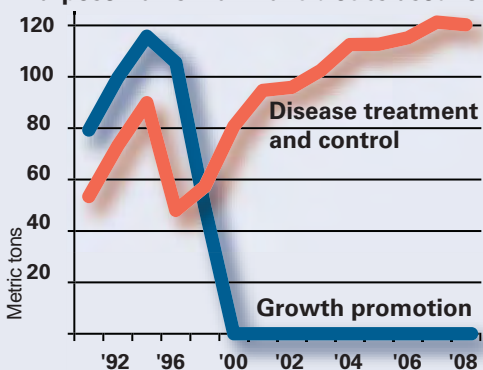
The dangerous irony is that by increasing the use of the more important antibiotics to treat disease, the possible [human risk impact could increase](#) as a result of the ban.

### Politics meets the real world of animal agriculture

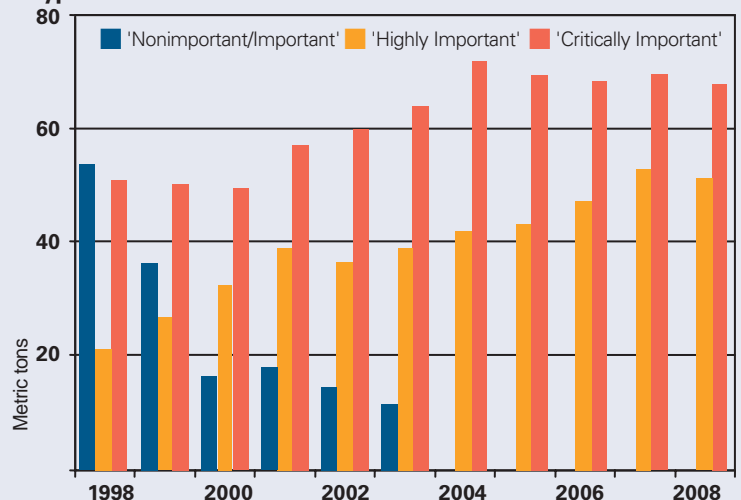
Ignoring warnings that "growth promoting" antibiotics were important tools farmers used to help keep animals healthy, Danish politicians banned them after 1999. The result: Veterinarians were [forced to prescribe more antibiotics](#) to control disease. The more important story is this: The banned drugs tended to be those considered less critical to human health, while the more heavily prescribed

drugs are those antibiotics deemed critical to protecting humans. In the long run, the pattern of use clearly demonstrates the ban has encouraged more — not less — use of antibiotics that could pose a risk to human treatments.

### Purpose Danish farm antibiotics used for



### Type of antibiotics used in Danish farm animals



As categorized for their importance to human medicine by the UN Food and Agriculture Organization, the World Health Organization and the World Organization for Animal Health. "Critically Important:" Glycopeptides, avilamycin, penicillins, aminoglycosides, streptogramins, macrolides, fluoroquinolones and cephalosporins/other penicillins. "Highly Important:" Tetracyclines and sulfonamides. "Nonimportant/Important:" Flavofolipol, quinoxalines, coccidiostats and bacitracin.

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**FAQs about supporting a sustainable system of small, independent farmers**

*For the Record* is a regular publication designed to present facts to balance today's debate over the use of safe, effective, economical methods farmers use to produce your milk, meat and eggs.

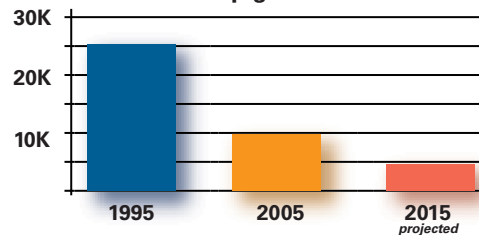
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Q Doesn't ending the indiscriminate use of antibiotics by huge "factory farms" ultimately help support small, local farmers who are raising sustainable meat, milk and eggs? Isn't that the real success story in Denmark and other European countries?

A No. In fact, just as some observers warned would happen, the loss of antibiotics needed to help keep pigs healthy during the critical transition from their mother's milk to feed may have hit particularly hard on the smaller family farms there. Those small farmers are believed to have been less able to obtain funding needed to make the necessary changes to keep animals healthy without full access to

medications, including retrofitting barns with upgraded ventilation and heating systems. They also were those least able to absorb the increased facility costs caused by pigs taking longer to reach market. Whether as coincidence or result of the ban, the number of pig farms in Denmark has plummeted in the past decade.

**Number of Danish pig farms**



## WHERE ARE EUROPE'S HEALTH IMPROVEMENTS?

When the World Health Organization praised Denmark as a "success" in restricting farmers' freedom to employ farm antibiotics, it was careful to define that success as simply that it had "achieved a reduction in the reservoir of resistant microorganisms in food animals." Nothing was said about any improvements the ban had made in the ability of human antibiotics to control human disease.

After 10 years, the crucial question is what impact the farm animal antibiotic ban across Europe has made on drug-resistant bacteria in humans that may plausibly have come to them via their food from farm animals. Specifically, that includes the bacteria *Campylobacter* or *Salmonella* — which colonize animals and also cause human food-borne disease — as well as bacteria like *Enterococcus*, normal inhabitants of the intestines of both animals and people which typically remain harmless, even if resistant.

The answer to that critical question, when it comes to *Campylobacter*, is that it appears the ban only reinforces that [there's little connection](#) between the use of animal drugs

and resistance in humans. Its rate of resistance against the human antibiotic erythromycin hasn't changed in a decade, and it's still higher than the rate of resistance to the same drug class in chickens. At the same time, *Campylobacter's* four-fold leap in rate of resistance in humans against other antibiotics that are used only sparingly in Danish food animals suggests something besides animal use is to blame.

Meanwhile, Europe continues to fail to eliminate *Enterococcus faecium* resistant to the antibiotic vancomycin, the animal form of which it banned more than a decade ago. Over the past seven years, the incidence of such vancomycin resistant bacteria in hospital patients has fallen in only three countries, while it has increased significantly in six others and remained unchanged in the rest.



## MAY WE HAVE YOUR OPINIONS ABOUT ANTIBIOTICS IN FOOD PRODUCTION?

Share them here and you could WIN A \$100 GIFT CARD

**Check one:** Which best characterizes your opinion about meat, milk and eggs sold to consumers as "raised without antibiotics?"

- It's necessary to protect the health and safety of food consumers
- It's market positioning that means little in terms of health and safety
- Food consumers demand it, so we must supply it, regardless of what we believe
- Other. Please explain here:

**Circle one:** I believe antibiotic use in farm animals and poultry should/should not be banned by law or severely restricted. Why?

- Check one:** If farmers were no longer able to use antibiotics, my business...:
- Would be better off
  - Would be worse off
  - Would be no different
  - Don't know/N.A.

- Check any that apply:** I believe farmers should be able to use antibiotics...:
- To treat disease
  - To prevent disease
  - To help animals grow faster
  - To help preserve feed/resources
  - Not at all

**Check one:** Which is your primary business:

- Grocery
- Restaurant/food service
- Other retail
- Government
- Association
- Consultant
- Veterinarian or animal nutritionist
- Other: \_\_\_\_\_

**Check one:** Which job title best applies:

- Manager/owner/dept. head
- Buyer
- Chef or culinary support
- Policy maker/staff
- Media/Communication/Public relations
- Other: \_\_\_\_\_

**Check one:** How regularly would you say you read this publication, *For the Record*?

- Every issue
- Most
- Some
- None
- This is the first issue I've seen

**Check one:** Has it changed how you do business?

- Yes
- No

Fold here to conceal your information, tape closed and mail (no postage needed)

**Check any that apply:** As a result of reading *For the Record*,...

- I have actively sought out additional information about the issue of antibiotics in animals
- I have discussed the issue of antibiotics in food production with...
  - Decision makers in my organization
  - Decision makers outside my organization
  - Customers/constituents
- I have not changed my mind about the issue
- I have changed my mind about the issue

**Circle one per line:** How would you rate *For the Record* on...

	← Poor		Excellent →		
Credibility?	1	2	3	4	5
Fairness?	1	2	3	4	5
Impact on my belief about antibiotics	1	2	3	4	5
Usefulness in understanding issues	1	2	3	4	5

Usefulness in helping explain the issue to food consumers 1 2 3 4 5

**Any additional comments or questions for the editors? Tell us here:**

Have you visited AntibioticTruths.com?  Yes  No

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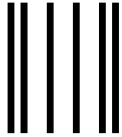
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□ Why the spin surrounding Denmark could be risky if it leads regulators to apply that country's niche market experience to the U.S.

□ How the farm antibiotic ban has inadvertently led to an increase in antibiotics believed to most critical to human health.

□ Denmark, held up as the example of the need to strictly control farmers' access to antibiotics, hasn't succeeded quite as the publicity suggests:

## INSIDE THIS ISSUE

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