Patrick Boyle: Environmental impact- fact vs. fiction

The meat industry has had to contend with inaccuracies regarding meat's impact on the environment

MeatPoultry.com, October 12, 2010

by J. Patrick Boyle

One of the major problems with our modern and efficient system of mass communication is that once an error from an otherwise credible source is launched into cyberspace, it can quickly become viral; being repeated, retooled and rephrased until the initial fallacy and its ugly offspring become mistaken for established fact. This is the exact problem the meat and poultry industry faces in our attempted discussions regarding the impact of animal agriculture on the environment.

For the meat industry, the granddaddy of all bad facts is the oft cited-quote from a 2006 United Nations Food and Agriculture Organization (FAO) study claiming: "Livestock are responsible for 18 percent of greenhouses gases, a bigger share than transport." Once this fallacy was borne, it was quick to reproduce. The best example by far comes from *TIME Magazine*, which cites the FAO number in its article titled "The Global Warming Survival Guide," and posits this question to its readers: "Which is responsible for more global warming: your BMW or your Big Mac? Believe it or not, it's the burger." The article goes on to explain that "given the amount of energy consumed raising, shipping and selling livestock, a 16-oz.T-bone is like a Hummer on a plate." *TIME's* recommendation to its readers: "Skip the steak."

But the misinformation did not stop there. As is often the case with these "factoids," the 18 percent inaccuracy was picked up by Wikipedia, Facebook, blogs, and influential news sources including CNN and *Salon Magazine*.

This gross error went largely unchallenged for several years until Frank Mitloehner, Ph.D., at the University of California Davis, examined the FAO claim and discovered the calculation was based on an unequal application of lifecycle assessments. In a nutshell, FAO only used direct emissions to calculate transportation's carbon footprint. FAO used two emission sources (both direct and indirect emissions) to calculate livestock's carbon footprint. Thus, Mitloehner concluded FAO was comparing "apples to oranges." That comparison has since been acknowledged by Pierre Gerber, livestock officer at the FAO, and the comparison is under review.

The livestock sector's true contribution to GHG emissions is around three percent, according to the U.S. Environmental Protection Agency (EPA). As Mitloehner correctly pointed out to the FAO, the second problem with their 18 percent figure is that it is a global average and not applicable to the U.S. In the highly efficient U.S. production system, livestock account for a much smaller percentage of emissions than in developing countries.

Emissions from animal agriculture come from a process called enteric fermentation (the digestion of feed by ruminant animals like cattle and sheep) and through manure management. In developing countries, livestock's contributions to a country's total GHG emissions can be significant due to a less productive animal protein industry, massive deforestation, and inefficient transportation and energy sectors. The efficiency of production in the U.S. has resulted in a much less significant livestock footprint. Since 1990, animal agriculture's contribution to national GHG emissions has remained nearly constant in the U.S., which is impressive considering the U.S. has increased its meat production by almost 50 percent and milk production by 16 percent.

The meat industry has also had to contend with other fast-spreading inaccuracies regarding meat's impact on the environment. One such inaccuracy is that "modern" agriculture production practices lead to elevated GHG emissions when compared to "traditional" production practices which are more "environmentally friendly." The exact opposite is true.

A study by the Department of Environmental Earth System Science at Stanford University concludes that the "climatic

impacts of historical agricultural intensification [modern] were preferable to those of a system with lower inputs [traditional] that instead expanded cropland to meet global demand for food. The study noted that “careful and efficient management of nutrients and water by precision farming, incorporation of crop residues and less intensive tillage are critical practices in pursuit of sustainable and increased agricultural output.”

As is often the case, the good news does not seem to spread as quickly or stick as effectively as the bad news. Unfortunately for this industry, the fact that our food supply is safe, affordable and plentiful is not a front-page headline.

For example, how many people know Americans spend less per capita on meat and poultry products than citizens in any other country, or that over the last 10 years, pathogens like *E. coli* O157:H7, *Listeria* monocytogenes and *Campylobacter* have all decreased dramatically in meat and poultry products? And these are just a few of the real numbers worth remembering and repeating.

AMI’s new factsheet on GHG and animal agriculture, fact vs. fallacy is here: http://bit.ly/dwb0pO.

Patrick Boyle is president and CEO of the American Meat Institute, based in Washington D.C.