The Constant Drip: How Ongoing Negative Media Coverage Is Impacting Animal Agriculture and What We Can Do About It

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Media Landscape

- Newspapers: -16,000 Jobs
- Magazines: -38,000 Jobs
- TV & Radio: Ratings Hold Steady

- Digital Media Boom
  - 5000+ New jobs

Native Digital News Organizations Grow Their Staff

<table>
<thead>
<tr>
<th>Digital News Organization</th>
<th>Number of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vice</td>
<td>1,100</td>
</tr>
<tr>
<td>Huffington Post</td>
<td>676</td>
</tr>
<tr>
<td>Politico</td>
<td>100</td>
</tr>
<tr>
<td>BuzzFeed</td>
<td>170</td>
</tr>
<tr>
<td>Bleacher Report</td>
<td>140</td>
</tr>
<tr>
<td>Gawker</td>
<td>132</td>
</tr>
<tr>
<td>Mashable</td>
<td>70</td>
</tr>
<tr>
<td>Business Insider</td>
<td>70</td>
</tr>
</tbody>
</table>

*All numbers represent full-time editorial staff, except for Vice number which includes all full-time staff.

Source: Interviews
PEW RESEARCH CENTER
From the New York Times...

...But Many Competitors Are Growing Faster

Huffington Post surpassed us years ago in reader traffic, and BuzzFeed pulled ahead in 2013.
Where People Get News

Where People Got News Yesterday

- Watched news on TV
- Read a newspaper
- Listened to radio news
- Got online/mobile news

PEW RESEARCH CENTER 2012 News Consumption Survey. Q9, Q11, Q13, Q17, Q20 Q21, Q70, Q75, Q82, Q87.
Then and Now
Political Leanings of US Journalists vs. the Public in 2002

- Pretty far to the left
- A little to the left
- Middle of the road
- A little to the right
- Pretty far to the right
Formula Attracts Viewers

• Juxtapose black against white, good against bad
  – Victim = person who became ill/injured; animal harmed
  – Villain = meat industry
  – Vindicator = government inspector

• Media’s definition of balance: spokesperson from each camp, regardless of size, credibility

• Context seems optional to many media
Books, Movies and TV Shows

“Big Food,” “Factory Farming”
Time’s Top 30 Most Influential People on the Internet
Half of Dr. Oz's medical advice is baseless or wrong, study says

Dr. Oz's "miraculous" claims (4:27)

It's not hard to understand what makes Dr. Oz so popular. Called "America's doctor," syndicated talk show host Mehmet Oz speaks in a way anyone can understand. Medicine may be complex. But with Dr. Oz, clad in scrubs and addressing millions of viewers about "miracles" and "revolutionary" home treatments, it's often not. He somehow makes it fun. And people can't get enough.

"I haven't seen a doctor in eight years," the New Yorker quoted one viewer telling Oz. "I'm ruined. You're the only one I trust.

But is that trust misplaced? Or has Oz, who often peddles miracle cures for weight loss and other maladies, mismatched medical veracity for entertainment value?"
Price and appearance continue to be drivers...but controversy can derail
With Appreciation
to the
American Meat Science
Association
For their technical contributions
and expert review
Not going to dignify that with a response.
Save Our Water: The Vegetarian Way

We all need clean water. No doubt about it. HOW to get it and keep it running clean and plentiful is becoming a problem almost everywhere. In fact, the United Nations Food and Agricultural Organization (FAO) predicts in a report titled "Livestock’s Long Shadow" that by 2050, two-thirds of people worldwide will lack clean water to meet even their basic needs.

The good news is that one part of the solution is easy and close at hand: it all starts with your fork.

“Livestock are one of the most significant contributors to today’s most serious environmental problems. Urgent action is required to rectify the situation.”

H. Steinfield, senior author, Livestock’s Long Shadow, a report from the United Nations

Saving Earth’s Water By Eating A Vegetarian Diet

Did you know that the largest user of fresh water is the livestock industry? Water is directly needed for drinking and cleaning of animals. And that’s a lot of water when we’re talking about over 10 billion animals raised for food in the United States alone every year.

But the biggest way animal agriculture consumes water is indirectly. A large amount of fresh water is used to grow the feed that livestock animals eat.

By comparison, it takes a lot less water to grow the grains, beans, legumes, fruits, and vegetables that make up a typical vegetarian diet. Here’s how the numbers stack up according to researchers whose work is cited in the U.N.’s Livestock’s Long Shadow:

Table 1. Estimated Amount of Water in Liters Used to Produce One Kilogram of Food in the U.S. (Note: One liter (L) is approximately the same as one quart. One kilogram (kg) is approximately the same as 2.2 lbs.)

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Hoekstra &amp; Chapagain L/kg</th>
<th>Zimmer &amp; Reunan L/kg</th>
<th>Pimentel, Berger, Filiberto, et al. L/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>600</td>
<td>700</td>
<td>650</td>
</tr>
<tr>
<td>Wheat</td>
<td>860</td>
<td>1,200</td>
<td>900</td>
</tr>
<tr>
<td>Soybeans</td>
<td>1,900</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>Rice</td>
<td>1,600</td>
<td>1,400</td>
<td>1,600</td>
</tr>
</tbody>
</table>
Myth: It Takes 2400 Gallons of Water to Make a Pound of Beef

Fact:
The 2400 number may have been true 30 to 40 years ago, but modern beef production has improved significantly over time as better husbandry practices have actually reduced water usage. Today it takes 441 gallons of water to produce one pound of boneless beef.

The large numbers often cited also rely on averaged global data. Other nations use more water than we do in the United States to raise livestock.

Dig deeper...
While 441 gallons might sound like a lot, it is important to keep this number in context compared to other products. It takes 713 gallons of water to make one cotton t-shirt, 30,000 to manufacture a car and 36 million gallons a day leaks from the New York City water supply system. Beef producers are always looking for ways to reduce their water use but while maintaining a high level of care for the
The Facts:

• The “2,400 number” may have been true 30 to 40 years ago, but modern beef production has improved, water usage reduced.

• Today it takes 441 gallons of water to produce one pound of boneless beef.\textsuperscript{1}

• The large numbers often cited also rely on averaged global data. Other nations use more water than we do in the United States to raise livestock.

• While 441 gallons might sound like a lot, but context needed.
  – 713 gallons of water to make one cotton t-shirt,
  – 39,090 to manufacture a car and

• Grain fed animals grow to the market size 226 days faster than grass fed, so grass fed beef ends up using a lot more water.

• More Context: Just letting a faucet drip at one drip per second can use 3,000 gallons of water a year.
# More Context!

## Data summary

Typical values for the volume of water required to produce common foodstuffs

<table>
<thead>
<tr>
<th>Foodstuff</th>
<th>Quantity</th>
<th>Water consumption, litres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate</td>
<td>1 kg</td>
<td>17.946</td>
</tr>
<tr>
<td>Beef</td>
<td>1 kg</td>
<td>15.415</td>
</tr>
<tr>
<td>Sheep Meat</td>
<td>1 kg</td>
<td>10.412</td>
</tr>
<tr>
<td>Pork</td>
<td>1 kg</td>
<td>5.988</td>
</tr>
<tr>
<td>Butter</td>
<td>1 kg</td>
<td>5.553</td>
</tr>
<tr>
<td>Chicken meat</td>
<td>1 kg</td>
<td>4.325</td>
</tr>
<tr>
<td>Cheese</td>
<td>1 kg</td>
<td>3.078</td>
</tr>
<tr>
<td>Olives</td>
<td>1 kg</td>
<td>3.025</td>
</tr>
<tr>
<td>Rice</td>
<td>1 kg</td>
<td>2.497</td>
</tr>
<tr>
<td>Cotton</td>
<td>1 @ 250g</td>
<td>2.495</td>
</tr>
<tr>
<td>Pasta (dry)</td>
<td>1 kg</td>
<td>1.849</td>
</tr>
<tr>
<td>Bread</td>
<td>1 kg</td>
<td>1.604</td>
</tr>
<tr>
<td>Pizza</td>
<td>1 unit</td>
<td>1.239</td>
</tr>
<tr>
<td>Apple</td>
<td>1 kg</td>
<td>0.822</td>
</tr>
<tr>
<td>Banana</td>
<td>1 kg</td>
<td>0.790</td>
</tr>
<tr>
<td>Potatoes</td>
<td>1 kg</td>
<td>0.287</td>
</tr>
<tr>
<td>Milk</td>
<td>1 x 250ml glass</td>
<td>0.255</td>
</tr>
<tr>
<td>Cabbage</td>
<td>1 kg</td>
<td>0.237</td>
</tr>
<tr>
<td>Tomato</td>
<td>1 kg</td>
<td>0.214</td>
</tr>
<tr>
<td>Egg</td>
<td>1</td>
<td>0.196</td>
</tr>
<tr>
<td>Wine</td>
<td>1 x 250ml glass</td>
<td>0.109</td>
</tr>
<tr>
<td>Beer</td>
<td>1 x 250ml glass</td>
<td>0.74</td>
</tr>
<tr>
<td>Tea</td>
<td>1 x 250 ml cup</td>
<td>0.27</td>
</tr>
</tbody>
</table>
Myth: Going Meatless One Day a Week Can Have a Significant Environmental Impact

Fact:
The data shows that reducing meat consumption one day per week as recommended by the Meatless Monday campaign has a negligible impact on greenhouse gas emissions. According to the Environmental Protection Agency (EPA), just 3.4 percent of greenhouse gas emissions are from livestock agriculture, with beef contributing 1.4 percent. If all Americans were to cut out beef one day a week, this would reduce their carbon footprint by just .2 percent. Considering that energy production and transportation are responsible for 31 and 26 percent respectively, individual changes within these areas can have a much more significant impact. Overstating the impact of livestock production can distract consumer attention from areas with the potential to have far greater environmental impact.

Dig deeper...
Much of the attention on the impact of livestock production on greenhouse gas emissions can be traced to the 2006 United Nations report, "Livestock's Long Shadow" which cited livestock's contribution to greenhouse gas emissions at 18 percent, higher than transportation. However, further research has shown that because of that report's focus on worldwide agriculture, it overestimated the regional impact, particularly in developed nations such as the United States. The report also...
The Facts

- Reducing meat consumption one day per week has a negligible impact
- EPA: just 3.4% of GHGs from livestock
- If Americans cut meat one day a week, this would reduce their carbon footprint by .2%
  - Energy production and transportation are responsible for 31% and 26%
  - Myth traced to the 2006 UN report, "Livestock's Long Shadow" which calculated livestock’s greenhouse gas emissions at 18%
  - Report overestimated the impact, in developed nations like the U.S.
  - The report also added emissions from farm to table, including gases produced by growing animal feed; animals' digestive emissions; and meat and milk processing.
  - Transportation analysis did not similarly add emissions from well to wheel.
Deconstructing Environmental Issues

• New technology = smaller footprint than in past
• With larger footprint than other foods comes more nutrition
Consumer Polling

- 2,100 Americans polled online
- March 2010
- Indicated agreement with a series of myths reported in media, films, books and movies
- Posed some of the myths to leading experts from universities nationwide
Myth #1: Hormones in Poultry

• What may you have read or seen:

“Beef do get the growth hormones, and I think chicken and pigs do too… this stimulates their growth.” -- wrong
– Michael Pollan, author, Omnivore’s Dilemma in UC Berkeley News.

Image at right is from the film Food, Inc.
The Facts

• All multi-cellular organisms contain hormones.
• Livestock and poultry can be produced without added hormones.
• But no meat, poultry, vegetable or bean is “hormone free.” It’s impossible!
• By federal law, hormones cannot be used in poultry production.
• Poultry size has increased due to breeding, genetics.
Myth #2: Hormones in Pork

• What you may have heard or seen:

“All of our animals are hormone, antibiotic, and stress free,” New York pork producer’s website
The Facts

• By federal law, hormones cannot be used in pig production.

• Between 1980-2005, changes in genetics and feeding programs have reduced days to harvest by 15 percent and increased lean muscle by 45 percent.*
  – *Translation: pigs today grow bigger faster thanks to genetics and nutrition.*

Myth #3: Hormones in Beef

• What you may have seen or heard:
  --“Hormone free” beef is safer – incorrect.
  --Beef from cattle treated with hormones will increase hormone levels in beef eaters – incorrect.
  --That added hormones in beef can increase the risk of diseases like cancer – incorrect.
# The Facts

Estrogenic Activity in Food  
*(nanograms per pound of food)*

<table>
<thead>
<tr>
<th>Food</th>
<th>Estrogenic Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybean oil</td>
<td>908,000</td>
</tr>
<tr>
<td>Cabbage</td>
<td>10,986</td>
</tr>
<tr>
<td>Eggs</td>
<td>15,890</td>
</tr>
<tr>
<td>Milk</td>
<td>59</td>
</tr>
<tr>
<td>Beef from pregnant cow</td>
<td>636</td>
</tr>
<tr>
<td>Beef from implanted cow</td>
<td>10</td>
</tr>
<tr>
<td>Beef non-implanted cow</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: Adapted from Preston, 1997/Meat is Neat by Chris Raines, Ph.D.
# Estrogen Produced In Nanograms Per Day

<table>
<thead>
<tr>
<th>Item</th>
<th>Estrogen levels in Item (nanograms per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnant women</td>
<td>90,000,000</td>
</tr>
<tr>
<td>Non-pregnant women</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Adult men</td>
<td>100,000</td>
</tr>
<tr>
<td>Pre-pubertal Children</td>
<td>40,000</td>
</tr>
<tr>
<td>3 oz. beef from implanted cow</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Source: Adapted from Preston, 1997/Meat is Neat by Chris Raines, PhD.
Myth #4: Meat Consumption, Saturated Fat and Heart Disease

• What you may have heard:
  – Americans eat too much meat
  – Meat contains saturated fat
  – Saturated fat causes coronary heart disease
The Facts

• U.S. Dietary Guidelines recommend 5-7 ounces from the meat and beans group per day depending upon age and physical activity.

• Men eat 6.9 ounces and women eat 4.4 ounces of meat and poultry per day.
On average, we eat the correct amount of meat. But … we need to eat more fruits, veggies and whole grains!
The Facts

• There are approximately 40 cuts of meat that qualify as lean.
• All cuts of meat can be enjoyed as part of a balanced diet.
• A new and very large Harvard study found no relationship between saturated fat and heart disease.*

Conclusions: “A meta-analysis of prospective epidemiologic studies showed that there is no significant evidence for concluding that dietary saturated fat is associated with an increased risk of CHD or CVD.”
Myth #5: Antibiotic Use in Livestock Production and Safety

• What you may have heard:
  – Antibiotic use is increasing due to the way livestock are produced in the U.S. – incorrect
  – Meat contains antibiotic residues. – incorrect
  – Eating meat from animals that received antibiotics can cause antibiotic resistance in people. – incorrect
The Facts

• FDA regulates the use of veterinary antibiotics.
• The vast majority (approx. 87 percent) of antibiotics used in livestock production are used to treat, prevent and control disease.
• By using antibiotics early to *prevent and control diseases* in herds, producers can actually use less than the might have to if the herd becomes infected and they must *treat* a full blown-illness.
The Facts

• Livestock and poultry that have been given antibiotics for any reason may not be processed until antibiotics have cleared their systems.
• USDA monitors meat to ensure that no residues are present.
• National monitoring shows that the incidence of antibiotic resistant bacteria on raw meat and poultry as a percent of all bacteria is extremely low.
• All bacteria – whether resistant or not – are destroyed through normal cooking.
The Facts

• “Antibiotic resistance” occurs when germs evolve to resist some antibiotics’ power to destroy them.
• If a person becomes infected with a germ that is resistant to antibiotics, the risks can be serious.
• Experts say that over-prescription of antibiotics to people has played a more significant role in the creation of antibiotic resistant bacteria.
• Most human-acquired antibiotic resistant infections are acquired in hospitals and are the result of administration of antibiotics to humans.
Myth #6: Sodium Nitrite Sources

• What you may have heard:
  – Sodium nitrate and/or sodium nitrite come from cured meats – *partially true*
  – The majority of the nitrite people consume comes from cured meats – *wrong*
The Facts

• 93 percent of nitrite intake comes from nitrate-containing vegetables.
  – Spinach, beets, cabbage, celery, lettuce, pomegranate contain highest amounts

• Nitrate becomes nitrite in the mouth.

• Less than five percent of daily nitrite intake comes from cured meats.
Myth #7: Sodium Nitrite Safety

• What you may have heard:
  – Nitrite causes cancer – wrong.
  – To reduce cancer risk, reduce cured meat consumption – wrong.
The Facts

• Nitrite MAKES meat SAFE by preventing the very real risk of botulism.

• After nitrite’s safety was questioned, the National Toxicology Program (NTP) fed rodents high levels of nitrite.
  – It did not cause cancer.
  – Nitrite not on the U.S. NTP list of carcinogens

• New research reveals nitrite’s health benefits.
  – Controlling blood pressure, promoting wound healing, treating sickle cell anemia and other conditions
Myth #8: Meat is Less Safe Today than in the Past

• What you may have heard…
  – There are higher levels of bacteria on meat and poultry today than in the past – wrong.
  – These higher levels are due to less safe production and meat processing – wrong.
The Facts

• New anti-bacterial technologies have reduced bacteria on meat and poultry to levels never thought possible.
  – *E. coli* O157:H7 positive tests in ground beef down 63 percent (2000-09)
  – *Listeria monocytogenes* on ready-to-eat meats down 69 percent (2000-08)

• Foodborne illnesses are on a sustained downward trend, according to the CDC.
The Facts

• All meat packing plants have continuous inspection.
• Processing plants have daily inspection.
• Large plants may have two dozen inspectors present during two shifts.
• USDA is more heavily staffed today per plant than it ever has been.
The Facts

• Inspectors can take a variety of microbiological tests to ensure safety.
• Inspectors may condemn live animals and meat, stop lines and equipment.
• USDA may detain and seize product that they believe is unsafe.
Myth #10: There is Little Oversight of Animal Welfare in Plants and No Economic Benefit Derived from Ensuring Welfare

• What you may have heard….
  – Inspectors rarely monitor animal welfare in meat packing plants – wrong.
  – Abuse is common – wrong.
The Facts

• Enforcement of humane slaughter rules in plants is continuous.
• Inspectors can take a wide range of actions for violations.
• There are distinct quality benefits derived from good animal welfare.
Good Welfare = Good Quality

Stress produces lower quality meat

- In pork...
  - Dry, firm and dark
  - Pale, soft, watery

- In beef...
  - “Dark cutters”
  - Reduced value/consumer acceptance
Myth #11: It’s Unnatural to Feed Cattle Corn and Grain

- Cattle are herbivores and aren’t meant to eat corn – **wrong**.
- Corn isn’t good for cattle – **wrong**.
The Facts

• All cattle are grass-fed
• Some cattle are fed corn-based rations prepared by a nutritionist in a feedlot for the last few months of their lives to add weight and, in turn, more meat.
  – Corn-fed cattle corn spend roughly 20 percent of their lives in a feedlot.
  – Corn is highly nutritious seed of a grass
  – When given choice, cattle choose corn.
Myth #12: Beef from Grass-Fed Cattle Is Safer

• What you may have heard…
  – Feeding cattle corn causes *E. coli* O157:H7 to develop – *wrong*.
  – Feeding cattle hay prevents *E. coli* – *wrong*.
  – If you eat grass-fed beef, you don’t have to worry about *E. coli* – *wrong*. 
The Facts

- *E. coli* O157:H7 can be found in the gut of all cattle, regardless of diet.
- It is found in the gut of wild animals like deer that are never fed corn or other grains.
- USDA data show that *E. coli* O157:H7 is found at extremely low levels in ground beef – only 1 out 400 samples – and is destroyed by cooking.
Myth #13: Beef from Grass-Fed Cattle Is More Nutritious

• What you may have heard…
  – Grass fed beef is leaner than corn-fed beef – partially true
  – Grass-fed beef has higher levels of omega-3s than corn-fed beef – partially true
The Facts

• Saturated fatty acids are slightly lower in grass fed beef and omega 3s are slightly higher – but these differences are extremely small.

• As perspective, consider that salmon contains 35 times more omega 3s than beef.
What Can We Do?

• Engage -- If we don’t, others will fill the info vacuum.
• Be real – that’s what makes us believable.
• Be timely – don’t let perfection be enemy of the good.
• Be as active and passionate as they are.
• Hold them accountable.
• Don’t just tell – show. Use visuals, videos, like Glass Walls.
• Communicate directly using multiple vehicles from Twitter to the Jon Stewart show.
What Can We Do?
Steal The Playbook on Occasion.
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