Rolling Stone has published statements about the North Carolina pork industry that are inaccurate, false, deceptive, and/or violate standard journalistic ethics, which require fairness, accuracy and diligent efforts to include context.

This statement is not a comprehensive account of each mistake or error but is instead meant to convey that there is a serious deficiency in accuracy with what the magazine has published.

The story makes many errors, many properly characterized as small or of lesser consequence. Large errors – and getting the entire story wrong – are another. In this case, that is what has happened.

Rolling Stone should, at the very least, immediately correct its errors while prominently incorporating correct information into the story as published online. It should include an editorial note on top of the story that acknowledges the multiple mistakes contained in the original article. It should publish corrections and an explanation to its readers in its printed product if changes cannot be made to the printed version.

There are five main concerns with the story:

- The false premise that China outsources its pork production to the United States.
- The false allegations of environmental racism and the failure to acknowledge data that clearly demonstrates that minorities are not disproportionately located near hog farms in North Carolina.
- The misleading, incorrect and incomplete information about health studies, in particular the asthma study that is highlighted in the story.
- The false and misleading characterization of North Carolina’s hog farm regulations as lax.
- The misleading description of the irrigation system used by the farm near Rene Miller’s home.

We have cited several examples below and provided comments.

**THE ISSUE OF CHINA**

Rolling Stone: “Why is China treating North Carolina like the developing world? How lax regulation made it cheaper for China to outsource pork production – and all of its environmental and human costs – to the U.S.”

You publish a host of similar, related comments throughout describing China as outsourcing pork production at a cost to people in North Carolina.

**Facts:**
This is the basis and thrust of the entire article – and it is patently false. It is unfathomable to even try to determine how you arrived at this conclusion.
China does not outsource pork production to the U.S. and it is not “treating North Carolina like the developing world.”

China as a nation is widely known as self-sufficient in pork and produces half of the pork in the world – for its own consumption.

China imports only about 4 percent of the pork and pork products it consumes.

The European Union is far and away the leader in supplying that additional fraction to China. The E.U. commands about two-thirds of the market share in importing pork to China.

For the U.S., our mainstay export markets (and much more important in terms of volume or value) are Mexico and Japan – not China.

U.S. pork companies supply, at the most, about 1 percent of China’s pork consumption. North Carolina’s share of the U.S. pork exports to China is in the range of one-tenth of that one percent, or about .001%, of what China consumes.

Of products that are exported to China/Hong Kong, North Carolina pork producers, like others across the U.S., supply mostly pig ears, pig feet, pig stomachs and other “variety” meats to China. This trade brings value to the U.S., as most of these products would be processed as rendering otherwise. North Carolina and U.S. producers operate in a competitive export market and any rational assessment would conclude that China is diversified in its sourcing of pork.

The latest data is here: [http://www.ncpork.org/china-gets-pork/](http://www.ncpork.org/china-gets-pork/)

Likewise, the story as published misrepresents the pork industry in North Carolina. It is clear from what was written that you have fundamental and mistaken understandings.

Today’s industry was fostered and developed by North Carolina farmers who worked with soil scientists and experts from university and government agencies as there was a collective recognition for the need for North Carolina agriculture to produce more protein efficiently in ways that would be better for animals and the environment. The body of science at the time this industry developed was concerned with animal health and manure management – and the system was designed accordingly.

The North Carolina pork industry is homegrown, and is and has been characterized by family-owned farms for decades.

There has not been a new hog farm sited in North Carolina in more than two decades.

That is, the farms were in place long before the various mergers, joint ventures, bankruptcies and acquisitions that have resulted in today’s industry makeup.

Smithfield Foods has long had a strong presence in North Carolina, and its headquarters are in Virginia. Since 2013, Smithfield has been a subsidiary of WH Group Ltd, which is a publicly traded company based in Hong Kong. WH Group is a component of the Hang Seng Index just like Lenovo (another company with strong North Carolina employment) and its shareholders are worldwide.

There were nine million hogs and pigs in North Carolina prior to the acquisition by WH Group and there are nine million hogs and pigs in the state now. There have been no changes in exports as a result of the
WH Group acquisition. Rather, it is market forces in a competitive global environment that effect imports and exports in the pork business.

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Rolling Stone: The $7.1 billion purchase (by WH Group) is the largest-ever foreign takeover of its kind.

Comment:
This is false.

A Brazilian company owns Budweiser. ($52 billion) A British company owns Reynolds American. ($49 billion) A British-Dutch concern (Unilever) owns Best Foods, maker of Hellman’s mayonnaise and Skippy peanut butter. ($20.3 billion) We’ll stop there.

LAX REGULATIONS

General Comment Re: Regulations
North Carolina pork producers comply with the most stringent animal agriculture permitting program in the country. These rules and laws regulate, based on science and agronomics, where, when and how farmers use manure as a fertilizer. This sustainable process ensures the manure is used correctly by a green and growing crop.

Every permitted hog farm in North Carolina is inspected by state officials each year to ensure they are complying with the law. These rules and regulations are not “lax.” And, again, no new hog farms have been built in North Carolina in more than two decades.

Rolling Stone: “…it’s also because of loose business and environmental regulations, especially in red states…” in describing production cost differences among China and the U.S.

Comment:
See comments above about North Carolina’s strict environmental regulations.

North Carolina is not a “red” state, as most everyone knows. It is accurately described as purple.

RACIAL ISSUES

Rolling Stone: A 2014 University of North Carolina study found that African-Americans and other minorities are 1.5 times more likely than white people to live near an industrial hog operation.

Comment:
While you accurately reported what the UNC study said, you failed to address or acknowledge the significant problems with the study – which you were aware of during the reporting.

You did not mention what the actual demographics of the populations around hog farms is and you failed to share with your readers information that clearly demonstrates hog farms are not more likely to be located near minority populations. It is the opposite.

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**Rolling Stone: And those victims are disproportionately minorities...**

**Comment:**
First, we disagree that there are “victims” of hog waste. Secondly, we shared factual information regarding the demographics around North Carolina hog farms – using the same 2010 Census data from the Wing/Johnston study. This data clearly shows that minorities are not disproportionately located near hog farms.

Who lives around hog farms?

At any measure of distance, the 2010 Census shows it to be more than 60% white, with other racial categories making up the difference. At distances close to the farms, the populations are less than 25% African-American.

**DESCRIPTION OF IRRIGATION SYSTEMS AND FLOODING**

**Rolling Stone:** “The waste can... flood the whole region, as happened in 1996 and 1998 when hurricanes inundated the area.”

**Comment:**
This is false.

Hog waste did not “flood the whole region” during hurricanes in 1996 and 1998.

There is no evidence of any hog farm flooding during Hurricane Fran in 1996 or Hurricane Bonnie in 1998.

Sections of the region were flooded during historic Hurricane Floyd in 1999, and several lagoons flooded, but the whole region was not flooded with hog waste.

Municipal systems spill massive amounts of raw sewage and other waste into waterways during storm events, not hog farms.

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**Rolling Stone:** ... which is then pumped through an industrial sprayer to fertilizer crops.

**Comment:**
This is false. The farm nearest Rene Miller does not use an “industrial sprayer.” It uses a center-pivot irrigation system, a sophisticated system that irrigates low to the ground in a downward direction.

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**Rolling Stone:** These clouds of aerosolized feces, Miller says, drift over a country road and coat her home.

**Comment:**
Because the farm nearest Rene Miller uses a center-pivot irrigation system, it is impossible for “clouds of aerosolized feces” to “coat her home.” This irrigation system sprays close to the ground in a downward direction.
Rolling Stone: Both times I visited, the sprayers in the field across the road were off.

Response: This gives the impression that the farm uses industrial sprayers capable of producing the “clouds of aerosolized feces” that Miller describes. It does not.

ASTHMA STUDY + HEALTH ISSUES

Rolling Stone: Even people who live much farther away from hog farms can suffer from the fallout. A North Carolina Department of Health and Human Services study found that students in middle schools up to three miles away had higher rates of asthma.”

Comment:
As with your other mentions of purported health studies, this is incorrect and misleading. First, the study was not conducted by the North Carolina Department of Health and Human Services. It was conducted by the same UNC researcher who falsely alleged that the pork industry is part of “environmental racism.” Second, your characterization of the study results is highly misleading. An examination of the data shows that those who lived within two miles of a hog farm actually had lower rates of wheezing (a stand-in for asthma) than those farther away.

There is no evidence that hog farms cause asthma, and suggestions otherwise are not true.

The state of North Carolina reports asthma data broken down into 10 distinct regions of the state. Region 8 includes Bladen, Brunswick, Columbus, Duplin, New Hanover, Onslow, Pender, Robeson and Sampson counties in North Carolina.

These nine counties account for nearly 60% of all the hogs and pigs in North Carolina. The region reports a low prevalence of asthma, as shown in the following table.

<table>
<thead>
<tr>
<th>REGION</th>
<th>% ASTHMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region 9 &amp; 10</td>
<td>10.7</td>
</tr>
<tr>
<td>Region 1 &amp; 2</td>
<td>9.1</td>
</tr>
<tr>
<td>Region 7</td>
<td>8.6</td>
</tr>
<tr>
<td>Region 3</td>
<td>8.3</td>
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<tr>
<td>Region 5</td>
<td>8.3</td>
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<tr>
<td><strong>Region 8</strong></td>
<td><strong>7.3</strong></td>
</tr>
<tr>
<td>Region 6</td>
<td>7.2</td>
</tr>
<tr>
<td>Region 4</td>
<td>7</td>
</tr>
</tbody>
</table>
The state- and federally-funded North Carolina Area Health Education Centers (NC AHEC) reports asthma prevalence by its nine statewide regions.

The majority of hog-producing counties are NC AHEC regions known as Southern Regional and Southeast. The state reports asthma prevalence in those regions, as shown in the following table.

<table>
<thead>
<tr>
<th>REGION</th>
<th>% ASTHMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area L &amp; Eastern</td>
<td>10.1</td>
</tr>
<tr>
<td>Mountain AHEC</td>
<td>9.5</td>
</tr>
<tr>
<td>Wake</td>
<td>8.7</td>
</tr>
<tr>
<td>Greensboro</td>
<td>7.9</td>
</tr>
<tr>
<td>Northwest</td>
<td>7.6</td>
</tr>
<tr>
<td>Charlotte</td>
<td>7.5</td>
</tr>
<tr>
<td>Southeast</td>
<td>7.5</td>
</tr>
<tr>
<td>Southern Regional</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Rolling Stone: “To prevent overflowing, farms spray it out as fertilizer on crops, which can create a mist that drifts onto nearby homes and into their inhabitants' lungs, causing all manner of respiratory and health problems.”

Comment:
This is false.

North Carolina farmers apply manure as a fertilizer to a crop. There is no evidence that any farm causes respiratory or health problems. Strict regulations in North Carolina prohibit application of manure in wind conditions that would cause any mist to reach surface waters or wetlands or cross property lines or field boundaries.

Rolling Stone: The industry describes hog waste as “organic fertilizer,” though in reality it is potentially lethal.

Comment:
“Potentially lethal” is, of course, a wording choice that involves subterfuge. Our manure is used to grow crops – the opposite of lethal. Many lagoons are home to healthy geese, turtles and other wildlife.

ADDITIONAL CONCERNS

Rolling Stone: [Regarding the death of Rene Miller's nephew] “I think it killed him.” She means the hog waste.

Comment:
The article says that the nephew died of cancer. Later in the article, you acknowledge that “hog waste has not been proven to correlate with cancer...” Yet, you clearly set it up to leave the reader with the impression that hog waste was responsible for his death. This is irresponsible.
Rolling Stone: The overall economic benefits of hog farming have actually been relatively small.

Comment:
You provide no support for this, and it is false. As you reported elsewhere, the pork industry is a $2.9 billion industry responsible for 46,000 jobs.

With regard to Duplin County specifically, it is worth noting that in the past decade, Duplin County has outpaced the rate of growth statewide in both median household income and median hourly wages by 7 percent.

The writer said his data showed that the "typical county in NC has decreased by 27 percent economically. Your counties have held steady." He added that there was a "strong argument to be made that large agricultural companies have been there to step in and that it is essential to the health of the state."

This is what the writer said during an interview with industry representatives. None of that was reported, and instead just the opposite was reported.

Agriculture is the No. 1 industry in North Carolina. (And North Carolina agriculture is 7th in the nation for farm income.)
Hogs and pigs account for 20 percent of North Carolina’s farm cash receipts. Of the top six counties in North Carolina for farm income, four of them are the top hog producing counties.

Bankers, grocery store owners, tax collectors, non-profit leaders, car dealers and other such business, government and nonprofit leaders do not view the benefits of the industry as "relatively small."

Rolling Stone: Such hazards have led to 26 lawsuits with nearly 500 complainants, including Miller, against a subsidiary of Smithfield, arguing that the company is failing to take the necessary steps to protect them.

Comment:
It is incorrect to say that health “hazards” have led to the filing of these lawsuits. These are nuisance cases that revolve around nuisance issues. These lawsuits are not based on health claims nor on any allegations of negligence.

ADDITIONAL FACTUAL ERRORS

Rolling Stone: America’s top hog-producing county is Duplin County, North Carolina, where future hams outnumber humans about 30 to 1.

Comment:
This is false.

The top hog-producing county in the nation is Sampson County, North Carolina.

In addition, the ratio of "future hams" to people is miscalculated.
Rolling Stone: When the Democratic governor vetoed it, the Republican-controlled state Legislature overruled him and passed a slightly watered-down version of the bill.

Comment:
This is factually incorrect. The legislature did not pass “a slightly watered-down version of the bill” after it was vetoed.

There was a bill passed by both the NC House and NC Senate, and it passed the chambers as a result of bipartisan support. When it was vetoed, legislators overrode the veto and the bill became law.

Rolling Stone: “A mature hog excretes about 14 pounds of manure a day, which means Duplin’s hogs generate about 15,700 tons of waste daily – twice as much poop as the human population of the city of New York.” AND “the state’s top five hog-producing counties alone produce 15.5 million tons of manure annually.”

Comment:
This is false and misunderstands the truth of the matter.

First, Duplin County’s stock of hogs and pigs are not all mature hogs.

Second, A mature hog does not excrete 14 pounds of manure per day. One authority on this issue is the American Society of Agricultural Engineers (ASAE), which produces manure management system standards. The amount of manure depends on the size of the pig or hog. (ASAE estimates that pigs and hogs produce, on average, about 2 pounds of manure per day as a feeder and as much as 10 pounds per day as a mature hog – and this calculates to about 8 pounds per day on average over the lifespan.)

Third, your calculations are off. Even if you use the 14 pound figure, the numbers don’t add up based on the number of hogs and pigs in Duplin County.

In addition, comparing human and livestock manure and wastes is egregiously misleading. The diet of a hog is steady and well known – it is mostly water, corn and soybeans.

Human wastes are vastly different. Waste from humans includes food wastes, paper wastes, grease and oils, detergents and other chemicals used by humans in their homes and at businesses.

Rolling Stone: The source is a few hundred feet away: six airplane-hangar-like metal barns, warehousing around 4,300 hogs, backed by three acres of liquid pig waste in an open-air lagoon.

Comment:
This information is all incorrect. There are six wood-vinyl-concrete barns that house 5,280 hogs. There is a 2.4-acre lagoon.
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Rolling Stone: [Wendell Murphy’s] company, Murphy-Brown ... convinced farmers to borrow huge sums to build facilities to raise hogs that it would then slaughter.

Comment:
This is false.

Farmers actively added swine facilities on their own as North Carolina agriculture encouraged diversification of on-farm incomes. Wendell Murphy was not ever in the business of processing hogs. The company Murphy-Brown was never owned by Wendell Murphy.

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We believe that a fair, open reporting process would have avoided much of this embarrassment for the magazine. We trust you will take appropriate steps to remedy what has occurred.

Please direct your response to Andy Curliss at acurliss@ncpork.org.