

CHAIN *REACTION II*



How Top Restaurants Rate on Reducing
Use of Antibiotics in Their Meat Supply

Table of Contents

Acknowledgements 3

Executive Summary 4

Antibiotic Resistance and Antibiotics Misuse in Livestock 6

Key Findings 7

Chain Reaction II Scorecard and Discussion 10

Time for Government Action 13

Market Trends Point the Way 14

Use of Other Growth-Promoting Agents 17

Conclusion 20

Recommendations 20

Appendix 1: Survey Methodology and Questions..... 21

Appendix 2: Scoring Criteria..... 25

Appendix 3: Company Profiles..... 28

Endnotes..... 41



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The opinions expressed in this report do not necessarily reflect those of our organizations' supporters or reviewers.

Executive Summary

America's biggest restaurant chains feed millions of people billions of pounds of beef, chicken, turkey and pork every year. The vast majority of this meat is produced in industrial-scale facilities where thousands and even tens of thousands of animals at a time are routinely fed antibiotics to help them survive and make them grow faster in unsanitary, crowded and stressful conditions.ⁱ This misuse of antibiotics contributes to antibiotic resistance—the ability of bacteria to withstand exposure to an antibiotic. Antibiotic resistance makes treatment of bacterial infections harder, increases how long people are sick, and makes it more likely that patients will die.² Curbing the misuse of antibiotics in the meat industry is a public health imperative.

Increasingly, consumers are insisting on more sustainably-produced meat, including meat produced without the routine use of antibiotics. The 2015 Chain Reaction scorecard ranked America's 25 largest fast food and fast casual restaurant chains on their antibiotics use policiesⁱ and received widespread coverage in dozens of mainstream news outlets—an indication of significant public concern about this issue. This second annual scorecard and report, Chain Reaction II, highlights the problem of routine antibiotics use in the meat and poultry operations that supply the nation's top restaurant chains. It also identifies restaurant companies taking a leadership role in their industry by setting good antibiotics use policies, purchasing meat and poultry raised without the routine use of antibiotics,ⁱⁱ and increasing transparency about their practices. Restaurants are major meat buyers and they can create big positive ripple effects on meat production practices across the country by changing their sourcing policies.

This year, twice the number of surveyed companies received a passing grade compared to last year. This largely reflects partial commitments on the part of those moving to transition their chicken supplies away from routine use of antibiotics.² Most of these companies are now clustered in a peer group receiving grades in the “B” or “C” range (Subway, Chick-fil-A, McDonald's, Wendy's, Taco Bell). McDonald's earns an improved grade of “C+” for completing its transition of its chicken supply,



reporting that an impressive 100 percent of the chicken served at its roughly 14,000 U.S. restaurants is now raised without antibiotics important in human medicine.^{3, iii} However, the company made no commitments for its beef and pork. Chick-fil-A, one of the first companies to announce a good antibiotics use policy in 2014 for its chicken (essentially everything it serves), stays put with a “B” grade, reporting that it has converted “more than 23 percent” of its chicken supply to chicken raised entirely without antibiotics to date, indicating only marginal progress over last year.⁴

Very little progress has been made on pork and beef. There are no new entrants into the small peer group of restaurant chains receiving an “A” grade, reserved for companies that have policies limiting the routine use of antibiotics across all the meat and poultry they serve and publicly affirming that the majority of their meat and poultry is sourced accordingly. Panera and Chipotle remain the only two receiving an “A”. However, Subway says it wants to join that group. Subway is the only restaurant chain to adopt a new antibiotics policy that applies to all types of meat it serves, leaping from an “F” last year to a “B” grade in this year's scorecard.

i The scorecard gives full credit for a publicly available company policy that prohibits the use of all antibiotics or antibiotics in classes used in human medicine for growth promotion or disease prevention. Treatment of sick animals and use to control a disease outbreak are acceptable.

ii Here and throughout, “meat raised without the routine use of antibiotics” refers both to all antibiotics and/or all antibiotics important in human medicine.

iii “Antibiotics important to human medicine” or “medically-important antibiotics” are antibiotics that are the same as, or similar to, classes of drugs used in human medicine. For example, the livestock antibiotic, tylosin, is a member of the macrolide class of antibiotics.

Two other companies, Pizza Hut and Papa John's, receive a "D" grade for making token efforts—i.e., setting good antibiotics use policies on chicken, but applying them only to a small fraction of their chicken purchases. Unfortunately, 16 of the top 25 fast food chains, including such very large ones as KFC and Burger King, have taken no action to reduce use of antibiotics in their supply chains. These companies received a grade of "F".

No doubt, the public-facing campaigns aimed at McDonald's, Subway, Yum! Brands (parent company to KFC, Taco Bell, and Pizza Hut), Darden (owner of Olive Garden), and others, initiated by the organizations participating in this report and our allies, coupled with action by the investor community, are making a difference (see sections on Corporate Campaigns and Investor Actions on page 14). Companies are on notice that their customers and shareholders will hold them accountable for drug use practices in their meat and poultry supply chains. Nonetheless, much swifter and more widespread action is needed from top restaurant chains and leading meat producers to get routine antibiotics use out of our meat supply.

The goal of the annual Chain Reaction survey and scorecard is to help consumers make educated choices about the meat they eat, and encourage the largest chains in the fast food and fast casual restaurant industry to improve their sourcing policies. By highlighting industry leaders and laggards, we hope to encourage more top restaurant chains to publicly adopt policies that prohibit the routine use of antibiotics in their meat and poultry supply chains. We also seek to promote greater overall transparency about restaurant purchasing policies, including use of antibiotics and other drugs by major meat and poultry producers supported by the restaurant industry.

However, the market alone will not stem the rising tide of antibiotic resistance. Ensuring consumers have more choice when it comes to purchasing meat and poultry raised without routine antibiotics use will not address the broader risk of resistance from continued misuse of antibiotics in much of the meat industry. For that, we need the government to set rules across the industry that prohibit the routine use of antibiotics in food animal production for growth promotion and disease prevention, and to set baseline standards that limit acceptable use to treatment of sick animals and to control identified disease outbreaks. To date, government response to this major public health threat has been woefully inadequate.

Chain Reaction II Scorecard		
A	 	
B	 	
C+		
C		
C-		
D+		
D		
F	<div>    </div> <div>    </div> <div>    </div> <div>    </div> <div>    </div> <div>  </div>	

Antibiotic Resistance and the Role of Antibiotics Misuse in Livestock

According to the World Health Organization (WHO), the Centers for Disease Control and Prevention (CDC) and other public health agencies, antibiotic resistance is a leading global public health threat.⁶ Already, at least 2 million people in the U.S. contract antibiotic-resistant infections and at least 23,000 die as a result of the infections each year.⁷

Misuse of antibiotics^{iv}, both in human medicine and the livestock industry, is driving antibiotic resistance. A recent study by the CDC and Pew Charitable Trust indicates that nearly one-third of antibiotics prescriptions are not needed.⁸ But 70 percent of antibiotics important for human medicine sold in the U.S. are used in livestock and poultry production, not for human medical use. The volume of medically-important antibiotics sold for use in livestock continues to rise: it has gone up 23 percent in just the last five years.⁹

These drugs are often given to animals that are not sick to accelerate weight gain and prevent diseases stemming from poor diets and crowded, stressful and dirty conditions.¹⁰ Approximately 96 percent of the antibiotics sold for animal use are added to feed and water, the preferred way to deliver antibiotics to large flocks or herds of animals at once. This practice is a key contributor to the rise of antibiotic-resistant bacteria – sometimes called “superbugs” – which can escape the farm and spread into communities through air¹¹, water¹², soil¹³, meat, and even workers.¹⁴ Resistant superbugs can make us sick, or pass on resistance to other bacteria which can make us sick.¹⁵

The CDC, the WHO and other leading scientific bodies agree that the misuse of antibiotics in food animals contributes to antibiotic resistance.¹⁶ Last December, the American Academy of Pediatrics published a report that concludes antibiotics should be used “only to treat and control infectious diseases in livestock and not to promote growth or to prevent disease routinely.”¹⁷ Similarly, during World Antibiotic Awareness Week in November 2015, the World Health Organization recommended that we need to “[e]nsure that antibiotics given to animals . . . are **only used to control or treat** infectious diseases” (emphasis theirs).¹⁸

iv Antibiotics misuse refers to the routine use of antibiotics for growth promotion or disease prevention rather than when animals are sick.

We now face the troubling specter of a kind of “super-superbug”, resistant to every life-saving antibiotic modern medicine has available.¹⁹ In May 2016, a gene transmissible between bacteria, which allows disease-causing bacteria to withstand colistin (an antibiotic used as a last-resort when all others fail), was found in the U.S. for the first time. The problem gene was found both in *E. coli* from a patient in Pennsylvania and in a sample taken from a pig killed at a slaughterhouse. The same colistin resistance gene was found in a second pig sample, as reported in June 2016. That same month, the gene was discovered in a second human patient in the U.S.²⁰ The emergence and spread of a colistin resistance gene underscores why curbing antibiotic use in livestock production is critical to keeping our life-saving antibiotics working.

“Antibiotic resistance is perhaps the single most important infectious disease threat of our time.”

—Beth Bell, MD, MPH, Director, National Center for Emerging and Zoonotic Infectious Diseases at the Centers for Disease Control⁵

CARBADOX

In addition to resistance, some antibiotics can cause health problems when drug residues are left in meat. Normally this issue is controlled by requiring enough time between when an animal is given antibiotics and when the meat or dairy products from that animal are processed. In April 2016, the Food and Drug Administration (FDA) announced new evidence that using the antibiotic carbadox in pigs could lead to cancer-causing residues in pork even if the producer waited the required time before slaughter.²¹ FDA began the process to ban the use of carbadox but the drug’s maker is challenging the prohibition. It can take from 5 to 20 years for FDA to prohibit the use of a drug when challenged by a drug maker, and in the meantime, the drug can continue to be sold. We included a question about carbadox use in this year’s survey to see if top restaurant chains allow it to be used. Panera is the only chain surveyed that has a policy prohibiting the use of carbadox.

Key Findings

Chain Reaction II again takes stock of restaurant industry progress on eliminating the routine use of antibiotics in meat by rating the top 25 fast food and fast casual restaurant chains in the U.S.²² on their meat and poultry antibiotics policies. To evaluate restaurant policies and practices, the authors directly surveyed companies and reviewed their public statements.²³ Based on the information collected, we created an industry scorecard that assesses company policies on antibiotics use, implementation of these policies as reflected in current meat and poultry purchasing, and transparency about antibiotics use in their meat and poultry supply chains. Appendix 1 contains our survey methodology and questions. Our updated scorecard criteria are fully described in Appendix 2.

Over the last year, twice the number of companies adopted good policies on antibiotics use in one or more categories of their meat supply.

- » As of September 2016, nine out of 25 companies surveyed (up from five in 2015) had adopted publicly-available policies that phase out routine antibiotics use in some or all of their meat and poultry supply: McDonald's, Subway, Chick-fil-A, Wendy's, Taco Bell, Chipotle, Panera, Papa John's, and Pizza Hut. These moves by top meat buyers have created significant momentum, which in turn is driving change in the meat industry, as evidenced by major meat and poultry producers Tyson, Perdue and Cargill all announcing reductions in antibiotics use.
- » These policies continue to range from strict prohibitions on any antibiotics use (Chick-fil-A for chicken but not pork, Subway for all meat and poultry), to policies that prohibit the use of antibiotics important in human medicine in chicken (McDonald's, Taco Bell, Papa John's, Pizza Hut).²⁴ The policies are at various stages of implementation, with some yet to move beyond commitments. All of these companies received at least a "D" grade.



Some companies began to implement their commitments and publicly report on their progress, proving that change is possible at scale. However, most progress remains limited to chicken.

- » McDonald's, Subway and Wendy's have made important headway in implementing their chicken policies and reporting on their progress to the public. McDonald's reports that 100 percent of the chicken served at its roughly 14,000 U.S. restaurants is now raised without antibiotics important in human medicine.²⁵
- » Subway is the only restaurant chain to adopt a new antibiotics policy that applies to all types of meat it serves, similar to that of previous industry leaders Panera and Chipotle. As of March 2016, Subway began to implement its commitment to serving chicken raised entirely without antibiotics, with turkey soon to follow.²⁶ Subway reports that roughly 67 percent of its chicken is now raised without antibiotics.
- » Wendy's reports that 50 percent of its chicken is raised without antibiotics important in human medicine, and that its entire chicken supply will comply with its policy by the end of 2017.²⁷
- » Chick-fil-A reports that as of the second quarter of 2016, it had converted "more than 23 percent" of its chicken supply to chicken raised entirely without antibiotics.²⁸ This indicates marginal progress over last year, when the company reported that as of March 2015, 20 percent of its chicken met its antibiotics use standard.

- » Taco Bell announced in April 2016 that it would source only chicken raised without antibiotics important to human medicine by early 2017.
- » Papa John's commitment applies to chicken used in pizza toppings and poppers, but fails to cover the chicken it purchases for its popular wings offerings. Pizza Hut's May 2016 announcement applies only to chicken used as a pizza topping (see "What the Cluck?" on page 12).
- » As a whole, the chain restaurant industry made little progress in setting good antibiotics use policies on turkey, pork and beef or transitioning those supply chains away from reliance on routine antibiotics use.
- » Only Chipotle, Panera, and Subway received top points for having antibiotics use policies that apply to all the types of meat they serve with time-bound commitments for implementation.
- » McDonald's, Wendy's, Taco Bell, Papa John's and Pizza Hut all received a top score for having "good" policy content, but otherwise received fewer points in the policy category because their policies only apply to chicken and still allow routine antibiotics use for "disease prevention" in the production of pork and beef served in their restaurants.

The small number of restaurant chains that serve a majority of their meat from animals raised without routine antibiotics use remains unchanged. But Subway says it wants to join that group.

- » Just as we reported last year, Panera and Chipotle remain the only two restaurant chains that report that they currently offer an array of meat options produced without the routine use of antibiotics, including pork and beef. Panera reports that as of the fall of 2016, 91 percent of all the meat and poultry it serves is raised without antibiotics. The remaining 9 percent is chicken, turkey, pork and beef purchased as part of secondary products, such as soups, soufflés, and salami.²⁹
- » Subway—the third-largest chain by revenue and the first by number of restaurants³⁰—has a ten-year timeline (through 2025) to complete its conversion to pork and beef raised without antibiotics. We will be watching Subway's implementation closely in the years to come to ensure that policy converts to practice.

Overall, the industry shows signs of greater transparency, including a higher survey response rate and a commitment from companies to keep consumers informed through public progress updates. All companies receiving grades of at least "C" are employing at least some third-party auditing of suppliers to ensure compliance with company policies.^v



- » More than double the number of companies (16 out of 25) responded to the Chain Reaction II survey this year, indicating increased interest and awareness of the issue.
- » Top transparency points went to Panera, McDonald's, Subway, Wendy's, Chick-fil-A, Taco Bell and Pizza Hut. All seven fully responded to our survey, work with third-party auditors to evaluate supply chain practices covered by their policies (chicken, in all cases), and have audit standards that are publicly available (through the USDA's Process Verified Program website, in most cases).

^v As the market for meat raised without routine use of antibiotics grows, third-party verification of compliance will be a key element of company policies. The authors of this report support verification programs that are administered by independent third-party certifiers that regularly audit antibiotics use practices against clear, publicly searchable antibiotics use standards, feature unscheduled, on-site audits of supplying farms, and require timely correction of any established policy violations. Auditors should be permitted access to records documenting compliance and may conduct spot checks of the premises and contents, including testing if appropriate. In today's marketplace, this includes the USDA Process-Verified program, USDA Certified Organic, and multiple independent certification regimes, such as the Global Animal Partnership and Animal Welfare Approved.



- » Third-party audits are a critical step to ensure confidence in the veracity of company reports. Each of these companies also publishes a progress report of some sort online or plans to do so once its implementation is underway, a key step in keeping consumers and investors informed about company efforts on this issue.
- » Chipotle receives only partial credit on auditing, as the company still relies on a combination of internal and third-party audits.
- » Of surveyed companies with passing grades, Papa John's stands out for providing no information on supply chain auditing to evaluate compliance with its antibiotics use policy.

The majority of top U.S. restaurant chains still have no publicly-available policy prohibiting the routine use of antibiotics in their meat and poultry supply chains.

- » At press time, more than half of the U.S.'s top 25 restaurant chains continue to have no disclosed policy on antibiotics use in their meat and poultry, or have policies that allow for the continued, routine use of antibiotics in the production of the meat they serve. These chains are: KFC, Olive Garden, Burger King, Dunkin' Donuts, Chili's, Sonic, Denny's, Domino's, Starbucks, Applebee's, Jack in the Box, Arby's,

Dairy Queen, IHOP, Outback Steakhouse, Buffalo Wild Wings, and Little Caesars. These laggards receive an "F" grade.

Many restaurants still keep their customers in the dark about their meat sourcing policies.

- » A handful of U.S. restaurant chains continued to be unresponsive to our requests for information. This list includes Burger King, Applebee's, Domino's Pizza, Chili's, Little Caesars, Dairy Queen, Arby's, and IHOP. Buffalo Wild Wings was not amongst the top 25 U.S. restaurant chains in 2015, so this is the first year we reached out to the company. They did not respond to the survey.
- » On their websites, 11 of 25 restaurants surveyed fail to provide customers with basic information about their policies regarding the use of antibiotics and other drugs in the meat they purchase.

Detailed Scorecard of Antibiotics Policies and Sourcing Practices*

Company	Good Policy Across All Meats (7, 21, or 28*)	Timebound Commitment (3, 9 or 12*)	Availability of Meat Produced w/o Routine Antibiotics (8, 24, or 32) + 1*	Transparency (7, 21 or 28)*	Total Points	Total Possible Points	%-age Total	Grade
	26	12	32	28	98	100	98%	A
	21	9	24	17.6	71.6	75	96%	A
	28	12	6	28	74	100	74%	B
	7	3	1	7	18	25	72%	B
	7	3	9	21	40	75	53%	C+
	7	3	4	21	35	75	47%	C
	7	3	0	21	31	75	41%	C-
	3.5	1.5	0	21	26	75	35%	D+
	3.5	1.5	0	14.3	19.3	75	26%	D
	0	0	0	8	8	100	8%	F
	0	0	0	6	6	75	8%	F
	0	0	0	8	8	100	8%	F
	0	0	0	8	8	100	8%	F
	0	0	0	2	2	25	8%	F
	3.5	0	0	0	3.5	100	4%	F
	0	0	0	6	6	75	4%	F
	0	0	0	3	3	75	4%	F
	0	0	0	4	4	100	4%	F
      	0	100	0	F				

*A comprehensive description of scoring methodology is provided in Appendix 2.



Discussion

In the second year of the Chain Reaction survey and scorecard, our priority remains to encourage companies to adopt good policies that prohibit routine antibiotics use for growth promotion or disease prevention across all the meats they serve, even if those policies are not yet fully implemented. Our scoring reflects this priority, with 40 points out of 100 offered for good policies that include time-bound commitments.

However, as more companies adopt such policies, the priority will shift to encouraging implementation. Credible implementation programs should make regular progress towards following through on time-bound commitments, include independent third-party verification of compliance with policies, and keep consumers regularly apprised of progress. In the future, we anticipate offering a greater share of

points for implementation—i.e. to companies making good on their commitments and serving meat and poultry that meets their antibiotics use standards.

Nonetheless, while consumers may support a company that announces plans to purchase meat and poultry raised without routine antibiotics use in the future, we understand that most are likelier to be interested in what they will find on their plates today. You can be confident that when eating at Panera or Chipotle, you will find a variety of meat and poultry—chicken, turkey, pork, and beef—raised without the routine use of antibiotics. When eating chicken at any one of McDonald's locations nationwide, you can now be confident that 100 percent of the chicken you order meets this standard! At Subway, you have about a two-in-three chance of being served chicken raised without routine antibiotics use; at Wendy's, that chance is about one-in-two; and at Chick-fil-A, about one-in-four.



The Chain Reaction scorecard is an important tool to help consumers and media distinguish between companies that are providing real leadership in the fight to protect these precious medicines, and those that are simply greenwashing.

—Chain Reaction II Authors

What the Cluck?

The authors of this report are excited to see more companies make commitments to phase out routine antibiotics use in their meat and poultry supply chains. However, our enthusiasm wanes when company announcements veer more toward greenwashing than meaningful commitment to change.

Dunkin' Donuts is the only company in our survey to have its score downgraded from last year. The donut chain earned a respectable "C" last year on the 2015 Chain Reaction scorecard for its strongly-worded antibiotics policy prohibiting the routine use of medically-important antibiotics for all meat suppliers, including for disease prevention. While we were skeptical about the extent to which Dunkin' Donuts was requiring its suppliers to meet this policy, we hoped it would soon create targets for implementation. Unfortunately, just three months after the release of the 2015 Scorecard, changes to the company's policy appeared on their website. The updated policy language was confusing and regressive, stating that, "Suppliers should only administer antibiotics and antimicrobials to animals for the control and treatment of disease."³¹ The use of the word "should" indicates that this is not a requirement and that the policy now clearly allows for the continued use of antibiotics for disease prevention—exactly what we are asking companies to curb. With that change, Dunkin' Donuts has joined the ranks of 16 other top restaurant chains receiving an "F" grade in Chain Reaction II.

We also have concerns with recent announcements from Pizza Hut and Papa John's, two of the largest pizza chains in the U.S. Both made commitments in the past year to phase out medically-important antibiotics in *some* of the chicken on their menus, but *SOME* is the operative word. Papa John's commitment applies to chicken used in pizza toppings and poppers, but fails to cover the chicken it purchases for its popular wings offerings. The company received some credit in this year's scorecard to acknowledge that it set a good policy for this portion of its chicken supply, but we were unable to grant implementation points because it did not respond to our request for information on what share of its total chicken purchases this represents. Pizza Hut's May 2016 announcement applies only to chicken used as a pizza topping. Yum! Brands, the parent company of Pizza Hut, explained that after complete implementation in 2017, this commitment will encompass just 10 percent of Pizza Hut's total chicken purchases.

These types of marginal or shifting commitments are confusing for consumers, who likely assume they apply to *all* the chicken or meat served at a given restaurant chain and that a company policy will actually be put into practice. In addition, such company announcements often garner significant positive media coverage despite their minor impact on supply chain practices. The nuances of company commitments are frequently lost in the broader story of market-driven changes in livestock industry antibiotics use practices.



Time for Government Action

The federal government has failed to take adequate action on antibiotics misuse in animal agriculture

Despite the clear threat to public health, the U.S. government has failed to take the necessary actions to combat antibiotic misuse in the livestock industry. Congress has failed to enact legislation to phase out the meat industry's routine use of antibiotics a priority; it has been stalled for years.³² Meanwhile, action on the part of the executive branch has been woefully inadequate.³³

In 2015, the White House released a National Action Plan for Combatting Antibiotic-Resistant Bacteria. On the human side of the equation, the Administration set a goal of reducing inappropriate antibiotic use in outpatient settings by half and in inpatient settings by 20 percent. It has set numeric goals to reduce the incidence of various resistant infections, and to improve data collection in human medicine settings.³⁴

But where the bulk of U.S. antibiotic sales occur—on the animal side—the Administration has set no national targets for reducing antibiotic use. Instead, the Administration relies on existing efforts of the Food and Drug Administration (FDA) which only seek to restrict the use of antibiotics on animals for the purpose of speeding up growth, but continues to allow antibiotics use under another guise—to prevent diseases that *may* follow from poor conditions and diets—so long as a veterinarian approves them.³⁵ Since antibiotics use can be virtually identical for disease prevention as it is for growth promotion, FDA's plan enshrines a giant loophole into its

guidelines. Further, while the federal government collects information from drug companies on their *sales* of antibiotics for use in animals, it does not collect any data on actual on-farm antibiotic *use* of antibiotics in livestock, nor has it put forward concrete proposals to collect such data. This year the FDA finally directed drug companies to estimate antibiotics sales on a species by species basis, a positive but modest step forward.³⁶

California provides a bright spot—and a roadmap for national action

Last October, California passed SB27, a law prohibiting the regular use of antibiotics on animals that are not sick, whether for speeding up growth or to prevent disease.³⁷ California is the first state in the nation to take on the critical issue of antibiotic misuse in livestock and set clear requirements beyond the FDA's weak program.

In addition to prohibiting antibiotic use solely to speed up animal growth, SB27 also prohibits the use of antibiotics in a regular pattern, which encompasses routine disease prevention. (Antibiotics remain available for use when animals are sick). As a result, it goes beyond current federal policy. Even for irregular prophylactic use, the law requires the presence of an elevated risk before medically-important antibiotics can be used. These restrictions are combined with veterinary oversight.

SB27 also requires the California Department of Food and Agriculture (CDFA) to develop a monitoring program, to gather information on livestock antibiotic sales and usage, and clarifies that CDFA has the authority to collect veterinary feed directives (prescriptions for feed antibiotics) to that end. Finally, it directs the agency to develop antibiotic stewardship guidelines and best management practices for the use of antibiotics. California's law signifies real progress and other states, as well as the federal government, should also act to curtail antibiotic misuse.

“If policymakers are waiting for the last minute to act on antibiotic resistance, that time is now.”

—Dr. Lance Price, Antibiotic Resistance Action Center, George Washington University
Milken School of Public Health

Market Trends Point the Way

Consumer demand for chicken, turkey, pork, and beef raised without the routine use of antibiotics is growing fast. Motivated by personal health, environmental impacts, animal welfare, taste, and quality concerns, today's consumers are savvy and increasingly seeking alternatives to conventional meat products, which are typically produced with the regular, ongoing use of antibiotics.

The chicken industry is leading the way

Even the largest chicken producers are reducing their reliance on antibiotics. The Natural Resources Defense Council estimates that approximately 40 percent of the U.S. chicken industry has eliminated or pledged to eliminate routine use of medically-important antibiotics.³⁸

- » In 2014, Perdue Farms, the fourth-largest chicken producer in the United States,³⁹ announced that it is already raising 95 percent of its birds without antibiotics important to human medicine, with the remaining antibiotics use limited to treating chickens that are sick.⁴⁰ As of February 2016, the company reports that two-thirds of its chicken is raised without any antibiotics.⁴¹
- » In April 2015, Tyson Foods, the largest meat company in the U.S. and by far the country's largest processor of chicken, announced it will strive to no longer use human antibiotics to raise chickens in its U.S. operations by September 2017.⁴²
- » In June 2015, Foster Farms, the largest chicken producer on the West Coast, announced that it had made significant progress and set a goal to completely eliminate antibiotics that are important to human medicine.⁴³
- » Pilgrim's Pride, the second-largest chicken producer in the country, also reported that it will raise 25 percent of its birds without antibiotics by the end of 2018.⁴⁴

Changes in other meat supply chains are gaining traction, but much more progress is needed

- » In a February 2016 progress update, Perdue confirmed that more than half of its turkeys are now raised without antibiotics.⁴⁵
- » In February 2016, Tyson announced it was launching a new pork line under its Open Prairie Natural Pork brand that is raised without any

“Our decision to eliminate 20 percent of the antibiotics used in our beef cattle, which are also used for human health, took into consideration customer and consumer desires to help ensure the long-term medical effectiveness of antibiotics for both people and animals.”

—John Keating, President of Cargill's Wichita-based beef business

antibiotics.⁴⁶ This move will make Tyson one of the largest suppliers of pork raised without antibiotics in the country. While the company expects the new pork line to make up less than five percent of its pork business, a news report indicates that this translates to more than one million pigs each year.⁴⁷

- » In March 2016, Cargill announced it was reducing its use of antibiotics important for human medicine in its beef production by 20 percent, a move that impacts approximately 1.2 million cattle.⁴⁸ In August 2016, Cargill also announced it was launching a new line of turkey, Honest Turkey, raised without any antibiotics, and that it was ending prevention use of the medically-important antibiotic, gentamicin, in its Honeysuckle White® and Shady Brook Farms® brands.⁴⁹

Americans are flexing their consumer muscle and holding large meat buyers accountable

A series of consumer-driven corporate campaigns have hit the marketplace since the 2015 Chain Reaction report was published—and they're having an impact.

In the summer of 2015, a coalition of organizations launched a public campaign encouraging Subway to take action on the issue of antibiotic resistance. In October 2015, days prior to a planned delivery of nearly 300,000 signed petitions from concerned activists to Subway leadership,⁵⁰ the chain announced its commitment to eliminate all antibiotic use in its supply chain over the next decade.

In January 2016, more than 80 organizations sent a letter⁵¹ to the CEO of Yum! Brands—parent company to KFC, Taco Bell, and Pizza Hut—calling on the company to end the routine use of medically-important antibiotics in its chicken supply and make a strong, definitive public commitment to end routine antibiotics use across its meat chains. Within the next six months, two of Yum!’s companies—Taco Bell and Pizza Hut—changed their antibiotics policies for the chicken served in their restaurants (though Pizza Hut’s May 2016 announcement is limited only to chicken used as a pizza topping). At press time for this report, KFC remains an outlier within Yum! Brands. NRDC, U.S. PIRG and their allies have an active campaign aimed at encouraging KFC to set a strong antibiotics use policy for its vast chicken supply. In August 2016, that campaign delivered a petition signed by over 350,000 consumers calling on the company to end the routine use of antibiotics important to human medicine in its chicken supply.⁵²

In February 2016, a number of groups including Friends of the Earth, PIRG, and Center for Food Safety launched a campaign calling on In-N-Out Burger, California’s iconic hamburger chain, to stop selling beef produced with the routine use of antibiotics and other drugs and to offer a sustainable, grass-fed burger option. Shortly after the campaign sent a letter signed by 50 groups to the company⁵³, In-N-Out Burger announced plans to eliminate the routine use of antibiotics in its beef supply.⁵⁴ However, since that announcement, little

progress has been made to formalize an antibiotics policy, establish a timeframe for ending routine uses, or identify third-party auditors. While In-N-Out Burger continues to respond to inquiries to provide occasional updates, the campaign will continue to press the company to provide a clear timeframe and concrete steps for action.

In addition, in March 2016 a coalition of environmental, social-justice and animal-welfare organizations delivered 130,000 petitions to Darden, owner of Olive Garden, asking the nation’s largest casual restaurant company to pay fair wages and source food more responsibly. A key demand is that the company commit to sourcing 100 percent of its meat and poultry from suppliers who do not administer antibiotics unless animals are sick.⁵⁵

Consumer demands are now global

Antibiotic resistance is global in scope and can’t just be solved in one country. In November 2015, Consumers International, which has 220 members in 110 countries, launched a campaign targeted at KFC, McDonald’s and Subway, all of which have vast operations around the world.⁵⁶ The group was particularly concerned that commitments and progress made by Subway and McDonald’s in the U.S. and Canada were not being matched by similar changes elsewhere in the world. Organizations from New Zealand to Russia, and South Korea to South Africa have been contacting the restaurant giants.



Investors are also upping the pressure

As corporate campaigns targeting national and regional restaurants have intensified, so too has pressure from the investor community. In April 2016, a coalition of investors managing \$1.4 trillion in assets called on ten of the largest restaurant companies to end the routine use of antibiotics important to human medicine in their global meat and poultry supply chains. Citing reputational and financial risk to the companies, as well as human health risks from antibiotics misuse, the investor group sent a letter highlighting their concerns to many chains included in our survey: McDonald’s, The Wendy’s Company, Domino’s Pizza Group, Darden (owner of Olive Garden), Brinker International Restaurants (owner of Chili’s Grill and Bar), and Yum! Brands (owner of Taco Bell, Pizza Hut, and KFC).⁵⁷

Investor groups are also putting forward shareholder resolutions calling on individual restaurant companies to adopt strong antibiotics policies, and set timelines for changes in their meat and poultry supply chains. In May 2016, a significant 26 percent of McDonald’s shareholders supported a resolution calling for the company to revise its policy to prohibit sourcing beef and pork that has been routinely dosed with antibiotics—the first shareholder vote on antibiotics

in several years.⁵⁸ Other shareholder resolutions have been filed this year urging YUM! Brands and Darden Restaurants to adopt strong antibiotics use policies.⁵⁹

“These large food companies are key ingredients in the portfolios of most of our pensions and savings – thus it is a case of proper risk management to ask them to work out how they will meet this challenge. The world is changing, regulation on antibiotic use is set to tighten and consumer preferences are shifting away from factory farmed food. As stewards of these food companies and responsible investors, we want to protect both human health and shareholder value.”

—Jeremy Collier, Founder of the FAIRR Initiative and Chief Investment Officer of Collier Capital





Use of Other Growth-Promoting Agents

The Chain Reaction scorecard aims to address the conventional meat industry's reliance on routine antibiotics as one strategy for warding off disease and stimulating faster weight gain in livestock. However, curbing the routine use of antibiotics will not automatically eliminate the industry's emphasis on fast growth rates, and there are a number of other agents on the market similarly used for growth promotion. These include hormones, beta agonists, and metal compounds.

As restaurant chains make progress on curbing the routine use of antibiotics, there is significant concern that producers may increase use of other growth-promoting agents to compensate for slower animal growth rates. Like the routine use of antibiotics, use of these other agents are unnecessary in food animal production, and carry risks to animal welfare and human health. The Chain Reaction II survey included questions about policies on other growth-promoting agents in meat supply chains, though responses were not scored. While covered as a topic of interest below, the survey did not include questions about the use of metals.

Metals

Producers routinely add zinc and copper to animal feed, particularly for pigs and poultry, for growth promotion, as a nutritional supplement, and sometimes to address disease.⁶⁰ Because zinc and copper have antimicrobial properties, exposing the

gut bacteria of farm animals to low levels has been shown to increase bacterial resistance to these metals and associated co-resistance^{vi} to certain antibiotics. While further research is needed to fully assess the risks, there is concern that misuse of zinc and copper in livestock and their elevated concentrations in manure may exacerbate antibiotic resistance that is already a health concern for humans.⁶¹

Hormones

Hormones are widely used in U.S. animal agriculture to promote faster growth,⁶² despite known adverse impacts on animal welfare, as well as concerns about potential impacts on human health. The beef industry uses six hormones—three naturally occurring hormones (estradiol, progesterone, and testosterone) and three synthetic hormones (zeranol, melengestrol acetate, and trenbolone acetate).⁶³ Though scientific research into the human health risks from hormone residues in beef is lacking, researchers at Johns Hopkins University have reviewed the available studies on the potential risks from the use of hormone implants and feed additives in food animals; they found that the FDA's approval of hormones continues to rely "on studies conducted decades ago by companies seeking approval, and [which] predate current scientific understanding of relevant human health risks, such as endocrine disruption."⁶⁴

The risks to human health are what prompted the European Food Safety Authority (EFSA) to ban the use of these hormones in beef production in Europe in 1989.⁶⁵ And in 2007, after a review of available

vi Bacteria can transfer bits of genetic material to other bacteria, and when genetic information coding for several unrelated resistance mechanisms is transferred in a single event and expressed in the new bacterial host it is referred to as "co-resistance".

scientific evidence, the EFSA concluded there is “convincing evidence for an association between the amount of red meat consumed and certain forms of hormone-dependent cancers.”⁶⁶ The American Public Health Association opposes use of hormone growth promoters in beef production, and urges an end to their use in food production citing the need for precaution to protect public health amid strong evidence for scientific concern.⁶⁷

Beta-Agonists

Ractopamine and zilpaterol are synthetic beta-agonist drugs commonly given to cattle, pigs, and turkeys in feed rations at the “finishing” stage to encourage increase in muscle mass and carcass weight before slaughter. These drugs have significant health impacts for the animals that receive them, and their residues have been detected on animal products that reach consumers. Multiple studies have shown that ractopamine contributes to increased numbers of “downer” animals, a term for animals that cannot walk or stand on their own due to illness or injury.⁶⁸ Ractopamine is linked to significant health problems and behavioral changes in animals, such as cardiovascular stress, muscular skeletal tremors, increased aggression, hyperactivity and acute toxicity.⁶⁹ Some reports indicate animals on ractopamine become so aggressive they must be additionally medicated to calm them down for transport.⁷⁰ Cattle fed beta-agonists spend 31 percent more time lying on their side with legs extended,⁷¹ a sign of fatigue and illness; are more likely to engage in combative behavior;⁷² and have higher rates of death.⁷³

Ractopamine residues have been detected on meat products at retail: a 2012 Consumers Union study tested approximately 240 pork products for ractopamine, and found residual amounts of the drug in about one-fifth of the samples tested.⁷⁴ Ractopamine has also been detected in water samples downstream from swine facilities.⁷⁵ Although studies on the human health effects of ractopamine are limited, preliminary data reviewed by the EFSA shows that ractopamine may cause elevated heart rates and heart-pounding sensations in humans, and that the drug may be riskier for people with heart issues.⁷⁶ At least one study showed that exposure to ractopamine at a dose of 10 parts per billion damaged human kidney, bladder, and other urinary tract cells, concluding that “long-term effects of ractopamine in the urinary tract system were evident” from both cell and animal studies.⁷⁷

Availability of Organic and Grass-Fed Alternatives

Many consumers seek certified organic meat and poultry, as well as grass-fed beef, because of concerns about the food safety, health, animal welfare and environmental impacts associated with meat from conventional industrial facilities.⁷⁸ Under the U.S. Department of Agriculture’s organic standard, antibiotics use is highly limited; sick animals must be treated with antibiotics when necessary, but treated animals cannot be sold under the organic label. Use of hormones or other synthetic chemicals for growth promotion is prohibited under the organic standard. Some independent grass-fed certification systems, such as the American Grassfed Association and Certified Pasturefed in Australia, verify that beef sold under their labels comes from cattle raised on pasture and fed a diet of grass, hay, and forage, often reducing the need for antibiotics. American Grassfed Association, in fact, expressly prohibits the routine use of antibiotics and growth hormones. Additionally, private animal welfare labels, such as Animal Welfare Approved and Certified Humane, also prohibit routine use of non-therapeutic animal drugs.

Summary of Key Findings

- » Ten of the 25 surveyed companies responded to questions about their policies on other growth-promoting agents, as well as the availability of organic and grass-fed beef options on their menus.
- » Chipotle is the only company responding to the Chain Reaction II survey that prohibits the use of hormones in its beef supply. The company reports that it sources some grass-fed beef for two of its beef offerings, accounting for 50 percent of total beef purchases. While Panera does not have a publicly-available policy prohibiting the use of hormones, the company reports that it only sources grass-fed beef from Australia.
- » While the company did not return a survey, Chili’s website prominently features two new grass-fed burger options that are raised without antibiotics and no added hormones.⁷⁹
- » Only two companies, Chipotle and Panera, stand out for having policies that prohibit the use of beta-agonists in their meat supplies.
- » None of the companies that returned the Chain Reaction II survey currently serve any organic meat items.



Honorable Mentions

The 2015 Chain Reaction scorecard profiled a short list of smaller or regional restaurant chains purchasing meat and poultry raised without the routine use of antibiotics and other drugs and helping make it more readily available to consumers around the country. This year, we've added to this Honorable Mentions list. Some of the companies below also offer organic and grass-fed alternatives. These restaurant chains were not surveyed, as they are not among the 25 largest restaurant chains.

- » *Au Bon Pain*. Operating over 310 restaurants in the U.S and abroad, Au Bon Pain has a “No. Antibiotics. Ever.” policy for all of the chicken and turkey it sources for its wraps, sandwiches and salads.
- » *Culvers*. This chain sources chicken raised without antibiotics for its sandwiches, tenders and salads at 575 restaurants around the U.S.
- » *Jason's Deli*. At its 260 restaurants in 30 states, Jason's Deli serves “100% antibiotic-free chicken” in all of its salads, pastas and sandwiches
- » *LYFE Kitchen*. “Love Your Food Everyday” is the mantra of this restaurant chain with 15 locations around the U.S. that sources meat (and fish!) raised without antibiotics.
- » *Noodles & Co.* This chain currently sources pork and beef raised without antibiotics at its 500+ restaurants nationwide, and recently announced that all of its meat and poultry will be raised according to this standard by 2017.
- » *Papa Murphy's*. This “take ‘n’ bake” pizza chain recently announced that it has begun sourcing chicken raised without antibiotics for all of its 1500+ locations nationwide.
- » *Tender Greens*. All meats are raised without antibiotics or hormones at this California-based company with 20+ locations around the state.

Conclusion

The market for meat and poultry raised without routine antibiotics use is growing fast. Industry progress over the last year, as captured in the Chain Reaction II scorecard, as well as the doubling in response rate to the Chain Reaction survey, tells us that this issue is now squarely on the radars of most top U.S. restaurant chains. Nonetheless, as the scorecard reveals, the majority of top U.S. chain restaurants still have no publicly-available policy limiting the routine use of antibiotics in their meat and poultry supply chains. With a few exceptions, even those companies with good policies on the books have made little progress in implementation and few have made progress beyond chicken.

Widespread reliance on routine antibiotics use in U.S. meat production reflects a broader pattern of poor farm management and animal welfare practices in industrialized systems.⁸⁰ Eliminating unnecessary uses of these drugs by the meat industry is an important step towards creating a healthier food system. To reduce the overall need for routine antibiotics, restaurant companies should encourage producers to improve animal diets and living conditions to support animal health and welfare.

Recommendations

For Restaurant Chains

- » Make firm, time-bound commitments to phase out antibiotics use except for treatment of sick animals or control of an identified disease outbreak in their meat and poultry supply. It is incumbent upon major restaurant chains to engage their producers to improve animal husbandry and find safer, healthier alternatives to routine antibiotics use.
- » Expand commitments beyond chicken to include beef, pork, and turkey.
- » Improve transparency about which antibiotics are actually being used by supplying farms, in what quantities, and for what species.
- » Provide regular progress updates for customers and investors and use third-party auditors to verify that progress.
- » Multinational companies, such as McDonald's, Subway, and KFC should institute global sourcing changes equal to or better than what they have in the U.S.

For Consumers

- » When purchasing meat, seek options raised without routine antibiotics use.
- » Wherever you eat, ask restaurant managers about their meat sourcing policies and practices and make sure they know that you're looking for options that are healthier for you, animals, and the environment—including meat produced without the routine use of antibiotics and other drugs. Appendix 3 includes a summary of company policies, as well as links to published policies where available.
- » Visit the websites and social media pages of top restaurant chains and leave comments asking them to switch to meat raised without routine use of antibiotics and other drugs except for treatment of sick animals or an identified disease outbreak and to provide more sustainably-produced alternatives like organic and grass-fed meat.
- » Visit the websites of the organizations that have authored this report and join our campaigns calling on top restaurant chains to commit to better meat and poultry sourcing policies.

For Federal Regulators and State Policymakers

- » Federal regulators should prohibit all uses of antibiotics for growth promotion and disease prevention. They should also put in place a comprehensive system to collect data on how antibiotics are used on livestock farms (which is currently missing), including information on amounts used, reason for use, and livestock species receiving antibiotics; and improve monitoring of resistant bacteria in food.
- » As with human use of antibiotics, the Administration should set a target for the reduction of antibiotic use in livestock.
- » States should adopt strong policies that replicate or build on the standards set by California with SB27 in 2015 with clear language that forbids the use of antibiotics for growth promotion and disease prevention.

Appendix 1: Survey Methodology and Questions

The authors of this report surveyed (via email and traditional mail) the top 25 U.S. fast food and fast casual restaurant chains, as ranked by total U.S. sales, asking a series of questions about their 1) antibiotics use policy; 2) policy implementation; and 3) transparency, including verification of policy compliance via third-party audits and reporting on progress of policy implementation. The survey in its entirety can be found below.

The survey also asked restaurant companies about their meat sourcing policies and practices in three related areas: 1) a policy specific to the use of carbadox; 2) use of other growth-promoting agents in meat supply chains; and 3) availability of organic meats and grass-fed beef options on company menus, as organic production disallows routine antibiotics use and grass-fed production discourages it. While responses to the latter three sets of questions are not incorporated into scorecard rankings, a discussion of these issues, as well as a summary of the survey findings, is included in the report.

In addition to reviewing survey responses, the authors examined company websites, annual reports, and other publicly available information on company policies. We sent at least two follow up emails in cases where a company did not respond to the survey. In cases where survey responses were not clear, we followed up with clarification questions via email and phone. Appendix 3 contains a summary of surveyed company policies and survey responses.

Survey on Restaurant Meat/Poultry Procurement Policies and Antibiotics April 2016

ANTIBIOTICS

POLICY

1. Does your company have a policyⁱ regarding the use of antibiotics in your US meat/poultry supply chain?ⁱⁱ

Yes ____ No ____

If yes, please complete the table below to describe your policy; to indicate what percentage of your company's meat/poultry is currently sourced under this policy; and when you expect this policy to be fully implemented.

If this policy is published, please provide URL: _____

If unpublished, please provide a copy.

	No antibiotics ever	No medically important antibiotics ever	No routine use* of antibiotics except for treatment of animals diagnosed with an illness**	Complies with FDA Guidance 213	% of product currently compliant with company policy	Date of anticipated full compliance with company policy
Chicken						
Turkey						
Pork						
Beef						

* "Routine use" refers to antibiotics use for growth promotion and/or disease prevention

**If you marked this option, please indicate which applies:

- ☐ Treated animals are removed from our supply chain.
☐ Treated animals are allowed to be sold in our supply chain.

If none of the above describes to your policy, please explain:

i We define "policy" to mean a **publicly available** written statement describing your company's approach to antibiotic use requirements by your suppliers.

ii All inquiries in this survey apply to your company's US locations, either company or franchise owned.

Appendix 1: Survey Methodology and Questions (continued)

2. What percent of your total meat/poultry purchases by volume does each of the following represent?

Chicken _____
Turkey _____
Pork _____
Beef _____

IMPLEMENTATION

3. Have you established interim benchmarks towards full implementation of your policy targets? If yes, please indicate what the benchmarks are. *For example, 20% implementation by 2018, 50 % by 2020, etc.*

	Yes/No	% by 2018	% by 2020	% by 2022	% by 2024	Other
All meat?	_____	_____	_____	_____	_____	_____
Chicken	_____	_____	_____	_____	_____	_____
Turkey	_____	_____	_____	_____	_____	_____
Pork	_____	_____	_____	_____	_____	_____
Beef	_____	_____	_____	_____	_____	_____

TRANSPARENCY

4. Does your company require independent third party auditing of your suppliers to verify compliance with your antibiotics policy? *(If no, skip to question #9)*

Yes _____ No _____

5. Are your auditing standards publicly available? Yes _____ No _____

6. As part of your auditing requirements, what is the frequency of on-site visits to supplying farms?

Frequency: _____

Not required: _____

7. What is your policy regarding suppliers who are found to be non-compliant?

8. Do you issue or plan to issue a public progress report, at least on an annual basis, on the implementation of your policy?

Yes _____ No _____

Please provide URL for progress report: _____

Appendix 1: Survey Methodology and Questions (continued)

BEYOND ANTIBIOTICS

9. Do you have a published policyⁱⁱⁱ prohibiting the use of beta-agonists (i.e. ractopamine and/or zilpaterol) in your meat and poultry supply?

Yes ____ No ____

- a. If yes, please provide the policy or a URL:
- b. Please indicate which classes of meat/poultry your policy applies to and roughly what percentage of each that is currently sourced under this policy:

	Policy applies	% of meat sourced under this policy
Turkey?	_____	_____
Pork?	_____	_____
Beef?	_____	_____

10. Do you have a published policy^{iv} prohibiting the use of the medicated feed additive carbadox in your meat supply?

Yes ____ No ____

If yes, please provide the policy or the URL: _____

11. Do you have a published policy^v prohibiting the use of hormone implants and hormone feed additives in your beef supply?

Yes ____ No ____

If yes, please provide the policy or the URL: _____

Please indicate the percentage of your beef that is currently source d under this policy?

ALTERNATIVE AND SUSTAINABLE MEAT OPTIONS

Do you serve any 100% grass-fed beef items?

Yes ____ No ____

- a. If so, how many items do you offer? What percent of your supply does that constitute?
- b. Are your grass-fed items certified by an independent third party certifier?

Yes ____ No ____

- i. If yes, which ones?

iii, iv, v See footnote #1

Appendix 1: Survey Methodology and Questions (continued)

12. Do you offer any certified organic items? Yes_____ No_____

a. If so, how many certified organic items do you offer? What percent of your meat and dairy offerings are organic?

	# of items	%
Chicken?	_____	_____
Turkey?	_____	_____
Pork?	_____	_____
Beef?	_____	_____

13. Is there anything else you would like to tell us about your efforts to improve social and environmental responsibility in your supply chain?

Appendix 2: Scoring Criteria

For restaurants offering chicken, beef, turkey and pork, the Chain Reaction II scorecard awarded a total of 100 potential points in three key categories: 1) Policy; 2) Implementation; and 3) Transparency. If a company offers only three kinds of meat or poultry, the maximum score was 75 points; two meats, the maximum was 50 points; and only one meat, the maximum was 25 points. If a company disclosed that a particular category of meat and/or poultry amounted to less than 5 percent of its total purchases, we did not include that category. The authors then assigned a letter grade based on the company's score as a percentage of the maximum score for that company. Scoring criteria for each category, as well as the total number of potential points awarded for each, are detailed below.

GRADE SCALE	91-100	A
	67-76	B
	53-59	C+
	43-52	C
	36-42	C-
	29-35	D+
	19-28	D
	<19	F

Category #1: Policy

Total number of potential points available: 40

The authors defined a “good” antibiotics use policy as follows:

A publicly available company policy that prohibits the use of all antibiotics, or antibiotics in classes used in human medicine, for growth promotion or disease prevention. Treatment of sick animals and use to control a disease outbreak are acceptable.

We awarded 7 points for each category of meat (chicken, turkey, pork, and beef) to which the good policy applied. We then awarded 3 points for each category of meat for which a company had announced a time-bound commitment for policy implementation. Companies that had already implemented a policy were given full credit for commitments. A company that made a partial commitment for a category (i.e. a certain subset of its chicken or beef) received half credit

Criteria #1: Good Policy	Good policy, applying to 1-4 meat categories
Chicken	7
Turkey	7
Pork	7
Beef	7
	Time-bound commitment for policy implementation
Chicken	3
Turkey	3
Pork	3
Beef	3

Appendix 2: Scoring Criteria (continued)

Category #2: Implementation
Total number of potential points available: 32

The authors assessed the current availability of meat and/or poultry raised without routine antibiotics use at surveyed company restaurants. We awarded an increasing number of points, per category of meat and/or poultry (chicken, turkey, pork, beef), based on the percentage of a company’s purchases that already comply with a good antibiotics use policy. We offered 1 point per category if a company was purchasing at least 15 percent of the meat or poultry it currently serves according to a good antibiotics use policy. The greatest number of points (32 points total, 8 per category) was available for companies reporting that meat and/or poultry raised without routine antibiotics use accounts for upwards of 86 percent of their purchases. We offer one bonus point per category for companies that have achieved 100 percent policy implementation in at least one meat category since last year.ⁱ

Category #2: Implementation	Estimated availability of meat and/or poultry produced according to policy
15-30% of meat and/or poultry currently served	1 point per category
31-45%	2 points per category
46-60%	4 points per category
61-85%	6 points per category
86-100%	8 points per category

i In cases where a company has only adopted a good antibiotics use policy for a subset of a meat and/or poultry category (e.g. chicken on pizza), we did not award any bonus implementation points in the absence of additional information regarding the overall share of purchasing in that category that this commitment represents.

Appendix 2: Scoring Criteria (continued)

Category #3: Transparency

Total number of potential points available: 28

The Chain Reaction II scorecard assigns points related to a number of transparency concerns: company responsiveness to our requests for information and the completeness of survey responses; whether a company works with third-party auditors or purchases from meat and poultry suppliers that have third-party audits for their entire supply chains; and whether a company publishes (or plans to publish) a regular, publicly-available progress update on implementation of its policy.

We offered half credit for what we considered only partial responses to our survey (answering some but not all questions). Full credit went to companies that either utilized independent third-party audits to verify compliance with their antibiotics use policy or purchased from suppliers that conducted third-party audits of their own for their entire supply chains. We gave half credit to companies that only partially relied on third-party audits. Full credit also went to companies that either published or, if it was less than a year since their policy was announced, indicated their intent to publish, regular progress updates on implementing their policies. To receive full credit, companies must publish publically available updates online. We gave full credit for various forms of updates including dedicated website, press releases, corporate social responsibility reports, etc.

If a company offered only one, two or three types of meat and poultry, its transparency score was adjusted to reflect this—i.e. if the company earned the maximum of 28 points but sold two types of meat, its final transparency score would be 14 points. However, a company's overall letter grade was based on points earned out of the calculated maximum points possible for that company.

Category #3: Transparency	
	Responded to survey
Partial response to survey	4
Complete response to survey	8
	Third party audits:
Company works with independent third party auditors; or suppliers that have third party audits for entire supply chain	9
Progress update is public and available online	11

Appendix 3: Company Profiles

Information in this Appendix concerning company ownership, number of restaurant locations and sales of fast food restaurant companies comes from QSR Magazine, The QSR 50, August 2015.ⁱ Information from companies included in the survey but not in the QSR article—including Applebee's, IHOP, Olive Garden, Chili's, Buffalo Wild Wings, and Denny's—is from other, referenced sources.

As used throughout this report, "Reported Information" concerning companies' antibiotics policies and other policies comes from companies' responses to the survey, follow up emails, public statements made by the companies, and/or efforts by the report's authors to locate such policies online. The report's authors encourage restaurant chains to contact them directly with additional information concerning antibiotics and/or meat sourcing policies, and to make such information publicly available.

1. McDonald's

Owned by: McDonald's Corporation (NYSE: MCD)

Corporate headquarters: 1 McDonald's Drive, Oak Brook, IL 60523

CEO: Stephen J. "Steve" Easterbrook

Number of U.S. locations: 14,350

2014 U.S. Sales: \$35.45 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:ⁱⁱ

Published policy: [http://www.aboutmcdonalds.com/content/dam/AboutMcDonalds/Sustainability/Antimicrobial Stewardship_Vision.pdf](http://www.aboutmcdonalds.com/content/dam/AboutMcDonalds/Sustainability/Antimicrobial_Stewardship_Vision.pdf)

<http://news.mcdonalds.com/US/Media-Statements/Response-to-Antibiotics-in-Chicken>

Antibiotics (U.S.): In March 2015, McDonald's committed to ending the use of medically important antibiotics in its U.S. chicken supply within two years.ⁱⁱⁱ On August 1, 2016, the company announced that all of the chicken sold in U.S. restaurants now complies with this policy, 7 months ahead of schedule.^{iv}

Third Party Audits: For their U.S. chicken supply, McDonald's suppliers are audited under a USDA Process Verified Program (PVP) protocol. Beyond this, the company's 2015 policy states: "McDonald's will verify antimicrobial use in supply chains where we have dedicated supply (supplier relationships and supply chain visibility of the animals/birds). Dedicated suppliers will maintain records of antimicrobial use and document compliance which will be verified by third party audits. Where we don't have dedicated supply, we will work within each area of the world with stakeholders, including suppliers, industry partners, government agencies, NGOs, veterinary and university extension networks, and other retailers to gain alignment on expectations and developing timelines for implementation and verification criteria that would reduce the use of medically-important antimicrobials in food animals."

Prohibits Hormones/Growth Promoters: No

Organic/Grass-Fed Options: No

i <http://www.qsrmagazine.com/reports/qsr50-2014-top-50-chart>

ii Unless otherwise noted, information obtained from company survey responses.

iii <http://news.mcdonalds.com/press-releases/mcdonald-s-usa-announces-new-antibiotics-policy-and-menu-sourcing-initiatives-nyse-mcd-1179405>

iv <http://news.mcdonalds.com/US/news-stories/2016/McDonald-s-USA-Announces-Big-Changes-to-its-Food>

Appendix 3: Company Profiles (continued)

2. Starbucks

Owned by: Starbucks Corporation (NASDAQ: SBUX)

Corporate headquarters: 2401 Utah S. Seattle, WA 98134

CEO: Howard Schultz

Number of U.S. locations: 12,107

2014 U.S. Sales: \$12.69 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^v

Published policy:

<http://globalassets.starbucks.com/assets/313ef95924754048b3ca8cea3cc2ff90.pdf>

Antibiotics: “In 2015 Starbucks expanded our animal welfare policy to include a focus on responsible use of antibiotics to support animal health. We are currently working with our suppliers to address concerns about antibiotic use and are looking to collaborate with others across our industry and in the NGO community to encourage the responsible use of antibiotics.”

Third Party Audits: Starbucks did not provide information on company auditing practices of meat and/or poultry suppliers in its survey response. In its “Animal Welfare-Friendly Practices” document, Starbucks states, “In the event concerns arise with the practices of a supplier, our approach is to work with them to correct the issues, but there are times when we halt business due to the nature of the issues and until adequate resolution takes place.”

Prohibits Hormones/Growth Promoters: Starbucks states that “Eliminating the use of artificial growth hormones, and for poultry, fast growing practices” are on its list of current areas of focus in establishing a buying preference in North America to use industry best practices for animal husbandry and processing for dairy, egg, and meat production.

Organic/Grass-fed options: No

3. Subway

Owned by: Doctor’s Associates, Inc.

Corporate headquarters: 325 Bic Drive, Milford, CT 06461

President/CEO: Suzanne Greco

Number of U.S. locations: 27,205

2014 U.S. Sales: \$11.9 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^{vi}

Published policy:

<http://www.subway.com/en-us/aboutus/socialresponsibility/sustainablesourcing#animalWelfare>

Antibiotics: Subway’s policy is to be fully implemented by 2025. Subway expects to fully transition to chicken raised without antibiotics, and introduce some antibiotic-free turkey products, by the end of 2016. Transition of pork and beef to antibiotic-free sources is expected to take until 2025. Subway’s “policy is that antibiotics can be used to treat, control and prevent disease, but not for growth promotion of farm animals.” Additionally, for those suppliers who are not meeting their new policy, they are requesting:

“Adopt, implement and comply with the U.S. Food and Drug Administration’s (“FDA’s”) guidance for industry 209 and 213, which requires that medically important antibiotics not be used for growth promotion.”

^v Unless otherwise noted, information obtained from company survey responses.

^{vi} Unless otherwise noted, information obtained from company survey responses.

Appendix 3: Company Profiles (continued)

“Assure that all antibiotics use is overseen, pre-approved and authorized by a licensed veterinarian before they are administered to any animal.”

“Keep accurate and complete records to track use of all antibiotics.”

“Adhere at all times to all legal requirements governing antibiotic withdrawal times.”

“Actively encourage, support and participate in research efforts focused on improving animal health while reducing antibiotics use.”

Third Party Audits: Subway stated that their chicken supply is third party verified. Several suppliers already work with the USDA Process Verified Program, and others are in the process of switching to a PVP. Suppliers who will provide turkey raised without antibiotics are also planning to use a USDA PVP audit protocol.

Prohibits Hormones/Growth Promoters: No

Organic/Grass-fed options: No

4. Burger King

Owned by: Restaurant Brands International (NYSE:QSR)

Corporate headquarters: 5505 Blue Lagoon Drive, Miami, FL 33126

CEO: Daniel S. Schwartz

Number of U.S. locations: 7,142

2014 U.S. Sales: \$8.6 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

No publicly available information about Burger King’s approach to antibiotics use in its U.S. supply chain was found.

5. Wendy’s

Owned by: The Wendy’s Company (NASDAQ: WEN)

Corporate headquarters: 1 Dave Thomas Boulevard, Dublin, OH 43017

CEO: Emil Brolick

Number of U.S. locations: 5,780

2014 U.S. Sales: \$8.6 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy: <https://www.wendys.com/en-us/about-wendys/antibiotic-use-policy-and-guidelines>

Antibiotics: Wendy’s updated its Antibiotic Use Policy in 2016, which states:

“We advocate for programs that allow for the humane care of animals, meaning sick animals must be treated. Yet, antibiotics should only be used when an animal has, or is at risk of developing, a health condition that antibiotics are needed to treat and only at the prescribed dosage that has been proven to be effective.

We support efforts to reduce – and when possible eliminate – the need for medically important antibiotics in animals raised for food. We know this won’t be easy, and it may take time, but we believe it is a logical approach to preserving the therapeutic benefits of antibiotics for human and veterinary medicine.

Specifically, we require our suppliers to develop and adhere to protocols that:

Replace – When antibiotics are deemed necessary, all suppliers must certify to Wendy’s that farmers and ranchers and their staff work under supervision or guidance of their veterinarians.

Appendix 3: Company Profiles (continued)

No antibiotics that are medically important to human health should be used to help animals grow.

Reduce – Wendy’s works with its suppliers and farmers and ranchers to reduce the use of antibiotics that are important to human medicine. It is Wendy’s stated our long-term goal to find ways to phase out the use of medically important antibiotics on the farms that our suppliers source from:

Chicken: In collaboration with our chicken suppliers, Wendy’s has begun the process of eliminating all antibiotics important to human medicine from chicken production. We aim to achieve this goal in 2017. By 2019 it will only purchase chicken from suppliers whose farms are part of USDA’s Process Verified Program, certifying compliance with animal care best practices and policies to eliminate the use of antibiotics that are medically important to human medicine or can prove certification from an equally high standard.

Pork: In partnership with our pork suppliers, Wendy’s is committed to reducing the use of antibiotics important to human medicine and eventually eliminating use if possible.

Beef: Cattle production is especially complex and elimination of these antibiotics is harder to accomplish without compromising animal wellbeing. Wendy’s is actively engaged with academics and industry experts on work that includes trials for probiotics, vaccines, feed supplements and nutrition composition.

In 2017, we will commit to specific goals for the reduction of antibiotics important to humans in pork and beef production.

Refine – We are engaging our suppliers as well as public health and veterinary experts to help us identify opportunities to further refine animal care practices within our system, ultimately supporting our ability to continue producing safe food, while keeping animals healthy and using fewer antibiotics where possible.”

Third Party Audits: To ensure supplier compliance, suppliers undergo regular audits by trained Wendy’s Quality Assurance representatives and third party consultants to verify conformance to policy requirements. All suppliers are required to affirm in writing their obligation to conform to Wendy’s Antibiotic Use Policies and Guidelines. Suppliers will undergo regular audits by both trained Wendy’s Quality Assurance representatives and third party consultants to verify conformance to these requirements.^{vii}

Prohibits Hormones/Growth Promoters: No

Organic/Grass-fed options: No

6. Taco Bell

Owned by: Yum! Brands, Inc. (NYSE: YUM)

Corporate headquarters: 1 Glen Bell Way, Irvine, CA 92618

CEO: Brian Niccol

Number of U.S. locations: 5,921

2014 U.S. Sales: \$8.2 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy:

<https://www.tacobell.com/news/statement-regarding-antibiotics>

Antibiotics: Taco bell “plans to stop using antibiotics important to human medicine in our chicken by the end of Q1, 2017.”

Third Party Audits: The company claims that it requires independent third party auditing of its suppliers to verify compliance with its antibiotics policy. However, it does not conduct on-farm inspections.

Prohibits Hormones/Growth Promoters: No

Organic/Grass-fed options: No

vii <http://www.squaredealblog.com/homewendys/animalwelfare>

Appendix 3: Company Profiles (continued)

7. Dunkin' Donuts

Owned by: Dunkin' Brands

Corporate headquarters: 130 Royall Street, Canton, MA 02021

CEO: Nigel Travis

Number of U.S. locations: 8,082 U.S.

2014 U.S. Sales: \$7.2 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^{viii}

Published policy: http://www.dunkinbrands.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/226/files/20150/Animal%20Welfare%20Policy%20for%20website.pdf

Antibiotics: Dunkin' Donuts' published policy states: "Antibiotic/Antimicrobial Use: Suppliers should only administer antibiotics and antimicrobials to animals for the control and treatment of disease. Per FDA Guidance 209, suppliers are required to phase out the use of medically important antimicrobials in food animals for production purposes; suppliers are also required to bring the therapeutic uses of such antimicrobials under the oversight of licensed veterinarians." In email communication, Dunkin' Donuts stated that this policy allows the use of medically important for disease prevention.^{ix} This is a shift from the information we received from the company in 2015 and weakening of their commitment to ending routine use. Last year, Dunkin' Donuts' survey stated that their policy prohibited the use of antibiotics for disease prevention.

Third Party Audits: No

Prohibits Hormones/Growth Promoters: Not found

Organic/Grass-fed options: Not found

8. Chick-fil-A

Owned by: Privately held company

Corporate headquarters: 5200 Buffington Road | Atlanta, GA 30349

CEO: Dan T. Cathy

Number of U.S. locations: 1,887

2014 U.S. Sales: \$5.78 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy: <http://www.chick-fil-a.com/Antibiotic-Free>

Antibiotics: Chick-fil-A has a "No Antibiotics Ever" standard for its chicken. The company states, "This means we don't allow antibiotics to be added to the feed, water or any commercial vaccines used by our suppliers. We also don't allow ionophores (which are commonly used to prevent intestinal illnesses in animals)."

Third Party Audits: Chick-fil-A requires independent third-party auditing of its suppliers on an annual basis. The company participates in the USDA Process Verified Program to ensure its "No Antibiotics Ever" standard is independently verified at suppliers.

Prohibits Hormones/Growth Promoters: No

Organic/Grass-fed options: No

viii Unless otherwise noted, information obtained from company survey responses.

ix Personal communication by email from Anne Fajon to Steven Roach, June 23, 2016.

Appendix 3: Company Profiles (continued)

9. Pizza Hut

Owned by: Yum! Brands, Inc. (NYSE: YUM)

Corporate headquarters: 7100 Corporate Drive, Plano, TX 75024

CEO: David Gibbs

Number of U.S. locations: 7,863

2014 U.S. Sales: \$5.5 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy:

<http://blog.pizzahut.com/press-center/pizza-hut-announces-new-food-commitments-launches-microsite-dedicated-to-food-you-feel-good-about-story/>

Antibiotics: Pizza Hut plans to eliminate “Antibiotics important to human medicine from chicken for its pizzas by end of March 2017”

Third Party Audits: The company reports that it requires independent third party auditing of its suppliers to verify compliance with its antibiotics policy, including annual on-site visits to supplying farms.

Prohibits Hormones/Growth Promoters: No

Organic/Grass-fed options: No

10. Applebee's

Owned by: DineEquity, Inc.

Corporate headquarters: 8140 Ward Parkway, Kansas City, MO 64114

CEO: Julia A. Stewart

Number of U.S. locations: 1,870^x

2014 U.S. Sales: \$4.6 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

No publicly available information about Applebee's approach to antibiotics use in its U.S. supply chain was found.

11. Panera Bread

Owned by: Panera Bread Company (NASDAQ: PNRA)

Corporate headquarters: 3630 S. Geyer Rd Suite 100, St Louis, MO 63127

CEO: Ronald M. Shaich

Number of U.S. locations: 1,880

2014 U.S. Sales: \$4.5 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^{xi}

x DineEquity SEC 10-K Filing for Fiscal Year Ending December 31, 2014 (<https://www.sec.gov/Archives/edgar/data/49754/000004975415000004/din-12312014x10k.htm>)

xi Unless otherwise noted, information was obtained from company survey responses.

Appendix 3: Company Profiles (continued)

Published policies:

Food Policy: <https://www.panerabread.com/content/dam/panerabread/documents/nutrition/panera-bread-food-policy.pdf>

Animal Welfare Update: <https://www.panerabread.com/panerabread/documents/press/2015/animal-welfare-press-release-11012015.pdf>

Animal Welfare Infographic: <https://www.panerabread.com/en-us/company/animal-welfare-infographic.html>

Antibiotics: Panera's "Raised Without Antibiotics" standard allows for no antibiotics use ever for chicken, turkey and pork. For beef, the company's policy is no routine use of antibiotics except for treatment of animals diagnosed with an illness.

Third Party Audits: Panera requires independent third-party of its suppliers on an annual basis to verify compliance with your antibiotics policy. Panera's auditing standards are not publicly available.

Prohibits Hormones/Growth Promoters: Panera states that its "Raised Without Antibiotics" standard prohibits the use of any natural or chemical medicine that has antibiotic or antimicrobial properties, such as beta-agonists, and that beta-agonists are outlawed in Australia where it sources its beef.

The company has no formal written policy on growth hormone use in beef but states, "Our beef comes from Australia where it is grass-fed and finished and our supplier has confirmed that these cattle do not receive hormone feed additives. Moreover, they confirmed that hormone implants are mainly used for animals going to feedlots, so use of implants in our grass fed beef is thought to be minimal. We are working to further enhance our animal welfare policy."

Organic/Grass-fed options: Panera does not offer any organic items. The company reports that its steak is currently the only beef offering on its menu and that by 2016, it expects 100% of its steak to be grass-fed, raised on pasture. "Our beef comes from Australia where it is grass-fed and finished. Australian regulation defines grass-fed cattle as raised on pasture and not brought to a confined feedlot for intensive feeding. Our purchases fall under this classification for grass-fed, pasture raised beef."

12. KFC

Owned by: Yum! Brands, Inc. (NYSE: YUM)

Corporate headquarters: 1441 Gardiner Lane, Louisville, KY 40213

CEO: Roger Eaton

Number of U.S. locations: 4,370

2014 U.S. Sales: \$4.2 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy:

<https://www.kfc.com/about/responsibility>

Antibiotics: KFC expects that "by 2017, antibiotics important in human medicine will only be used to maintain chicken health, and only under the supervision and prescription of a licensed veterinarian. The use of these antibiotics for growth promotion is not allowed."

Third Party Audits: Not found

Prohibits Hormones/Growth Promoters: KFC notes it's "chicken is free of added hormones and steroids," in compliance with existing "FDA regulations [which] prohibit the addition of hormones in poultry in the U.S."

Organic/Grass-fed options: No

Appendix 3: Company Profiles (continued)

13. Domino's

Owned by: Domino's Pizza Inc. (NASDAQ: DPZ)

Corporate headquarters: 30 Frank Lloyd Wright Drive, Ann Arbor, MI 48105

CEO: J. Patrick Doyle

Number of U.S. locations: 5,067 U.S.

2014 U.S. Sales: \$4.1 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

No publicly available information about Domino's approach to antibiotics use in its U.S. supply chain was found.

14. Chipotle

Owned by: Chipotle Mexican Grill Inc. (NYSE: CMG)

Corporate headquarters: 1401 Wynkoop Street #500, Denver, CO 80202

CEO: Steve Ells

Number of U.S. locations: 1,755

2014 U.S. Sales: \$4.04 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^{xii}

Published policy: <https://chipotle.com/food-with-integrity#saying-no-to-drugs>

Antibiotics: Chipotle states in the company's annual report: "In all of our restaurants, we endeavor to serve only meats that were raised without the use of non-therapeutic antibiotics or added hormones, and in accordance with criteria we've established in an effort to improve sustainability and promote animal welfare."^{xiii}

Third Party Audits: Chipotle audits all of their suppliers. The company utilizes third party audits, but their primary source of compliance verification is their in-house team of full-time auditors.^{xiv}

Prohibits Hormones/Growth Promoters: Chipotle's suppliers must have a program in place that clearly explains "that the administration of growth hormones, including natural hormones, synthetic hormones, estrus suppressants, beta agonists, or other synthetic growth promotants is prohibited from birth to slaughter."

Organic/Grass-fed options: The company reports that more than 50% of their beef supply is grass-fed.

xii Unless otherwise noted, information was obtained from company survey responses.

xiii 2015 Chipotle Annual Report available here: <http://ir.chipotle.com/phoenix.zhtml?c=194775&p=irol-reportsAnnual>

xiv Josh Brau, Program Manager, Food With Integrity, Chipotle Mexican Grill. Phone communication, July 20, 2016.

Appendix 3: Company Profiles (continued)

15. Sonic Drive In

Owned by: Sonic Corp. (NASDAQ: SONC)

Corporate headquarters: 300 Johnny Bench Drive, Oklahoma City, OK 73104

CEO: J. Clifford Hudson

Number of U.S. locations: 3,517

2014 U.S. Sales: \$4.1 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Sonic does not have a publicly available antibiotics policy at this time. In their survey response, they indicated that the company "...is in the process of evaluating our protein supply with regarding to antibiotics..."

16. Olive Garden

Owned by: Darden Restaurants, Inc. (NASDAQ: DRI)

Corporate headquarters: 1000 Darden Center Drive, Orlando, FL 32837

CEO: David George

Number of U.S. locations: 844^{xv}

2014 U.S. Sales: \$3.8 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy:

<https://www.darden.com/citizenship/plate/sourcing>

Antibiotics: Darden Restaurants "supports the FDA guidelines which recommend that by the end of 2016, antibiotics that are medically important in human medicine be phased out from use with farm animals for growth purposes, and shared-class antibiotics (i.e., those used for both humans and animals) only be used for the treatment of disease in farm animals under the supervision of a veterinarian. All of our land-based protein supply will meet these guidelines by December 2016."

Third Party Audits: Darden has "a long-established program requiring animal welfare certification by third-party auditors from all land-based protein suppliers."

Prohibits Hormones/Growth Promoters: Not found

Organic/Grass-fed options: Not found

xv Per Darden Restaurants 10-K filings, July 24, 2015 (<http://d1lqe852tjjqow.cloudfront.net/CIK-0000940944/de5a7431-5a3e-41ab-be60-3a849059381c.pdf>)

Appendix 3: Company Profiles (continued)

17. Chili's Grill and Bar

Owned by: Brinker International Inc. (NYSE: EAT)

Corporate headquarters: 6820 Lyndon B Johnson Freeway, Dallas, TX 75240

CEO: Wyman Roberts

Number of U.S. locations: 1,555^{xvi}

2014 U.S. Sales: \$3.6 billion^{xvii}

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy:

http://brinker.com/commitment/food_quality.html

Antibiotics: Brinker International “support[s] the action that FDA is taking to eliminate the use of medically important antibiotics for growth promotion and feed conversion” and that “antibiotics should be available as a course of treatment as long as they are prescribed by a doctor or veterinarian.” The company has promised to continue to work with our suppliers to ensure that antibiotics are used judiciously and only when necessary so that their effectiveness is maintained.”^{xviii}

Third Party Audits: Not found

Prohibits Hormones/Growth Promoters: Not found

Organic/Grass-fed options: In 2016, Chili's Grill and Bar added a grass-fed burger option that is described as “antibiotic free and has no added hormones.”^{xix}

18. Little Caesars

Owned by: Illitch Holdings, Inc.

Corporate headquarters: 2211 Woodward Ave, Detroit, MI 48201

CEO: David Scrivano

Number of U.S. locations: 4,025

2014 U.S. Sales: \$3.23 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

No publicly available information about Little Caesars' approach to antibiotics use in its U.S. supply chain was found.

xvi Total domestic Chili's franchise and company owned restaurants, per Brinker International 2014 Annual Report (<http://www.brinker.com/company/Brinker2014/annualreport2014.pdf>)

xvii NRN 2015-top-100-restaurant-chain-countdown

xviii http://brinker.com/commitment/food_quality.html

xix <http://www.brinker.com/company/chilis.html>

Appendix 3: Company Profiles (continued)

19. Buffalo Wild Wings

Owned by: Buffalo Wild Wings, Inc. (NASDAQ: BWLD)

Corporate headquarters: 5500 Wayzata Boulevard, Minneapolis, Minnesota 55416

CEO: Sally Smith

Number of U.S. locations: 1,071^{xx}

2014 U.S. Sales: \$3.2 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

No publicly available information about Buffalo Wild Wings' approach to antibiotics use in its U.S. supply chain was found.

20. Dairy Queen

Owned by: International Dairy Queen, Inc. (owned by Berkshire Hathaway Inc.)

Corporate headquarters: 7505 Metro Boulevard, Edina, MN 55439

CEO: John Gainor

Number of U.S. locations: 4,512

2014 U.S. Sales: \$3.2 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Dairy Queen responded to our survey stating they do not have a policy on antibiotic use but that their suppliers "must have policies in place that manage use of antibiotics in the animals in their supply chain."

21. Jack in the Box

Owned by: Jack in the Box Inc. (NASDAQ: JACK)

Corporate headquarters: 9330 Balboa Ave. San Diego, CA 92123-1516

CEO: Leonard Comma

Number of U.S. locations: 2,250

2014 U.S. Sales: \$3.2 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^{xxi}

Published policy: No

Antibiotics: Jack in the Box supplied the following statement in their survey response:

"Our purchasing contracts require our producers and their suppliers to abide by all applicable federal laws. We rely upon established government regulations to ensure that our producers and their suppliers, when utilizing antibiotics, do so in a judicious and appropriate manner.

We are encouraged by and applaud research into the development of safe and ethical alternatives for the treatment of sick and injured animals, and we look forward to a time when antibiotics important to human medicine can be phased out of the food-supply chain."

xx Number of 2014 company-owned and franchise locations, Buffalo Wild Wings Annual SEC Section 13 Report ir.buffalowildwings.com/common/download/download.cfm?companyId=BWLD&fileid=817353&filekey=B5884551-D285-425F-8A0A-E504F82666EC&filename=BWLD_10-K_2014.pdf

xxi Unless otherwise noted, information obtained from company survey responses.

Appendix 3: Company Profiles (continued)

Third Party Audits: No

Prohibits Hormones/Growth Promoters: No

Organic/Grass-fed options: No

22. Arby's

Owned by: Roark Capital Group and The Wendy's Company

Corporate headquarters: 1155 Perimeter Center West, Atlanta, GA 30338

CEO: Paul Brown

Number of U.S. locations: 3,226

2014 U.S. Sales: \$3.2 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

Published policy:

http://arbys.com/desktop/images/corporate_responsibility/Arbys_CSR.pdf

Antibiotics: Arby's is "in compliance with all applicable FDA guidelines relating to the use of antibiotics in our proteins." In 2017, Arby's will "begin transitioning to serving only chicken raised without antibiotics important to human health."

Third Party Audits: Not found^{xxii}

Prohibits Hormones/Growth Promoters: Not found

Organic/Grass-fed options: Not found

23. International House of Pancakes (IHOP)

Owned by: DineEquity (NYSE: DIN)

Corporate headquarters: 450 N. Brand Boulevard, 7th Floor, Glendale, California 91203

CEO: Julia Stewart

Number of U.S. locations: 1,579^{xxiii}

2014 U.S. Sales: \$2.9 billion

Returned the Survey: No

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:

No publicly available information about IHOP's approach to antibiotics use in its U.S. supply chain was found.

xxii "Arby's Technical Services is responsible for conducting routine audits at each vendor processing facility that supplies animal protein items to Arby's." (http://arbys.com/desktop/images/corporate_responsibility/Arbys_CSR.pdf)

xxiii DineEquity SEC 10-K Filing for Fiscal Year Ending December 31, 2014 (<https://www.sec.gov/Archives/edgar/data/49754/000004975415000004/din-12312014x10k.htm>)

Appendix 3: Company Profiles (continued)

24. Papa John's Pizza

Owned by: Papa John's International, Inc. (NASDAQ: PZZA)

Corporate headquarters: 2002 Papa John's Boulevard, Louisville, KY 40299

CEO: John Schnatter

Number of U.S. locations: 3,250

2014 U.S. Sales: \$2.7 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^{xxiv}

Published policy:

<http://www.papajohns.com/company/company-corporate-responsibilites.html> ; <http://ir.papajohns.com/releasedetail.cfm?releaseid=947285>

Antibiotics: Papa John's announced in 2015 "grilled chicken pizza toppings and chicken poppers will consist of poultry that is raised without human and animal antibiotics... by summer 2016."^{xxv}

Third Party Audits: No

Prohibits Hormones/Growth Promoters: No

Organic/Grass-fed options: No

25. Denny's

Owned by: Denny's Corporation (public: DENN)

Corporate headquarters: 203 E. Main Street, Spartanburg, SC 29319

CEO: John C. Miller

Number of U.S. locations: 1,596^{xxvi}

2014 U.S. Sales: \$2.5 billion

Returned the Survey: Yes

Information concerning meat sourcing as reported in disclosed policies, public statements, publically available information or correspondence with the authors:^{xxvii}

Published policy: No

Antibiotics: Denny's policy is to adhere to FDA Guidance 213, which discourages the use of medically important antibiotics for growth promotion.

Third Party Audits: No

Hormones/Growth Promoters: No official policy, although the company noted that "at a minimum, 82% of beef packers have banned Zilmax from their supply chains."

Organic/Grass-fed options: No

xxiv Unless otherwise noted, information obtained from company survey responses.

xxv <http://ir.papajohns.com/releasedetail.cfm?releaseid=947285>

xxvi Total US restaurants, owned and franchised, per Denny's Corp. 10-K Filings for the fiscal year end December 31, 2014, <http://d1lge852tjjqow.cloudfront.net/CIK-0000852772/4dffc5b5-fc81-4b75-8309-ec862cd5239e.pdf?noexit=true>

xxvii Unless otherwise noted, information obtained from company survey responses.

Endnotes

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- 4 Chick-fil-A, "Chickens Raised With No Antibiotics Ever," <http://www.chick-fil-a.com/Antibiotic-Free> , accessed August 2, 2016.
- 5 Beth Bell, MD, MPH, Testimony: House Energy and Commerce Committee, Subcommittee on Oversight and Investigations, June 14, 2016, <http://www.cdc.gov/washington/testimony/2016/t20160614.htm>.
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