

The Gleaner

Published bimonthly by

Sacramento Vegetarian Society



For the animals. For your health. For our planet.

Eating Animals is Making Us Sick

JONATHAN SAFRAN FOER

Reprinted from CNN, October 28, 2009

Editor's note: Jonathan Safran Foer is the author of the critically acclaimed novels *Everything is Illuminated* and *Extremely Loud and Incredibly Close*. His latest book, the nonfiction *Eating Animals*, (Little, Brown and Co.) will be published in November.

Like most people, I'd given some thought to what meat actually is, but until I became a father and faced the prospect of having to make food choices on someone else's behalf, there was no urgency to get to the bottom of things.

I'm a novelist and never had it in mind to write nonfiction. Frankly, I doubt I'll ever do it again. But the subject of animal agriculture, at this moment, is something no one should ignore. As a writer, putting words on the page is how I pay attention.

If the way we raise animals for food isn't the most important problem in the world right now, it's arguably the No. 1 cause of global warming: The United Nations reports the livestock business generates more greenhouse gas emissions than all forms of transportation combined.

It's the No. 1 cause of animal suffering, a decisive factor in the creation of zoonotic diseases like bird and swine flu, and the list goes on. It is the problem with the most deafening silence surrounding it.

Even the most political people, the most thoughtful and engaged, tend not to "go there." And for good reason. Going there can be

extremely uncomfortable. Food is not just what we put in our mouths to fill up; it is culture and identity. Reason plays some role in our decisions about food, but it's rarely driving the car.

Why aren't more people aware of, and angry about, the rates of avoidable food-borne illness?

We need a better way to talk about eating animals, a way that doesn't ignore or even just shruggingly accept things like habits, cravings, family, and history but rather incorporates them into the conversation. The more they are allowed in, the more able we will be to follow our best instincts. And although there are many respectable ways to think about meat, there is not a person on Earth whose best instincts would lead him or her to factory farming.

My book, *Eating Animals*, addresses factory farming from numerous perspectives: animal welfare, the environment, the price paid by rural communities, the economic costs. In two essays, I will share some of what I've

learned about how the way we raise animals for food affects human health.

What we eat and what we are. Why aren't more people aware of, and angry about, the rates of avoidable food-borne illness? Perhaps it doesn't seem obvious that something is amiss simply because anything that happens all the time—like meat, especially poultry, becoming infected by pathogens—tends to fade into the background.

Whatever the case, if you know what to look for, the pathogen problem comes into terrifying focus. For example, the next time a friend has a sudden "flu"—what folks sometimes misdescribe as "the stomach flu"—ask a few questions. Was your friend's illness one of those "24-hour flus" that come and go quickly: retch or crap, then relief? The diagnosis isn't quite so simple, but if the answer to this question is "yes," your friend probably didn't have the flu at all.

He or she was probably suffering from one of the 76 million cases of food-borne illness the Centers for Disease Control and Prevention (CDC) has estimated happen in America each year. Your friend didn't "catch a bug" so much as eat a bug. And in all likelihood, that bug was created by factory farming.

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For the animals. For your health. For our planet.

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Mission Statement:

The Sacramento Vegetarian Society (SVS) is an association which recognizes vegetarianism to mean abstinence from flesh, including fish and fowl.

The Society encourages vegetarians and non-vegetarians to participate.

SVS will not discriminate on the basis of race, color, creed, sex, age, or sexual preference.

SVS operates on a non-profit basis.

SVS Officers

President, *Linda Middlesworth*
Vice President, *Marty Maskall*
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The Gleaner
is published bimonthly by SVS.

Submission Guidelines

Send submissions or inquiries to:

Editor: MRODGERS@MACNEXUS.ORG.

Submissions of articles relating to the various aspects of vegetarianism, including nutrition, animal rights, environmental impacts of food production, and political issues are welcome, as are vegan or vegetarian recipes, editorial commentary, book reviews, and announcements of upcoming events. Submissions are accepted electronically as e-mail attachments. Contact the editor or check the website for formatting specifications.

Submission deadlines for articles:

January–February 2010: Dec. 20, 2009

March–April 2010: Feb. 14, 2010

May–June 2010: Apr. 14, 2010

July–August 2009: June 12, 2010

SVS Monthly Potluck

Sunday, November 15 • 5:30 p.m.
1914 Alhambra Blvd., Sacramento

in the Sacramento Natural Foods Co-op's Community Services Room

Dr. Don Forrester

Wellness and Plant-Based Nutrition

Potluck: Bring a vegan or vegetarian dish for six, your utensils, a list of ingredients, and mark whether your offering is vegan or vegetarian. We prefer that you bring a vegan dish, so all attendees, most of whom are vegan, can partake of all offerings. Free entrance with potluck dish; \$4 for those who arrive empty handed.

Want to bring a vegan dish to the potluck but don't know what to fix? Call the SVS Veggie Mentor, Linda Middlesworth, at (916) 798-5516.

Calendar

Send calendar entries for the Jan.–Feb. '10 issue by Jan. 3, to MRODGERS@MACNEXUS.ORG.

Locations are in Sacramento unless otherwise noted.

Sat. November 14

SVS Dineout. 6 p.m. Join us for Vietnamese cuisine at **Andy Nguyen's Vegetarian Restaurant**, 2007 Broadway. RSVP at events@sacramentovegetariansociety.org or sacveggie.org.

Sun., November 15

SVS Monthly Potluck. 5:30–7:30 p.m. **Dr. Forrester: Wellness and Plant-Based Nutrition.** See above.

Thurs., November 26

SVS Vegan Thanksgiving Potluck. 5 p.m. 434T Street (5th & T), Southside Park Cohousing Common House. If you've been hungering for a cruelty-free Thanksgiving dinner, bring your favorite vegan holiday dish and join Sacramento Vegetarian Society members and friends for a delicious vegan feast. Free for SVS members and children under 10; \$7 for nonmembers. Beverages and place settings will be provided. To make reservations and indicate your potluck dish, go to sacveggie-announce@meetup.com.

Sat., December 12

SVS Dineout. 6 p.m. Join us for Asian cuisine at **Au Lac Veggie**, 3500 Stockton Blvd. RSVP at events@sacramentovegetariansociety.org or sacveggie.org.

Sun., December 20

SVS Monthly Potluck. 5:30–7:30 p.m. 1914 Alhambra Blvd. Bring a vegan (preferred) or vegetarian dish for six, a list of ingredients, and your utensils. Free with potluck dish; \$4 for those who arrive empty handed.

From the President



LINDA MIDDLESWORTH

Our **September potluck** was another success with great vegan food and an informational DVD from Dr. Michael Greger on the latest clinical nutrition studies for 2009. We learned which foods contain the highest levels of antioxidants and health benefits and which foods are harmful or do nothing at all. We know, for instance, that the best sweetener is either dates or date sugar, as dates contain antioxidants. We know that green and white tea with lemon are full of healthy fiber and antioxidants and that we can decrease our risk for cancers drinking this all day long.

The **October potluck**, with about 70 people, was a smash hit with great home-made food, Sugar Plum Vegan Bakery cupcakes and apple pies, etc. No one went home hungry or disappointed in the delectable food. Our members are making a real effort to make their dishes tasty. Even if you hate to cook, you can just pay a \$4 admission instead. Or go to Papa Murphy's, order a vegan pizza, bake it for 15 minutes, and bring it along.

The famous, charming author and chef, Colleen Patrick-Goudreau had to cancel her presentation because she came down with a bad flu. The good news is she has rescheduled for February.

Some people attending SVS potlucks are just learning the reasons for eating a plant-based diet. We know that the foods we eat can either make us sick, or make us well. From the long-term, unbiased studies of Dr. T. Colin Campbell and Dr. John McDougall, we can absolutely identify the foods that increase our risk of cancer, heart disease, diabetes, obesity, digestive disorders, autoimmune diseases, etc.

Animal protein, whether in the form of meat (including fish), dairy (including all cheeses, yogurts), or eggs is the culprit. By coming to potlucks, we can all learn how to replace harmful animal proteins with plant-based foods.

We welcome all types of eaters and hope that our informational speakers and DVD presentations will give everyone the tools to improve their own health, help stop animal suffering, and help prevent the devastation of our planet.

TECH ALERT!

Update Your Connection to SVS before January!

We have a new way of contacting all of you now, so, even if you already signed up on our e-mail list, and/or are a guest or a member, please re-sign up at Sac Veg Society Meetup (go to <http://www.meetup.com/sacveggie-org/> or type "Sac Veg Society Meetup" into your browser). That way, you will get automatic notices about our events. At the end of December, we will no longer be contacting you through the e-mail list we had before.

This message is for all members and guests, past and current.

Recipe

Best Vegan Mac & Cheese

FROM *VegWeb.com*

1½ cups plain soy milk
1 cup water
⅓ cup tamari or soy sauce
1½ cup nutritional yeast
1 tablespoon paprika
1 tablespoon garlic powder
1 tablespoon salt
¼ cup or block of firm tofu
1 cup canola or vegetable oil (can replace oil with veg broth)

1½ lb pasta, (non egg, not enriched, e.g., 100% semolina)

1 dollop of mustard

Preheat oven to 350°. Boil water in big pot for pasta.

Blend all ingredients except pasta.

Once pasta is cooked, drain, place in a relatively large (brownie) pan and pour cheese sauce over. Cook about 15 min. until crispy (but not too crispy).

Who You Callin' Vegangelical?

ARI SOLOMON

Reprinted with the author's permission from the September 17, 2009, Huffington Post

Recently I've heard some perplexing criticisms of veganism. They go something like this: vegans are extremists, vegans are so preachy, veganism is like some fanatical religion, veganism is a cult. There obviously is some misunderstanding going on and I'd like to try and stamp out this issue once and for all. I realize I can't possibly speak for all vegans, but this is how I see it:

First of all, veganism is clearly not some religion or cult. There is no Church of Vegan. Veganism is a philosophy. Donald Watson first coined the term "vegan" in 1944. This was how he defined it:

"The word 'veganism' denotes a philosophy and way of living which seeks to exclude—as far as is possible and practical—all forms of exploitation of, and cruelty to, animals for food, clothing, or any other purpose, and by extension, promotes the development and use of animal-free alternatives for the benefit of humans, animals, and the environment. In dietary terms it denotes the practice of dispensing with all products derived wholly or partly from animals."

Sounds pretty simple right?

Well, nowadays people become vegan for all different reasons. They might go vegan because of health reasons, or perhaps they've read that animal agriculture is the number

one cause of global warming. But, if someone is an ethical vegan, that means they've chosen to open their mind and heart to the suffering of animals. They want to alleviate unnecessary suffering where they can. (There are actually some people who feel that unless you go vegan for ethical reasons that you're not really "vegan," but that's a whole other story.)

You can't discuss your "personal choice" of eating animals while leaving animals out of the conversation.

Here's where things get interesting. While many of us may feel a certain attachment to the food we eat (cheese, anyone?), there is actually no human dietary requirement for animal foods. It's true. You don't need to eat meat, dairy, or eggs to live.

In fact, Dr. T. Colin Campbell, who conducted the foremost study on human nutrition for over 40 years, detailed in his book *The China Study* how a vegan diet is actually better suited for optimal human health. This means that people eat animals not because they have to, but because they want to. Now, of course I'm not talking about people who live in countries where food is scarce and they'll die unless they eat animal foods. I'm talking about you and me. People who shop at the supermarket where tofu, beans, rice, grains, fruits, and vegetables

are mere feet from meat, dairy, and eggs. We have a choice.

In case you're not up to speed, over 98 percent of all meat, dairy, and eggs produced in the U.S. comes from factory farms. The conditions in these places are truly horrendous. Animals are crammed in spaces so tight they can't turn around. They literally go insane, lying around all day and night in their own feces. They never see sunlight, have their beaks, horns, and genitals cut off (without anesthetic) and are horribly abused by stressed and desensitized farm workers. We kill 10 billion animals for "food" a year in this country—that's over 27 million animals a day. Most of those animals are birds, and all poultry (chickens, turkeys, ducks, and rabbits—yes, rabbits are considered poultry under the law) are excluded from the barely enforced Humane Slaughter Act.

Now, before you start at me with some "humane meat," "happy meat" bullshit, please take note that all animals, whether they are raised in the nastiest of factory farms or grass-fed, free-range, blah blah blah, are all sent to the same slaughterhouses. That's right, your organic steer is being sent to the same hell as a downer cow and will meet the same ghastly end. If you are a "humane meat" consumer, please take a moment and meditate on the whole concept of humane killing... bloody, fearful, struggling, screaming, despairing humane killing. It's never pretty and it certainly isn't "humane."

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VEGANGELICAL, continued from p. 4

There is a video making rounds on YouTube that shows a lone cow shaking in terror as she contemplates walking down the kill chute. She walks forward, then back. Animals can hear and smell the violence and death that awaits them. Their last moments are ones of abject horror and suffering. If you wouldn't condemn your dog or cat to such a

The reality is that veganism couldn't be more different from religion. While religion is based on faith, veganism is based on facts. Animal suffering is not some ethereal concept, it's very real.

fate, how can you pay for others do it to these poor animals?

So. When a vegan is talking to a meat-eater about these issues, he or she is not "preaching," "trying to convert," or any such thing. We're not telling you what to eat. We're telling you what you're eating.

Since animals can't speak a language humans can understand (though I think the screams and terrified moans that fill slaughterhouses should be pretty much universal—all living beings want to live) it's up to us to tell their stories and inform people of the suffering that goes on conveniently out of the public eye.

If, as a meat-eater, being exposed to this reality bothers you, it is not the fault of the vegan. Lashing out or making up endless excuses doesn't

change the stark scientific fact that animals are suffering because of our taste buds. Your neatly packaged chicken breast, all wrapped in pristine plastic, was once part of an animal that felt fear and pain. It's called responsibility and culpability, and we're all to blame.

Now, you may try to argue that eating animals is a matter of personal opinion or choice, but again I'd have to disagree—this is not about your opinion versus my opinion, this is about animal suffering. You can't discuss your "personal choice" of eating animals while leaving animals completely out of the conversation.

Think of it this way, if you were walking down the street and saw someone beating their dog, would you try to do something to stop it? The same principle applies here. Since eating animal foods is a question of want and like versus need, killing a sentient being, when there is absolutely no need—except for someone's pleasure—becomes simply unnecessary and merciless.

And if we say we care about cruelty to animals, then it's time we start caring about all animals. Yes, dogs and cats are companion animals, but in terms of suffering our canine and feline friends feel the same as a pig, cow, chicken, lamb, or turkey. To pick and choose species in terms of whose pain we care about is incredibly hypocritical and inconsistent. Sorry, but if you're eating veal parmigiana or turkey sandwiches, you don't really care about animals. You may care about dogs and cats but you certainly don't care about birds and baby cows.

So, who's the real extremist? The person who tries to stop unnecessary suffering by cutting out animal

products, or the person who says, "I like the way that tastes, so a sentient being needs suffer and die?"

Who's the real fundamentalist? The person who simply speaks the truth about where food comes from, or the person who knowingly chooses to ignore it, listening only to the falsehoods of the meat and dairy clergy? Isn't the latter more akin to choosing to believe the earth is 5,000 years old despite clear evidence to the contrary?

The reality is that veganism couldn't be more different from religion. While religion is based on faith, veganism is based on facts. Animal suffering is not some ethereal concept, it's very real.

All animals deserve to be free from unnecessary pain, fear, and suffering at the hands of humans. How can anything less claim to be humane? Do I want more people to go vegan, is that why I talk and write about it? Of course, but it has nothing to do with me or some group

We're not telling you what to eat. We're telling you what you're eating.

that I belong to. It has to do with the animals who suffer every day so that we can eat them, wear them, and do whatever we want to them simply because we can.

Veganism is the practical response to a social injustice. Instead of vegangelical, the word should be veganological.

To see the original article, visit http://www.huffingtonpost.com/ari-solomon/who-you-callin-vegangelic_b_290582.html.



Paige and Angela ice skating and eating snow in Reno

VEGGIE STAR: Angela Lucero

to shine in and help it grow.

A few years later, my husband and I started practicing yoga and defining our spiritual belief. We learned about the practice of non-harming/non-violence (Ahimsa) that extends to all living beings, including

non-human animals. At the same time, I became active in signing petitions to end the cruelty, mistreatment, exploitation, and murdering of non-domesticated animals. But it didn't add up: Why was I striving to save the lives of gorillas, dolphins, wolves, etc., but not the animals I was still consuming? This was when I became familiar with the term "speciesism." My seed was growing but had only become a bud.

In December 2007, shortly after hosting a Thanksgiving of prime-rib and turkey for my family, our seed of realization had sprouted, and my husband and I made the choice to go vegan. Our last straw was watching the movie *Earthlings*. I could only stomach about 10 to 15 minutes of it... and spent the rest of the evening crying in agony and pain from the suffering I witnessed; my husband was only able to watch 30 minutes of it. Seeing the neglect, abuse, and violence and the murders of other living beings was the last straw.

The next day, we threw out all animal products, and items that contained byproducts left in our refrigerator, freezer, and cabinets.

Continually becoming informed and empowered only brings clarity to what I know is right in my heart. Soon after becoming vegan, my husband and I attended a lecture by Colleen Patrick-Goudreau entitled "From Excus-itarian to Vegetarian: Addressing the Blocks that keep us from Change." It was there that we were motivated to read *The China Study* by T. Colin Campbell and explore the works of John Robbins. It is these mentors and many others who continue to inspire me beyond words.

Living according to my beliefs and values is the best thing I have ever done for myself and the animals. My husband and I have become more active in speaking up for the animals with activism and continue to educate and encourage people to make informed choices.

I want to continue to transcend the paradigm that generates cycles of violence. Thankfully, I do see this happening more and more, every day.

In addition to my own revelation, I have been fortunate to witness my niece Paige have her own epiphany. A few months ago, at the young age of four-and-a-half, she was dining out with her parents and asked her mother what she was eating. Her mom told her that it was the legs of crabs. Paige

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As long as I can remember, I've had extreme admiration and empathy toward animals, both human and non-human. However, I definitely was conditioned to separate the connection between those animals and the food on my plate. Upon growing out of adolescence, a seed of awakening started to sprout. I started to question what we've been told, and to become more educated and informed and aware of the connections our society and culture teach us to ignore.

It was about eight years ago—I was overweight and not excited about the idea of "dieting"—that I decided to take care of myself by learning how to eat for optimum health. More and more, I realized that the Standard American Diet (SAD) was not contributing to my well-being, and I started noticing that it was animal products that were causing tremendous health problems that outweighed their nutritional benefits. The seed was planted, but needed more light

THE CHINA STUDY

by Dr. T. Colin Campbell
and Thomas M. Campbell II

Reviewed by LINDA MIDDLESWORTH

THE CHINA STUDY is the longest study of human nutrition ever conducted. Unlike most nutrition studies, which often subjectively test food ingestion, this body of work, ranging over 27 years, was carried out using non-subjective blood samples to measure health. *The China Study*, done in conjunction with Dr. Junchi Chen at the University of China, and others, produced more than 8,000 statistically significant associations between various dietary factors and disease.

Dr. Campbell is not preaching to you, he is just providing scientific facts. He went into this study truly believing that a balanced diet that included dairy and fish protein would benefit himself and others. He was shocked to find that eating

dairy and fish was not beneficial to human health.

Dr. Campbell does not tell you what to eat, but he does want you to make informed decisions about your choices. He wants you to understand the shocking results of his work, which show that we can actually stop and/or reverse chronic diseases by the food choices we make.

As you will see, animal foods, including all dairy, eggs, fish, goat, pig, cow, or chicken, turkey, etc., promote heart disease, cancer, obesity, diabetes, digestive disorders, and autoimmune diseases such as multiple sclerosis, rheumatoid arthritis, etc.

The best news here, however, is that we have hope now because by eating a whole-foods, low-fat, plant-based diet, we can prevent and stop the progression of most

of these chronic diseases of affluence! To me, Dr. Campbell is an obvious choice to receive a Nobel Prize!

I have seen people stop cancer progression using only plant foods and lower cholesterol 100 points using only plant foods. I have seen people lose 80 to 100 pounds, too.

So, if you are tired of being sick or know someone who is living a life on the sick side instead of the well side, please read this book. It could save your life or that of someone you know.

Linda Middlesworth, SVS President, is a Certified Personal Trainer and is in training to receive a Cornell University Nutrition Certification.

VEGGIE STAR, continued from p. 6

replied in disbelief, “Why would you eat its legs?” She was appalled. After thoroughly questioning every item on the table—and my sister explaining to her that they were eating animals—she made the connection and decided that she did not want to eat animals. My sister realized that Paige actually has given this feeling some thought, so hasn’t conditioned her to separate that connection. Instead, my sister honors her daughter’s opinion and ensures, as best as possible, that my niece does not consume animals.

Paige continues her stance and has also become the-little-activist-that-could. She recently told my sister “Mom, I wanna write on a piece of paper ‘please don’t eat any animals’ and put it in everybody’s mailboxes. How do we put it in everybody’s mailboxes, Mom?”

A Limited Diet?

“Is the vegetarian more limited in choice than the meat eater?” Of the more than 2 million species of animals in the world, only about 250 are domesticated and eaten. Of mammals and poultry, only nine species make up 100 percent of the world’s meat protein: cattle, chickens, ducks, geese, goats, pigs, sheep, turkeys, and water buffaloes. And of these, beef and pork—in approximately equal amounts—make up 90 percent of the world’s nonpoultry production.

“There are roughly 250,000 vegetable and fruit species. Of these, 600 are cultivated and eaten, including fifty different vegetables, two dozen varieties of beans and peas, twenty different fruits, nine varieties of grain, and more than a dozen types of seeds and nuts. Many of these hundreds of nourishing plant foods are relatively inexpensive and plentiful throughout the United States and other Western nations. The most common problem surrounding vegetarianism, then, isn’t a lack of resources but a lack of understanding.”

—Vic Sussman, *The Vegetarian Alternative: A Guide to a Healthful and Humane Diet*
©1978, Rodale Press

E. coli Path Shows Flaws in Beef Inspection

MICHAEL MOSS

Reprinted from the October 3, 2009 New York Times

Stephanie Smith, a children's dance instructor, thought she had a stomach virus. The aches and cramping were tolerable that first day, and she finished her classes.

Then her diarrhea turned bloody. Her kidneys shut down. Seizures knocked her unconscious. The convulsions grew so relentless that doctors had to put her in a coma for nine weeks. When she emerged, she could no longer walk. The affliction had ravaged her nervous system and left her paralyzed.

The ingredients—ground together at a plant in Wisconsin— came from slaughterhouses in Nebraska, Texas, and Uruguay, and from a South Dakota company that processes fatty trimmings and treats them with ammonia to kill bacteria.

Ms. Smith, 22, was found to have a severe form of food-borne illness caused by *E. coli*, which Minnesota officials traced to the hamburger that her mother had grilled for their Sunday dinner in early fall 2007.

"I ask myself every day, 'Why me?' and 'Why from a hamburger?'" Ms. Smith said. In the simplest terms, she ran out of luck in a food-safety game of chance whose rules and risks are not widely known.

Meat companies and grocers have been barred from selling ground beef tainted by the virulent strain of *E. coli*

known as O157:H7 since 1994, after an outbreak at Jack in the Box restaurants left four children dead. Yet tens of thousands of people are still sickened annually by this pathogen, federal health officials estimate, with hamburger being the biggest culprit. Ground beef has been blamed for 16 outbreaks in the last three years alone, including the one that left Ms. Smith paralyzed from the waist down. This summer, contamination led to the recall of beef from nearly 3,000 grocers in 41 states.

Ms. Smith's reaction to the virulent strain of *E. coli* was extreme, but tracing the story of her burger, through interviews and government and corporate records obtained by *The New York Times*, shows why eating ground beef is still a gamble. Neither the system meant to make the meat safe, nor the meat itself, is what consumers have been led to believe.

Ground beef is usually not simply a chunk of meat run through a grinder. Instead, records and interviews show, a single portion of hamburger meat is often an amalgam of various grades of meat from different parts of cows and even from different slaughterhouses. These cuts of meat are particularly vulnerable to *E. coli* contamination, food experts and officials say. Despite this, there is no federal requirement for grinders to test their ingredients for the pathogen.

The frozen hamburgers that the Smiths ate, which were made by the food giant Cargill, were labeled "American Chef's Selection Angus Beef Patties." Yet confidential grinding logs and other Cargill records show that the hamburgers were made from a mix of slaughterhouse trimmings and a mash-like product derived from scraps that were ground together at a plant in Wisconsin. The ingredients came from

slaughterhouses in Nebraska, Texas, and Uruguay, and from a South Dakota company that processes fatty trimmings and treats them with ammonia to kill bacteria.

Using a combination of sources—a practice followed by most large producers of fresh and packaged hamburger—allowed Cargill to spend about 25 percent less than it would have for cuts of whole meat.

Those low-grade ingredients are cut from areas of the cow that are more likely to have had contact with feces, which carries *E. coli*, industry research shows. Yet Cargill, like most meat companies, relies on its suppliers to check for the bacteria and does its own testing only after the ingredients are ground together. The United

This summer, contamination led to the recall of beef from nearly 3,000 grocers in 41 states.

States Department of Agriculture (USDA), which allows grinders to devise their own safety plans, has encouraged them to test ingredients first as a way of increasing the chance of finding contamination.

Unwritten agreements between some companies appear to stand in the way of ingredient testing. Many big slaughterhouses will sell only to grinders who agree not to test their shipments for *E. coli*, according to officials at two large grinding companies. Slaughterhouses fear that one grinder's discovery of *E. coli* will set off a recall of ingredients they sold to others.

"Ground beef is not a completely safe product," said Dr. Jeffrey Bender, a food safety expert at the University

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of Minnesota who helped develop systems for tracing E. coli contamination. He said that while outbreaks had been on the decline, “unfortunately it looks like we are going a bit in the opposite direction.”

Food scientists have registered increasing concern about the virulence of this pathogen since only a few stray cells can make someone sick, and they warn that federal guidance to cook meat thoroughly and to wash up afterward is not sufficient. A test by *The Times* found that the safe handling instructions are not enough to prevent the bacteria from spreading in the kitchen.

Cargill, whose \$116.6 billion in revenues last year made it the country’s largest private company, declined requests to interview company officials or visit its facilities. “Cargill is not in a position to answer your specific questions, other than to state that we are committed to continuous improvement in the area of food safety,” the company said, citing continuing litigation.

The meat industry treats much of its practices and the ingredients in ground beef as trade secrets. While USDA has inspectors posted in plants and has access to production records, it also guards those secrets. Federal records released by the department through the Freedom of Information Act blacked out details of Cargill’s grinding operation that could be learned only through copies of the documents obtained from other sources. Those documents illustrate the restrained approach to enforcement by a department whose missions include ensuring meat safety and promoting agriculture markets.

Within weeks of the 2007 Cargill outbreak, USDA officials swept across the country, conducting spot checks at 224 meat plants to assess their efforts to combat E. coli. Although inspectors had been monitoring these plants all along, officials found serious

problems at 55 that were failing to follow their own safety plans.

“Every time we look, we find out that things are not what we hoped they would be,” said Loren D. Lange, an executive associate in USDA’s food safety division.

Eating ground beef is still a gamble.

In the weeks before Ms. Smith’s patty was made, federal inspectors had repeatedly found that Cargill was violating its own safety procedures in handling ground beef, but they imposed no fines or sanctions, records show. After the outbreak, the department threatened to withhold the seal of approval that declares “U.S. Inspected and Passed by the Department of Agriculture.”

In the end, though, the agency accepted Cargill’s proposal to increase its scrutiny of suppliers. That agreement came early last year after contentious negotiations, records show. When Cargill defended its safety system and initially resisted making some changes, an agency official

Food scientists warn that federal guidance to cook meat thoroughly and to wash up afterward is not sufficient.

wrote back: “How is food safety not the ultimate issue?”

The Risk. On Aug. 16, 2007, the day Ms. Smith’s hamburger was made, the No. 3 grinder at the Cargill plant in Butler, Wis., started up at 6:50 A.M. The largest ingredient was beef trimmings known as “50/50”—half fat, half meat—that cost about 60 cents a pound, making them the cheapest component.

Cargill bought these trimmings—fatty edges sliced from better cuts of

meat—from Greater Omaha Packing, where some 2,600 cattle are slaughtered daily and processed in a plant the size of four football fields.

As with other slaughterhouses, the potential for contamination is present every step of the way, according to workers and federal inspectors. The cattle often arrive with smears of feedlot feces that harbor the E. coli pathogen, and the hide must be removed carefully to keep it off the meat. This is especially critical for trimmings sliced from the outer surface of the carcass.

Federal inspectors based at the plant are supposed to monitor the hide removal, but much can go wrong. Workers slicing away the hide can inadvertently spread feces to the meat, and large clamps that hold the hide during processing sometimes slip and smear the meat with feces, the workers and inspectors say.

Greater Omaha vacuums and washes carcasses with hot water and lactic acid before sending them to the cutting floor. But these safeguards are not foolproof.

“As the trimmings are going down the processing line into combos or boxes, no one is inspecting every single piece,” said one federal inspector who monitored Greater Omaha and requested anonymity because he was not authorized to speak publicly.

The E. coli risk is also present at the gutting station, where intestines are removed, the inspector said.

Every five seconds or so, half of a carcass moves into the meat-cutting side of the slaughterhouse, where trimmers said they could keep up with the flow unless they spot any remaining feces.

“We would step in and stop the line, and do whatever you do to take it off,” said Esley Adams, a former supervisor who said he was fired this summer after 16 years following a dispute over sick leave. “But that doesn’t mean everything was caught.”

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Two current employees said the flow of carcasses keeps up its torrid pace even when trimmers get re-assigned, which increases pressure on workers. To protest one such episode, the employees said, dozens of workers walked off the job for a few hours earlier this year. Last year, workers sued Greater Omaha, alleging that they were not paid for the time they need to clean contaminants off their knives and other gear before and after their shifts. The company is contesting the lawsuit.

Greater Omaha did not respond to repeated requests to interview company officials. In a statement, a company official said Greater Omaha had a “reputation for embracing new food safety technology and utilizing science to make the safest product possible.”

The Trimmings. In making hamburger meat, grinders aim for a specific fat content—26.6 percent in the lot that Ms. Smith’s patty came from, company records show. To offset Greater Omaha’s 50/50 trimmings, Cargill added leaner material from three other suppliers.

Records show that some came from a Texas slaughterhouse, Lone Star Beef Processors, which specializes in dairy cows and bulls too old to be fattened in feedlots. In a form letter dated two days before Ms. Smith’s patty was made, Lone Star recounted for Cargill its various safety measures but warned “to this date there is no guarantee for pathogen-free raw material and we would like to stress the importance of proper handling of all raw products.”

Ms. Smith’s burger also contained trimmings from a slaughterhouse in Uruguay, where government officials insist that they have never found *E. coli* O157:H7 in meat. Yet audits of Uruguay’s meat operations conducted by the USDA have found sanitation problems, including improper testing for the pathogen. Dr. Hector J. Lazaneo, a meat safety official in

Uruguay, said the problems were corrected immediately. “Everything is fine, finally,” he said. “That is the reason we are exporting.”

Cargill’s final source was a supplier that turns fatty trimmings into what it calls “fine lean textured beef.” The company, Beef Products Inc., said it bought meat that averages between 50 percent and 70 percent fat, including “any small pieces of fat derived from the normal breakdown of the beef carcass.” It warms the trimmings, removes the fat in a centrifuge and treats the remaining product with ammonia to kill *E. coli*.

Workers sued Greater Omaha alleging that they were not paid for the time they need to clean off their knives and other gear before and after their shifts.

With seven million pounds produced each week, the company’s product is widely used in hamburger meat sold by grocers and fast-food restaurants and served in the federal school lunch program. Ten percent of Ms. Smith’s burger came from Beef Products, which charged Cargill about \$1.20 per pound, or 20 cents less than the lean trimmings in the burger, billing records show.

An Iowa State University study financed by Beef Products found that ammonia reduces *E. coli* to levels that cannot be detected. The Department of Agriculture accepted the research as proof that the treatment was effective and safe. And Cargill told the agency after the outbreak that it had ruled out Beef Products as the possible source of contamination.

But federal school lunch officials found *E. coli* in Beef Products material in 2006 and 2008 and again in August, and stopped it from going to

schools, according to Agriculture Department records and interviews. A Beef Products official, Richard Jochum, said that last year’s contamination stemmed from a “minor change in our process,” which the company adjusted. The company did not respond to questions about the latest finding.

In combining the ingredients, Cargill was following a common industry practice of mixing trim from various suppliers to hit the desired fat content for the least money, industry officials said.

In all, the ingredients for Ms. Smith’s burger cost Cargill about \$1 a pound, company records show, or about 30 cents less than industry experts say it would cost for ground beef made from whole cuts of meat.

Ground beef sold by most grocers is made from a blend of ingredients, industry officials said. Agriculture Department regulations also allow hamburger meat labeled ground chuck or sirloin to contain trimmings from those parts of the cow. At a chain like Publix Super Markets, customers who want hamburger made from whole cuts of meat have to buy a steak and have it specially ground, said a Publix spokeswoman, Maria Brous, or buy a product like Bubba Burgers, which boasts on its labeling, “100 percent whole muscle means no trimmings.”

To finish off the Smiths’ ground beef, Cargill added bread crumbs and spices, fashioned it into patties, froze them and packed them 18 to a carton.

The listed ingredients revealed little of how the meat was made. There was just one meat product listed: “Beef.”

Tension Over Testing. As it fed ingredients into its grinders, Cargill watched for some unwanted elements. Using metal detectors, workers snagged stray nails and metal hooks that could damage the grinders, then warned suppliers to make sure it did not happen again.

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But when it came to *E. coli* O157:H7, Cargill did not screen the ingredients and only tested once the grinding was done. The potential pitfall of this practice surfaced just weeks before Ms. Smith's patty was made. A company spot check in May 2007 found *E. coli* in finished hamburger, which Cargill disclosed to investigators in the wake of the October outbreak. But Cargill told them it could not determine which supplier had shipped the tainted meat since the ingredients had already been mixed together.

"Our finished ground products typically contain raw materials from numerous suppliers," Dr. Angela Siemens, the technical services vice president for Cargill's meat division, wrote to the USDA "Consequently, it is not possible to implicate a specific supplier without first observing a pattern of potential contamination."

Testing has been a point of contention since the 1994 ban on selling ground beef contaminated with *E. coli* O157:H7 was imposed. The department moved to require some bacterial testing of ground beef, but the industry argued that the cost would unfairly burden small producers, industry officials said. The Agriculture Department opted to carry out its own tests for *E. coli*, but it acknowledges that its 15,000 spot checks a year at thousands of meat plants and groceries nationwide is not meant to be comprehensive. Many slaughterhouses and processors have voluntarily adopted testing regimes, yet they vary greatly in scope from plant to plant.

The retail giant Costco is one of the few big producers that tests trimmings for *E. coli* before grinding, a practice it adopted after a New York woman was sickened in 1998 by its hamburger meat, prompting a recall.

Craig Wilson, Costco's food safety director, said the company decided it could not rely on its suppliers alone.

"It's incumbent upon us," he said. "If you say, 'Craig, this is what we've done,' I should be able to go, 'Cool, I believe you.' But I'm going to check."

Costco said it had found *E. coli* in foreign and domestic beef trimmings and pressured suppliers to fix the problem. But even Costco, with its huge buying power, said it had met resistance from some big slaughterhouses. "Tyson will not supply us," Mr. Wilson said. "They don't want us to test."

A Tyson spokesman, Gary Mickelson, would not respond to Costco's accusation, but said, "We do not and cannot" prohibit grinders from testing

"I have to look at the entire industry, not just what is best for public health," Dr. Peterson said.

ingredients. He added that since Tyson tests samples of its trimmings, "we don't believe secondary testing by grinders is a necessity."

The food safety officer at American Foodservice, which grinds 365 million pounds of hamburger a year, said it stopped testing trimmings a decade ago because of resistance from slaughterhouses. "They would not sell to us," said Timothy P. Biela, the officer. "If I test and it's positive, I put them in a regulatory situation. One, I have to tell the government, and two, the government will trace it back to them. So we don't do that."

The surge in outbreaks since 2007 has led to finger-pointing within the industry.

Dennis R. Johnson, a lobbyist for the largest meat processors, has said that not all slaughterhouses are looking hard enough for contamination. He told USDA officials last fall that those with aggressive testing programs typically find *E. coli* in as much as 1 percent to 2 percent of their trimmings, yet some slaughterhouses

implicated in outbreaks had failed to find any.

At the same time, the meat processing industry has resisted taking the onus on itself. An Agriculture Department survey of more than 2,000 plants taken after the Cargill outbreak showed that half of the grinders did not test their finished ground beef for *E. coli*; only 6 percent said they tested incoming ingredients at least four times a year.

In October 2007, the agency issued a notice recommending that processors conduct at least a few tests a year to verify the testing done by slaughterhouses. But after resistance from the industry, the department allowed suppliers to run the verification checks on their own operations.

In August 2008, the USDA issued a draft guideline again urging, but not ordering, processors to test ingredients before grinding. "Optimally, every production lot should be sampled and tested before leaving the supplier and again before use at the receiver," the draft guideline said.

But the department received critical comments on the guideline, which has not been made official. Industry officials said that the cost of testing could unfairly burden small processors and that slaughterhouses already test. In an October 2008 letter to the department, the American Association of Meat Processors said the proposed guideline departed from USDA's strategy of allowing companies to devise their own safety programs, "thus returning to more of the agency's 'command and control' mind-set."

Dr. Kenneth Petersen, an assistant administrator with the department's Food Safety and Inspection Service, said that the department could mandate testing, but that it needed to consider the impact on companies as well as consumers. "I have to look at the entire industry, not just what is best for public health," Dr. Petersen said.

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Tracing the Illness. The Smiths were slow to suspect the hamburger. Ms. Smith ate a mostly vegetarian diet, and when she grew increasingly ill, her mother, Sharon, thought the cause might be spinach, which had been tied to a recent *E. coli* outbreak.

Five days after the family's Sunday dinner, Ms. Smith was admitted to St. Cloud Hospital in excruciating pain. "I've had women tell me that *E. coli* is more painful than childbirth," said Dr. Phillip I. Tarr, a pathogen expert at Washington University in St. Louis.

The vast majority of *E. coli* illnesses resolve themselves without complications, according to the Centers for Disease Control and Prevention. Five percent to 10 percent develop into a condition called hemolytic uremic syndrome, which can affect kidney function. While most patients recover, in the worst cases, like Ms. Smith's, the toxin in *E. coli* O157:H7 penetrates the colon wall, damaging blood vessels and causing clots that can lead to seizures.

To control Ms. Smith's seizures, doctors put her in a coma and flew her to the Mayo Clinic, where doctors worked to save her.

"They didn't even think her brain would work because of the seizing," her mother said. "Thanksgiving Day, I was sitting there holding her hand when a group of doctors came in, and one looked at me and just walked away, with nothing good to say. And I said, 'Oh my God, maybe this is my last Thanksgiving with her,' and I stayed and prayed."

Ms. Smith's illness was linked to the hamburger only by chance. Her aunt still had some of the frozen patties, and state health officials found that they were contaminated with a powerful strain of *E. coli* that was genetically identical to the pathogen that had sickened other Minnesotans.

Dr. Kirk Smith, who runs the state's food-borne illness outbreak group and is not related to Ms. Smith,

was quick to finger the source. A 4-year-old had fallen ill three weeks earlier, followed by her year-old brother and two more children, state records show. Like Ms. Smith, the others had eaten Cargill patties bought at Sam's Club, a division of Wal-Mart.

Moreover, state officials discovered that the hamburgers were made on the same day, Aug. 16, 2007, shortly before noon. The time stamp on the Smiths' box of patties was 11:58.

On Friday, Oct. 5, 2007, a Minnesota Health Department warning led local news broadcasts. "We didn't want people grilling these things over the weekend," Dr. Smith said. "I'm positive we prevented illnesses. People sent us dozens of cartons with patties left. It was pretty contaminated stuff."

Half of the grinders did not test their finished ground beef for *E. coli*; only 6 percent said they tested incoming ingredients at least four times a year.

Eventually, health officials tied 11 cases of illness in Minnesota to the Cargill outbreak, and altogether, federal health officials estimate that the outbreak sickened 940 people. Four of the 11 Minnesota victims developed hemolytic uremic syndrome—an unusually high rate of serious complications.

In the wake of the outbreak, the USDA reminded consumers on its Web site that hamburgers had to be cooked to 160° degrees to be sure any *E. coli* is killed and urged them to use a thermometer to check the temperature. This reinforced Sharon Smith's concern that she had sickened her daughter by not cooking the hamburger thoroughly.

But the pathogen is so powerful that her illness could have started with

just a few cells left on a counter. "In a warm kitchen, *E. coli* cells will double every 45 minutes," said Dr. Mansour Samadpour, a microbiologist who runs IEH Laboratories in Seattle, one of the meat industry's largest testing firms.

With help from his laboratories, *The Times* prepared three pounds of ground beef dosed with a strain of *E. coli* that is nonharmful but acts in many ways like O157:H7. Although the safety instructions on the package were followed, *E. coli* remained on the cutting board even after it was washed with soap. A towel picked up large amounts of bacteria from the meat.

Dr. James Marsden, a meat safety expert at Kansas State University and senior science adviser for the North American Meat Processors Association, said USDA needed to issue better guidance on avoiding cross-contamination, like urging people to use bleach to sterilize cutting boards. "Even if you are a scientist, much less a housewife with a child, it's very difficult," Dr. Marsden said.

Told of *The Times*'s test, Jerold R. Mande, the deputy undersecretary for food safety at the USDA, said he planned to "look very carefully at the labels that we oversee."

"They need to provide the right information to people," Mr. Mande said, "in a way that is readable and actionable."

Dead Ends. With Ms. Smith lying comatose in the hospital and others ill around the country, Cargill announced on Oct. 6, 2007, that it was recalling 844,812 pounds of patties. The mix of ingredients in the burgers made it almost impossible for either federal officials or Cargill to trace the contamination to a specific slaughterhouse. Yet after the outbreak, Cargill had new incentives to find out which supplier had sent the tainted meat—multimillion-dollar claims from people who got sick.

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Shawn K. Stevens, a lawyer in Milwaukee working for Cargill, began investigating. Sifting through state health department records from around the nation, Mr. Stevens found the case of a young girl in Hawaii stricken with the same E. coli found in the Cargill patties. But instead of a Cargill burger, she had eaten raw minced beef at a Japanese restaurant that Mr. Stevens said he traced through a distributor to Greater Omaha.

“Potentially, it could let Cargill shift all the responsibility,” Mr. Stevens said. In March, he sent his findings to William Marler, a lawyer in Seattle who specializes in food-borne disease cases and is handling the claims against Cargill.

“Most of the time, in these outbreaks, it’s not unusual when I point the finger at somebody, they try to point the finger at somebody else,” Mr. Marler said. But he said Mr. Stevens’s finding “doesn’t rise to the level of proof that I need” to sue Greater Omaha.

It is unclear whether Cargill presented the Hawaii findings to Greater Omaha, since neither company would comment on the matter. In December 2007, in a move that Greater Omaha said was unrelated to the outbreak, the slaughterhouse informed Cargill that it had taken 16 “corrective actions” to better protect consumers from E. coli “as we strive to live up to the performance standards required in the continuation of supplier relationship with Cargill.”

Those changes included better monitoring of the production line, more robust testing for E. coli, intensified plant sanitation and added employee training.

The USDA efforts to find the ultimate source of the contamination went nowhere. Officials examined production records of Cargill’s three domestic suppliers, but they yielded no clues. USDA contacted Uruguayan

officials, who said they found nothing amiss in the slaughterhouse there.

In examining Cargill, investigators discovered that their own inspectors lodged complaints about unsanitary conditions at the plant in the weeks before the outbreak, but that they had failed to set off any alarms within the department. Inspectors had found “large amounts of patties on the floor,” grinders that were gnarly with old bits of meat, and a worker who routinely dumped inedible meat on the floor close to a production line.

Although none were likely to have caused the contamination, federal officials said the conditions could have exacerbated the spread of bacteria. Cargill vowed to correct the problems. Dr. Petersen, the federal food safety official, said the department was working to make sure violations are tracked so they can be used “in real time to take action.”

The USDA found that Cargill had not followed its own safety program for controlling E. coli. For example, Cargill was supposed to obtain a certificate from each supplier showing that their tests had found no E. coli. But Cargill did not have a certificate for the Uruguayan trimmings used on the day it made the burgers that sickened Ms. Smith and others.

After four months of negotiations, Cargill agreed to increase its scrutiny of suppliers and their testing, including audits and periodic checks to determine the accuracy of their laboratories.

A recent industry test in which spiked samples of meat were sent to independent laboratories used by food companies found that some missed the E. coli in as many as 80 percent of the samples.

Cargill also said it would notify suppliers whenever it found E. coli in finished ground beef, so they could check their facilities. It also agreed to increase testing of finished ground beef, according to a USDA official familiar with the company’s

operations, but would not test incoming ingredients.

Looking to the future. The spate of outbreaks in the last 3 years has increased pressure on the Agriculture Department and the industry.

James H. Hodges, executive vice president of the American Meat Institute, a trade association, said that while the outbreaks were disconcerting, they followed several years during which there were fewer incidents. “Are we perfect?” he said. “No. But what we have done is to show some continual improvement.”

Dr. Petersen, the USDA official, said the department had adopted additional procedures, including enhanced testing at slaughterhouses implicated in outbreaks and better training for investigators.

“We are not standing still when it comes to E. coli,” Dr. Petersen said.

The department has held a series of meetings since the recent outbreaks, soliciting ideas from all quarters. Dr. Samadpour, the laboratory owner, has said that “we can make hamburger safe,” but that in addition to enhanced testing, it will take an aggressive use of measures like meat rinses and safety audits by qualified experts.

At these sessions, Felicia Nestor, a senior policy analyst with the consumer group Food and Water Watch, has urged the government to redouble its effort to track outbreaks back to slaughterhouses. “They are the source of the problem,” Ms. Nestor said.

For Ms. Smith, the road ahead is challenging. She is living at her mother’s home in Cold Spring, Minn. She spends a lot of her time in physical therapy, which is being paid for by Cargill in anticipation of a legal claim, according to Mr. Marler. Her kidneys are at high risk of failure. She is struggling to regain some basic life skills and deal with the anger that sometimes envelops her. Despite her determination, doctors say, she will most likely never walk again

Beyond the sheer number of illnesses linked to factory farming, we know that factory farms are contributing to the growth of antimicrobial-resistant pathogens simply because these farms consume so many antimicrobials.

We have to go to a doctor to obtain antibiotics and other antimicrobials as a public-health measure to limit the number of such drugs being taken by humans. We accept this inconvenience because of its medical importance. Microbes eventually adapt to antimicrobials, and we want to make sure it is the truly sick who benefit from the finite number of uses any antimicrobial will have before the microbes learn how to survive it.

On a typical factory farm, drugs are fed to animals with every meal. In poultry factory farms, they almost have to be. It's a perfect storm: The animals have been bred to such extremes that sickness is inevitable, and the living conditions promote illness.

Industry saw this problem from the beginning, but rather than accept less-productive animals, it compensated for the animals' compromised immunity with drugs. As a result, farmed animals are fed antibiotics nontherapeutically: that is, before they get sick.

In the United States, about 3 million pounds of antibiotics are given to humans each year, but a whopping 17.8 million pounds are fed to livestock—at least, that is what the industry claims.

The Union of Concerned Scientists estimated that the industry underreported its antibiotic use by at least 40 percent.

The group calculated that 24.6 million pounds of antibiotics were

fed to chickens, pigs, and other farmed animals, counting only nontherapeutic uses. And that was in 2001. In other words, for every dose of antibiotics taken by a sick human, eight doses are given to a “healthy” animal.

The implications for creating drug-resistant pathogens are quite straightforward. Study after study has shown that antimicrobial resistance follows quickly on the heels of the introduction of new drugs on factory farms.

... the next time a friend has a sudden “flu,” ask a few questions Your friend didn’t “catch a bug” so much as eat a bug. And in all likelihood, that bug was created by factory farming.

For example, in 1995, when the Food and Drug Administration approved fluoroquinolones—such as Cipro—for use in chickens against the protest of the CDC, the percentage of bacteria resistant to this powerful new class of antibiotics rose from almost zero to 18 percent by 2002.

A broader study in the *New England Journal of Medicine* showed an eightfold increase in antimicrobial resistance from 1992 to 1997 and linked this increase to the use of antimicrobials in farmed chickens. As far back as the late 1960s, scientists have warned against the nontherapeutic use of antibiotics in farmed-animal feed.

Today, institutions as diverse as the American Medical Association; the CDC; the Institute

of Medicine, a division of the National Academy of Sciences; and the World Health Organization (WHO) have linked nontherapeutic antibiotic use on factory farms with increased antimicrobial resistance and called for a ban.

Still, the factory farm industry has effectively opposed such a ban in the United States. And, unsurprisingly, the limited bans in other countries are only a limited solution.

There is a glaring reason that the necessary total ban on nontherapeutic use of antibiotics hasn't happened: The factory farm industry, allied with the pharmaceutical industry, has more power than public-health professionals.

What is the source of the industry's immense power? We give it to them. We have chosen, unwittingly, to fund this industry on a massive scale by eating factory-farmed animal products. And we do so daily.

The same conditions that lead at least 76 million Americans to become ill from their food annually and that promote antimicrobial resistance also contribute to the risk of a pandemic.

At a remarkable 2004 conference, the Food and Agriculture Organization of the United Nations, WHO, and the World Organization for Animal Health (OIE) put their tremendous resources together to evaluate the available information on “emerging zoonotic diseases” or those spread by humans-to-animals and animals-to-humans.

At the time of the conference, H5N1 and SARS topped the list of feared emerging zoonotic diseases. Today, the H1N1 swine flu would be the pathogen enemy No. 1.

The scientists distinguished between “primary risk factors” for zoonotic diseases and mere “amplification risk factors,” which affect only the rate at which a disease spreads. Their examples of primary risk factors were “change to an agricultural production system or consumption patterns.”

What particular agricultural and consumer changes did they have in mind? First in a list of four main risk factors was “increasing demand for animal protein,” which is a way of saying that demand for meat, eggs, and dairy is a “primary factor” influencing emerging zoonotic diseases. This demand for animal products, the report continues, leads to “changes in farming practices.” Lest we have any confusion about the “changes” that are relevant, poultry factory farms are singled out.

Similar conclusions were reached by the Council for Agricultural Science and Technology, which brought together industry experts and experts from the WHO, OIE and U.S. Department of Agriculture. Their 2005 report argued that a major impact of factory farming is “the rapid selection and amplification of pathogens that arise from a virulent ancestor (frequently by subtle mutation), thus there is increasing risk for disease entrance and/or dissemination.”

Breeding genetically uniform and sickness-prone birds in the overcrowded, stressful, feces-infested, and artificially lit conditions of factory farms promotes the growth and mutation of pathogens. The “cost of increased efficiency,” the report concludes, is increased global risk for diseases.

Our choice is simple: cheap chicken or our health.

Today, the factory farm-pandemic link couldn’t be more lucid. The primary ancestor of the recent H1N1 swine flu outbreak originated at a hog factory farm in America’s most hog-factory-rich state, North Carolina, and then quickly spread throughout the Americas.

It was in these factory farms that scientists saw, for the first time, viruses that combined genetic material from bird, pig and human viruses. Scientists at Columbia and Princeton Universities have actually been able to trace six of the eight genetic segments of the most feared virus in

the world directly to U.S. factory farms.

Perhaps in the back of our minds we already understand, without all the science, that something terribly wrong is happening. We know that it cannot possibly be healthy to raise such grotesque animals in such grossly unnatural conditions. We know that if someone offers to show us a film on how our meat is produced, it will be a horror film.

We perhaps know more than we care to admit, keeping it down in the dark places of our memory—disavowed. When we eat factory-farmed meat, we live on tortured flesh. Increasingly, those sick animals are making us sick.

Recipe

Vegan Nacho Cheese Sauce

Just add some jalapeño wheels and you’ll feel like you are back at the roller rink!

Ingredients

- ¼ cup raw cashews
- 1½ cups cold water
- 2 ounces pimientos (half of a 4-oz jar)
- 2 tablespoons cornstarch
- 2 tablespoons nutritional yeast flakes
- 1 tablespoon lemon juice
- ½–1 teaspoon salt
- 1 (4-oz) can diced green chilies (optional)

Directions

1. *Rinse cashews with hot water while combining the remaining ingredients (except chiles) in a blender.*
2. *Add cashews to blender and process on high for 1–2 minutes.*
3. *Cook in a sauce pan over medium heat, stirring constantly, until thick.*
4. *Add chiles and serve or use in other recipes that call for cheese sauce.*





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Recipe

Tempeh Broccoli Sauté

Illustration: FCIT (<http://etc.usf.edu/clipart>)

FROM *The Cancer Survivor's Guide: Foods that Help You Fight Back!*—A NEW BOOK FROM *THE CANCER PROJECT*

This dish is a healthy entrée to add your Thanksgiving holiday meal. Tempeh is made from fermented soybeans—a protein-rich plant food. In just one serving of this recipe, there are 20 grams of protein. The broccoli in this recipe adds calcium.

Makes 4 servings

1 10-oz package tempeh (any variety)
2 broccoli stalks, chopped, or 2 bags frozen broccoli florets
1 small onion, finely diced
1 red bell pepper, seeded and diced
1 tablespoon minced garlic
1 tablespoon minced fresh ginger, or 1 teaspoon ground ginger
¼ cup vegetable broth
1 tablespoon soy sauce or tamari
2 cups cooked couscous or cooked brown rice

Chop tempeh into ½-inch pieces and steam for 10 minutes. Discard cooking water.

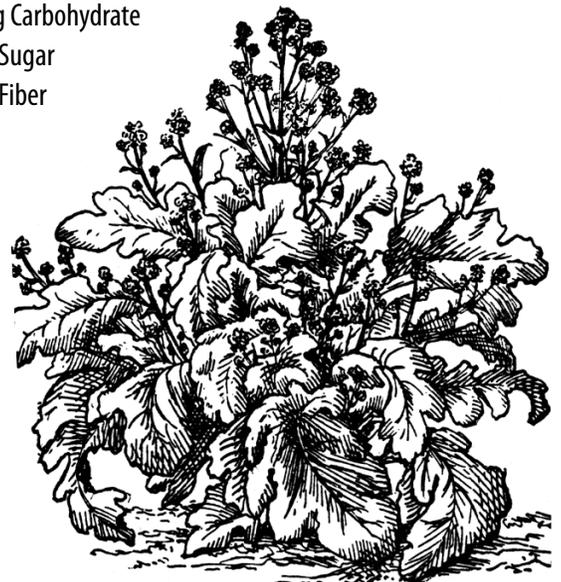
Sauté tempeh, broccoli, onion, bell pepper, garlic, and ginger in broth over medium-high heat until tempeh is lightly browned.

Add soy sauce or tamari at the last moment. Serve over grain of choice.

Allow leftovers to cool before covering and refrigerating. This dish will keep two to three days in the refrigerator.

Nutrition Information Per serving:

285 Calories	312 mg Sodium
8.1 g Fat	127 mg Calcium
1.7 g Saturated fat	3.1 mg Iron
25.5% Calories from fat	86.4 mg Vitamin C
0 mg Cholesterol	1,293 mcg Beta-Carotene
20.2 g Protein	
37.2 g Carbohydrate	
5.8 g Sugar	
7.1 g Fiber	



For more Thanksgiving recipes, go to: <http://cancerproject.org/recipes/thanksgiving/2009.php>.