



# OUR TIMES

FOOD & HUNGER IN OUR WORLD

MAY 2012

## KINGS OF CORN

BY SAM HAYDEN AND WILLEM PFEIL

“People who grew up eating like we do are basically made out of corn,” proclaimed Ian Cheney and Curt Ellis in the award-winning documentary, *King Corn*. And they don’t mean the home-style corn on the cob; they mean corn syrup, corn-fed meat, and other types of processed corn. This wonderful documentary demonstrates how pervasive corn is in the American food system, and how corn has become integrated into our bodies.

Ian and Curt were interested in finding out what their diet really consisted of. They figured out that their diet was made up of mostly corn. These two men moved to the town of Greene, Iowa to find out “How an acre of corn could get from a field in Iowa into our hair”. Coincidentally, both these friends had

relatives from this small town. They discover how their great grandparents were involved in the agricultural revolution; making the first tractor called Old Reliable. They discover that by moving to Iowa and saying they will plant an acre of corn, they earn \$28.00 from the government. They also find out how easy it is to farm corn after the agricultural revolution. It used to be that an acre would produce 40 bushels, but now it produces 200 bushels. Now corn tastes terrible and is a raw material to be processed by large corporations away from the farm. In fact, 20% goes to ethanol, 40% goes to cattle feed, 20% is turned into artificial sweeteners and 20% is put to other uses. Ian and Curt could not follow the exact corn

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## FOOD SHELF HEROES

BY AMELIA TRAVERS AND JESSICA JOHNSON

Did you know that 1 in 6 Americans struggle with hunger, including many children? (Feeding America) Every night there are children who go to bed having eaten barely enough to stay healthy. This problem has even reached our home town of, Sharon, VT. Luckily, the Sharon Food Shelf helps families so they don’t have to go to bed hungry.

The Sharon Food Shelf first opened in 1984, and ever since then, Leon and Carol Sheldon have worked as its coordinators. They do many jobs, but they say the most important one is working for the food shelf. They are always helping out the community because they enjoy helping people and love seeing a smile on people’s faces. They help about 18 families a week; almost a third of the people they service are children. The food shelf provides food to

up to 2,088 people each year, which equals about \$6,412.74 annually. The number of people who come into the food shelf has been increasing each year (Leon and Carol Sheldon). The food shelf is an important part of our community.

The Vermont Food Bank distributes food to different food shelves all around Vermont. It gets most of its food from donations, either from individuals or from stores. Grocery stores donate foods that they’re going to throw away, including dairy products, bread, cereal, frozen meats and other foods that are close to their expiration date. Some stores that contribute include Hannaford’s, Wal-Mart, Target, King Supers, Safeway and Albertson. The food shelf helps everyone in need.

They help low income families with children, the “working poor”, the unemployed, disabled residents, seniors, low income indi-

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**The students at The Sharon Academy Middle School have spent the last several months studying the politics of food and hunger on a local, national, and global level. We researched specific issues relating to food and hunger that interested us individually, and compiled what we learned in this newsletter. This collection of articles is intended to educate our community about the intricacies of a topic that most people give little thought to. We hope that these articles will inform you about food and hunger and encourage you to make better decisions about the food you purchase. After you are done reading this newsletter, please pass it on to someone else who might enjoy it. If you would like to contact us, you can visit: [www.sharonacademy.org](http://www.sharonacademy.org) or call 802-763-2531.**

- Daniel Lazar,  
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THIS NEWSLETTER  
IS DEDICATED IN  
MEMORY OF  
LINDA BLAKEMAN,  
FRIEND AND PARENT  
OF THE  
SHARON ACADEMY  
MIDDLE SCHOOL

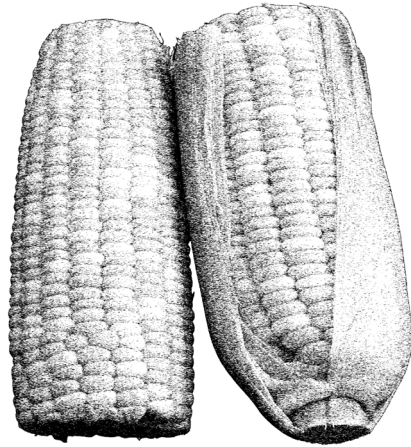
## KINGS OF CORN

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they grew on their acre, so they looked into the places where their corn could go. After being turned down by artificial sweetener corporations, they made corn syrup in their kitchen. They also explored corn's use as cattle feed, which disturbed them. The utopia of corn they pictured initially turned out to be a dystopic industrialization. Some important places where they learn about corn are the following; Ian and Curt walk into a doctor's office (who studies isotopes) and the doctor takes a sample of their hair. He brings Ian and Curt into a room with a machine that looks somewhat like an old IBM computer. Then he tells them, thorough analysis of their hair, that it is mostly made of corn. In other words, it had become part of their bodies because of their inadvertent over-consumption of corn products. Another scene that was somewhat disturbing occurred when Ian and Curt walked into a gas station/convenience store where they took a look at every product in one whole aisle; in every product there was the artificial

sweetener "corn syrup." A final scene we found surprising were the crowded beef feed lots- Ian and Curt go to Colorado where they are disturbed to find that all the cattle that used to be fed grass are now being fed corn. They find out that corn makes the cattle grow faster and become fatter, and then the cows get sent off to a slaughterhouse to be processed and packaged. There are many more eye-opening scenes in the movie. To find out more you will have to see it for yourself!

We thought the movie was funny, but



## FOOD SHELF HEROES

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The Sharon Food Shelf depends on the Vermont food bank, but it also depends on its volunteers.

At the Sharon Food Shelf, about nine volunteers show up to serve people food. These people are very helpful when it comes to feeding the community. They enjoy serving people and seeing them smile. The volunteers who work at the food shelf are usually 16 year-old and older. The food shelf always needs help distributing food to people and families who desperately need it. What the volunteers get back from helping out with the food shelf is the biggest reward that you could possibly get. They get back smiles, appreciation, and gratitude. (Leon and Carol Sheldon). If you can't volunteer at a food shelf, though, you can still donate.

viduals with chronic illnesses, the mentally ill and the homeless (Leon and Carol Sheldon).

Donations are one of the most important parts of the food shelf. Without donations, there would be far less for the food shelf to distribute. There are two types of donations, a financial donation and an actual donation of food. A financial donation allows the food shelf to purchase more food. Donating food is an even more direct way to restock the food shelf's supply. Donating money or non-perishable food can help a food shelf stay in business. (Leon and Carol Sheldon)

The Sharon Food Shelf, like any other food shelf in Vermont, is vital to our community. It has changed many people's lives for the better, and it will continue to do so. The food shelf brings much happiness to everyone who walks through the door. We should always make sure to honor the people who work incredibly hard to help people in need.

most of all it was disturbing to see how much corn production and processing has changed over such a short period of time; it makes you wonder what's next. This documentary was eye opening; it exposed us to the reality of farming- not the little family farm you see on PBS, but a big industrialized version. The animations in the film made it easier to understand the production and process of growing corn. The still camera time-lapse images of the corn growing were creative and showed the viewer how much faster corn can grow when treated with ammonia, and weed killers or pesticides. The camera angles were interesting- such as the view from the underside of the sprayer.

We recommend this movie to everyone. King Corn plays an important role in teaching today's society about the agricultural revolution and industrialization of what was once a simple two-acre farm with an acre of corn. Technology has advanced corn production to record quantities. As a result, corn has infiltrated our lives and our bodies in alarming ways. Are we slaves to corn? Watch King Corn and find out!

## POVERTY AND OBESITY: IS THERE A CONNECTION?

BY JORDAN STEVENS AND LYDIA ROE

The image of a poor person has changed little throughout history – someone who is skinny and undernourished, whose food insecurity has kept them from a healthy weight. But in actuality, poverty in the U.S. today has a much different appearance.

In today's world of fast food, being hungry does not necessarily mean you are thin. Studies show that those who struggle financially have a tendency to be more obese than those who have a larger income. But why is it that those who have little to spend are more prone to being overweight? The less money you have, the less food you should be able to buy, so at first this doesn't make sense. If you are not eating much, it would seem you shouldn't be overweight.

The United States government considers living in poverty to be living in a family of four with an income of \$22,314 or below (Censky). There are many ideas as to why obesity is more prevalent among people living on this low income. These include the thoughts that poor people are less educated about nutrition and do not realize what is unhealthy for them, that they are too busy or lazy to have a sit-down meal, or that they are too tired after working two jobs to exercise. While these beliefs may apply in some cases, the real reason for the correlation between poverty and obesity is the fact that in our society, inexpensive foods are filled with empty calories.

We looked at two sample diet plans from Hunger Free Vermont, each of which described three meals a day plus a snack. The diet that consisted of healthy fresh products cost almost five dollars more than the plan that was made up of processed foods. It was more expensive, but it also had 900 fewer calories ("The Paradox of Hunger and Obesity").

To illustrate the fact that healthy food is more expensive, Dr. Adam Drewnowski, a professor and obesity researcher, went to the grocery store with a hypothetical dollar. His purpose was to purchase as many calories as possible with this tiny budget. The results? This hypothetical dol-

...THE REAL REASON FOR THE CORRELATION BETWEEN POVERTY AND OBESITY IS THE FACT THAT IN OUR SOCIETY, INEXPENSIVE FOODS ARE FILLED WITH EMPTY CALORIES."

lar could only buy him 250 calories of carrots – however, it could buy him over 1000 calories of potato chips or cookies. It could also buy him almost 900 calories of soda, but only 170 calories of orange juice ("The Economics of Obesity: Why are Poor People Fat?"). This experiment clearly shows the distinct difference in price between healthy and processed foods.

People fall into five different categories relating to weight by measuring their body mass index, or BMI. A healthy BMI for adults is 18.5 to 24.9 ("Healthy BMI"), while an overweight person would be between 25 and 29.9. Those who are obese have a BMI of over 30, and people are considered morbidly obese when they are over 40 ("Preventing Obesity in Vermont"). In Vermont, 35.5% of adults are overweight, while 23% are obese (Jeffords). In 2004, 11% of adults who were obese reported that "they don't have enough food or enough money to buy food." 16% of morbidly obese adults said the same thing, compared to only 9% of healthy weight adults with the same problem ("The Health Status of Vermonters").

According to the Vermont Department of Health, "Data from the Vermont Behavioral Risk Factor Surveillance System indicates that adults who are in the extreme obesity category (BMI > 40) report the highest prevalence of experiencing hunger in the past month." ("Preventing Obesity in Vermont").

To some of us, it might seem like people living in poverty should just choose quality over quantity. But if you were struggling and only had four dollars to spend on your next meal, would you buy half a pound of organic kale, or would you buy a hamburger and drink at McDonald's? Most likely you would choose the hamburger – it would be far more filling and probably taste better. People living in poverty, trying to provide for their families, don't have much of a choice. The food that will fill you up costs less. You could buy the kale, but at around 110 calories, it is not going to satisfy your hunger or give you a real meal. It is easy for a family with a larger income to make healthy eating a priority – but those who struggle financially just can't spend much money on fresh healthy produce.

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# A JOURNEY THROUGH HUNGER: THE DIARY ENTRIES THAT TELL OUR STORY

BY ROBIN CHADWELL AND CLARA HENDERSON

We are two eighth grade girls who attend The Sharon Academy. Clara has been lucky enough to have a supportive, loving family, who gives her opportunities to pursue her passions. Everyday, she is provided with the nutrition needed in order for her to excel as both a student, and a person. Robin's family provides her with the support and nutrition she needs to excel in her passion for sports and academics. We both go to bed with a full stomach, knowing that there will be a wholesome breakfast available to us in the morning. We often take our lifestyle for granted. We barely ever stop and think about what it must be like not to have the support, opportunities, and nutrition that enable us to succeed.

In the beginning of the school year, the Sharon Academy was given the wonderful opportunity to take a field trip to Heifer International. While at Heifer, we ate and lived as if we were a hungry family struggling to make ends meet in an impoverished area. This organization gave us useful insight that continues to help us empathize with people living in third world countries. After the field trip was over, we were left wanting even more insight into the thought process and feelings a child may have while living in the developing world.

More than half the deaths of children under the age of five are caused by malnutrition and starvation. 3.5 to 5 million children die of hunger every year, 16,000 every day, and 9 every minute (country, "MSF-USA"). Hunger is a deadly cycle that billions of people all over the world are trapped in.

While there is more than enough food to supply every human being with 3500 calories per day, about 25,000 people die of hunger daily (Global Hunger). The average American citizen consumes 3770 calories daily – which is almost double the amount of calories that is suggested for a healthy lifestyle (Partners, ONE). However, impoverished citizens living in countries such as The Demo-

cratic Republic of Congo consume less than half the amount of calories an average American does.

Consequently, we decided to drastically lower our caloric intake per day as an experiment in an attempt to gain a greater understanding of what it means to be hungry.

Before starting this project the only

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hunger we had experienced was simple cravings for fatty, salty and sweet treats that many Americans enjoy on a daily basis. We had never experienced true hunger before. As an attempt to remove ourselves from our pampered American life, we aspired to go for about five days eating 800 calories per day. This 800 calories consisted of one apple, two eggs, one cup of peas, one cup of corn, one cup of brown rice, and one quarter of an avocado. We chose to include brown rice and corn because it is a staple in the diet of many third world countries. The other foods were picked primarily for their nutritional value. We chose 800 calories because in most third world countries the people consume anywhere from 1000-1500 calories daily (Daily Calorie). Since this project only lasted for a short amount of time, we decided to lower the calorie consumption below the average amount so that we could experience a greater amount of hunger, in a short amount of time.

Day 1 from Robin's view: I woke up, got dressed, walked down the stairs, and reached for a bagel with cream cheese. But wait – something was different – this

was the day Clara and I began our hunger experience. I made one scrambled egg, and ate a small apple. For the next few days, that would be my breakfast. I felt less satisfied than usual, but still confident that I could easily take on this challenge. For lunch, I had one cup of peas. But the real struggle was when my Dad came home with a box of cookies for the school pot luck. I watched as my sibling happily devoured a cookie while I sat in the other room looking down at my empty bowl. Dinner came, and so did the temptation. I escaped from the dining room table, but the smell of spaghetti and Italian meatballs followed me the entire night. I suddenly realized that this would be harder than I had thought.

Day 2 from Clara's view: I followed our new breakfast routine; one apple, and one scrambled egg. As I walked out the door to go to school, I remembered something that I would rather forget; today was the school potluck. I was attentive in most of my morning classes, but the potluck was always in the back of my mind. When the time finally came for the potluck, I had to tear myself away, because I could feel my mouth watering and my hands just waiting to grab a cookie. Robin and I had to remove ourselves from the crowd to resist temptation. At the other end of the school, we sat like outcasts, eating our corn and brown rice. It was a feeling Robin and I had never experienced – alienation due to food.

Day 3 from Clara's view: Instead of dreading the rest of day, I woke up to find that I was excited for the breakfast that I had learned to appreciate. However that excitement soon ended when I got on the bus for the Suicide Six ski area. I walked into the lodge, and was bombarded with the smells of French fries, grilled cheese, and caramel hot chocolate. While skiing, my head started to hurt, and I felt very uncomfortable. However, when I got inside the ski lodge, my dis-

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# A JOURNEY THROUGH HUNGER

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comfort continued, but in a different way. Instead of my body being hungry, my mind became hungry as well. I watched as my friends warmed their hands with cups of fragrant hot chocolate, and enjoyed warm, salty fries. Usually, I would buy fries for myself, or just share some with my friends. This time, I had to bury my head in my hands, and just wait for it all to be over. I was starting to know the feeling of true temptation.

Day 4 from Robin's view: In contradiction to my feelings in the morning of Day 3, I felt angry and irritable. I was starting to loathe meal times. I did not look forward to anything – eating the unsatisfying food felt like a chore instead of a reward. I was not my normal, happy self. My mind became something I did not want it to be; angry, frustrated and only focused on food. I quickly became annoyed at my friends and family. They could enjoy food without a care in the world – I was jealous. My family gathered around the table for a dinner of homemade corn chowder and focaccia bread. I sat about three feet away, smelling the wonderful food from the couch. I tried to distract myself by reading a book, but the words seemed to blur on the page, and my mind went elsewhere. My dad let out a sigh of approval for the delicious meal, "Mmmm..." and that was the last straw. I threw down my book, jumped to my tired feet, and the words seemed to be forced from my lips, "I WANT FOOD!" My family turned around, wide eyed and confused, and then I realized – hunger had changed me.

Day 5 Our experience together, from Robin's point of view: Clara and I felt torn. Both of our heads hurt, but hunger was more of a persistent, annoying feeling than a painful one. That night was the school dance, and everyone knew there would be a supply of cookies, chips, soda, and other tempting treats. But the real temptation was going to happen before the dance, when Clara and I would go over to a friend's house for dinner. Even our friend talking about what was for dinner pained us. At school, the big deci-

sion loomed over us like a storm cloud: "Should this be the final day? Should we return back to our normal diet?" During Spanish class, Clara sat in a chair, looking at the teacher, but her mind was only focused on one thing: Food, food, and more food. After class, her teacher came up to her and said she noticed that she was not her usual attentive self during class. The thing is, she knew that Clara was doing the 800 calorie a day experiment, so she understood why Clara was not as focused. However that's when Clara started to wonder, "What would it be like if your teacher did not know that you were food insecure? How hard would it be to hear that you don't pay attention in school, when you barely have enough energy to keep yourself from falling asleep?" We thought about how misunderstood these people might feel, and it dawned upon us that hunger does not only affect people in third world countries. It affects people in our own country, in our own state, and even in our own community. Children are struggling with hunger all over Vermont, and even though they might have a roof over their head and a school to go to, they could still be malnourished. In elementary school, the kid who could never stay focused, or the girl who could never pay attention during class could have easily been struggling with food insecurity. Clara and I have both taken a new perspective on kids who lack focus during school, because it may be due to hunger.

Clara and I decided that after school, we would leave this hunger journey behind us, but from it we gained the knowledge and insight into a hungry child's life that helped us further understand what it means to be hungry.

We began our normal diet with a wonderful dinner that gave us the sweet satisfaction that we had been longing for. At first we thought this experiment would just be painful for our body. However, as we delved deeper into the project we realized in the end that it was our mind that stopped us from going further in the experiment. We were constantly surrounded and tempted by food that we

had to restrain ourselves from eating. We knew in the back of our minds that at the end of this experiment, a tasty, hot meal would be provided for us. However, all over the world, people must struggle with hunger their entire lives. They are not reassured that they will have a hot meal at the end of the week. Even though four and a half days was a struggle for us, it brought us a little closer to knowing what life might be like if we had to live our entire lives on 800 calories per day. This experiment took a toll on our bodies and minds, but rewarded us with the knowledge that helps us to further understand what it means to be hungry.

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# ON-FARM SLAUGHTER: UNCLEAN OR PRISTINE?

BY CHRIS GISH AND BRUCE ATWOOD

Since the 1970's, the meat industry has trended away from the traditional small farm towards fewer, but much larger, corporate farm complexes. Today, the Food and Water Watch reports that four corporations, Tyson, Cargill, Swift, and National Beef Packing process 84% of all beef in America in huge, mechanized slaughterhouses (Estabrook). However, some people wish to buck this trend and continue the old fashioned way of raising meat. An integral part of this method is slaughter and processing, and many see slaughtering on the farm as the most desirable technique.

On-farm slaughter, the practice of killing livestock in the same place as it was raised, has generated deep controversy between Vermont and the USDA (United States Department of Agriculture) in recent years. The state of Vermont has passed legislation encouraging on-farm slaughter, but USDA oversight prevented many of these reforms from becoming law. In 2007, Vermont passed the so called "Chicken Bill", which allowed small scale poultry farmers to slaughter and process birds for sale to consumers without needing a state inspected facility (Farm Fresh Meat). Vermont went a step further in 2008, when it legislated the Farm Fresh Meat bill, aimed at encouraging meat production on small farms. This act would allow customers to buy meat animals live, though the animals would continue to live the rest of their life on the original farm. These animals could then be slaughtered and processed on the farm, without the need for an inspected facility (Ancel). However, the USDA Food Safety and Inspection Service, upon reviewing the Farm Fresh Meat bill, divested it of many key provisions. The revised law only allows on-farm slaughter under the individual and custom exemptions. One qualifies for the individual exemption if the meat is consumed only by the farmer, his/her family, employees, or un-paying guests. The custom exemption allows farmers to sell meat slaughtered

on the farm if the animal is slaughtered by an approved custom slaughterer in a VTAA (Vermont Agency of Agriculture) approved sanitary custom slaughter facility (McNamara). The USDA revisions have taken away many of the benefits of on-farm slaughter for small farmers, as it is laborious and expensive to fund a certified slaughterer and facility.

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The USDA cites safety as its main concern in restricting the legality of on-farm slaughter. The USDA and other food safety organizations claim that on-farm slaughter in an uncertified facility increases the risk of tainted meat. Traditionally, many small farmers slaughtered their animals in no facility at all. It was common practice to hang the carcass from a tree limb or tractor bucket and process it there, where it may have been exposed to flies and other undesirables. These operations were obviously not "clean" in the sense that they occurred in a place that can be wiped down and sanitized, and the USDA could not inspect these activities to fulfill their role in ensuring the safety of the public's food. Because of this, the USDA decided to only allow on-farm slaughtered meat to be sold if the livestock was killed in a facility inspected to ensure its safety. Additionally, on-farm slaughter leaves one with the task of disposing the entrails from the carcass, a potential contamination hazard for surrounding land and waterways. Inspected slaughterhouses, on

the other hand, must adhere to rigorous safety standards regarding proper waste disposal (Larson).

Contrary to the USDA, many believe that slaughtering on the farm is safer and far less of a public health risk than the methods of large farms and slaughterhouses. It is common practice at these large factory farms for the animals to spend their entire life amid their own waste, which often cakes onto the hide. At the slaughterhouse, there is a chance (albeit small) that disembodied hides come into contact with the carcass, the carcass falls onto the filthy slaughterhouse floor, or the intestines are punctured during evisceration. In the event that one of these things occurred, the carcass would aptly become contaminated with unhealthy bacteria, including the virulent E. coli strain 0157:H7 (Mueller). The danger to the public is then greatly magnified when this meat becomes a component in meals for a multitude of different people across the country, if not beyond.

Traditional on-farm slaughter, however, is a very un-mechanized, relatively simple process that requires human attention during every step, thus substantially lowering the risk of an error going unnoticed. The USDA's assertion that on-farm slaughter techniques as a whole heighten the risk of contamination is absurd to many small farmers. In the case of a typical on farm slaughter operation, the animal is shot in the head, which kills it painlessly and immediately. The carcass is then hung from a tree limb from sanitized hooks, where its hide is removed. Next, the animal is eviscerated and is processed into individual cuts. As long as all the tools are properly sanitized and the meat is handled well to avoid contamination, the risk of tainted meat is very low. The process is simpler and there are fewer instruments to keep track of, not to mention that there isn't nearly enough time for flies and other undesirables to infect the meat. The meat from on-farm slaughtered livestock would also be distributed to far fewer people in a far smaller region, meaning that even if the

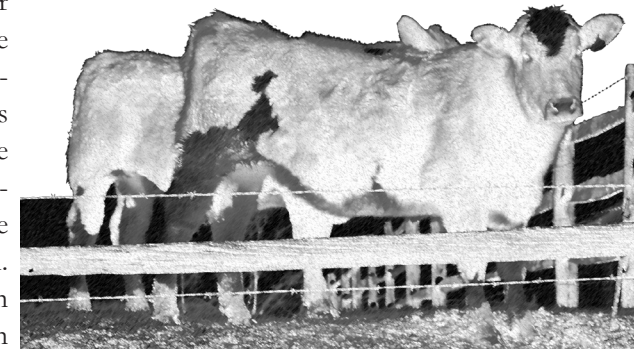
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## ON-FARM SLAUGHTER

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meat were contaminated, it wouldn't engender a widespread public health threat.

Many small farmers are frustrated with the USDA's changes to this law, as it hinders their effort to make a profit selling local meat. Due to small size, it is often prohibitively expensive and laborious to operate an inspected slaughter facility on the farm, and to become a certified slaughterer. In such cases, the USDA suggests instead sending the animals to a larger, fully USDA certified slaughterhouse. However, many small farmers find this option less than ideal, for large slaughterhouses are often quite a distance from the farm. Transporting livestock long distances is known to increase stress levels in the animals. Additionally, animals sometimes must stay a few days alive at the slaughterhouse prior to being killed. Often times this occurs in less than desirable conditions, adding even



## SHOP SMART

BY MAHAR SPERLING AND PER PYTTE

What do you need to know to shop smart for your food? Surely you are aware just how difficult it can be to decide where to do your shopping. The abundance of large grocery stores can be overwhelming if you're trying to make a choice without enough information. We've written this article in an endeavor to help you make an educated decision about where to shop.

We asked ourselves, "What are the qualities of a good grocery store?" We decided that most people are looking for a store with a convenient store with affordable, quality food, a clean atmosphere, helpful staff and good customer education. There are many categories that fall under customer education the most important being the store's ability to inform the customer about which foods are healthiest, of good quality and best for children.

We compared the Rutland Price

Chopper and Lebanon Co-op. These are representative of conventional and health food stores throughout the country. Our hypothesis was that Price Chopper would provide affordable food, but come up short on the other standards while the Co-op would excel in everything but provide more expensive food. We'll tell you our results and let you decide whether they support our hypothesis.

Convenience is a major factor when considering at which store to shop. Consequently, we looked at the hours in each store. Price chopper is open 24/7, which is much more convenient than the Co-op, which is open only from 6 am to 8 pm.

Cleanliness is another factor that comes into play when choosing where to shop. We decided to examine the cleanliness in both stores. Price chopper wasn't notably clean- the shelves were somewhat dusty, in some places you could run your finger on the shelves and gather an

impressive layer of dust on your fingertip. The floor, in contrast, was in decent shape. At the Co-op, the shelves were shiny and well kept. The floors were similar to those of the Price Chopper.

We consider price and quality to be possibly the most important factors that come into play when choosing which grocery store to shop at. So we looked at the price, quality, and variety of both store's selection of lettuce, ground beef, peanut butter, and broccoli.

Price Chopper's lettuce and broccoli were only available in conventional varieties. As for it's quality, some of the lettuce leaves were of questionable freshness, others were even brown and wilted. There was some dirt amidst the broccoli. The prices averaged around \$3.99 per pound for the lettuce, and \$1.99 per pound for the broccoli. The Co-op lettuce was available in organic and conventional varieties. Their quality was noticeably better. The lettuce was freshly sprayed and we didn't notice any brown

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## SHOP SMART

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or wilted edges. The price for the lettuce was actually cheaper at the Co-op. Organic lettuce at \$3.99 and conventional at \$2.50. The Co-op Broccoli was also available in organic and conventional varieties that were presented in a noticeably cleaner and fresher format. However, it was more expensive, organic at \$4.99 and conventional at \$3.99.

Price Chopper's ground beef came in four different conventional varieties, all from factory farms. They were organized and priced based upon their fat content. The meat was of decent quality, and the least fatty was priced at \$4.99 per lb. while the most fatty came in at \$3.49 per lb. The Co-op's ground beef was available in organic and conventional varieties, priced at \$6.79 per lb. for organic and \$3.54 lb. for conventional.

As for the peanut butter at Price Chopper it was only available in conventional varieties, of somewhat shabby quality (dented cans, dust, and the occasional broken vacuum seal). The average price was \$2.17. At the Co-op the Peanut Butter was organic as well as conventional. It was of better quality, and the price ranged from \$3.50 for conventional to \$6.39 for organic.

After we finished examining the food we proceeded to interview the employees to determine friendliness, helpfulness and knowledge. Price chopper employees

tended to be a bit more dismissive and ornery than at the Co-op, but we were still able to get information from either store. At the Co-op, we spoke to a young man who said that the Co-op's starting wages were \$10.50 an hour. At Price Chopper, we interviewed a woman who had been working there for ten years, and only earned \$9.10 per hour.

At both stores' meat departments, employees said they restocked their beef once per day, and that no beef was on the shelf for longer than three days. In the Co-op's produce department employees said that they examined their individual fruits and vegetables for freshness every day, and threw out the ones that didn't meet their standards. Price chopper, however, did not examine their vegetables individually and said that they would keep vegetables out on shelves for up to three days.

Finally we tested the store's ability to educate their customers. At Price Chopper there were a few leaflets, but they were mainly comprised of coupons and money saving offers. There was also a system called NuVal (Nutritional Value), which, to us, seemed somewhat flawed, giving Dole canned pineapple the same rating as Doritos Nacho Cheese Chips (both with a 24) and Jello a higher rating than eggs. At the Co-op the shelves were filled with leaflets, brochures and documents, which educated their customers about every aspect of food. Employees



## LOCAL VS. ORGANIC: WHICH IS BETTER FOR YOU AND THE PLANET?

BY OTIS HUDNUT AND BEN DICAROLIS

You may think that those delicious-looking organic apples you bought yesterday came from a nearby farm. You might also delude yourself into thinking that the local head of lettuce you bought was grown organically. But, in fact, out of approximately 40 local farms in the Upper Valley, only 16, (approximately 40%), are actually certified organic (List of CSAs) (county), and much of the organic produce in stores like Shaw's, Wal-

Mart, or even the local Co-op is not local. So it becomes a choice. Which is more important to you, being a localvore or eating an organic diet? You can't always have both. Sometimes we are faced with a choice. Should you buy the local product that is made with conventional practices or should you purchase an organic product that has traveled farther to get to your store? The following is a comparison of three foods- chicken, apples, and

were also better at educating the customer. At Price Chopper we asked an employee what the difference was between organic and conventional products and he replied that there was "no difference"; at the Co-op the employees were able to give highly educated comprehensive descriptions as to the difference.

We said at the beginning of this article that our aim was to give you information about which grocery store to choose. Now that you've seen the information, we want to quickly go over the general distinctions that emerged between the Co-op and the Price-Chopper. In the case of food and customer education, the Co-op almost always emerged as the better of the two, with fresher vegetables, generally higher quality produce and brochures and leaflets educating their customers. If you are looking for convenience, Price Chopper is probably the dominant of the two. It has 24-hour service and cheaper foods. One more distinction is that, while Price Chopper gets most of its meats and other foods from large companies out West, the Co-op receives shipments from smaller, more local farms from areas including Vermont and Maine. This means that people who live nearby are benefiting when you buy their products from the Co-op. The money is staying within (or closer to) your community. Next time you are thinking about where to do your grocery shopping, think of our article, we hope it will help you decide.

lettuce- to see whether organic or local is more important.

### "WHICH IS MORE IMPORTANT TO YOU, BEING A LOCALVORE OR EATING AN ORGANIC DIET?"

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## LOCAL VS. ORGANIC

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Organic	Local
<p><b>What is organic?</b> We hear it a lot these days: "I've been trying to buy organic food," "Organic food is great!" and other variations and topics. But what does organic mean? Organic food is food which has been grown without use of synthetic pesticides, fertilizers, growth hormones, prophylactic antibiotic use, CAFOs, or GMOs (Organic.org). It is considerably better for the environment, as the practices do not cause nitrogen and pesticide runoff or mutate other organisms in the ecosystem. Also, without dangerous pesticide leftovers on the food, there is no risk of pesticide poisoning. With no growth hormones, CAFOs, or prophylaxis, organic meats are less likely to contain antibiotic-resistant diseases or hormones which affect humans, and the animal tends to be in a better state of health when slaughtered. Organic food also contains much more nutritional content in the form of vitamins and minerals than conventional food (Nutritional Considerations).</p>	<p>People in the Upper Valley and communities everywhere across the US are supporting their local economies by buying from local farms. Local farmers aren't always organic, even though they could be, and people in their community tend to buy local food, because the money they spend on food goes to their local farmer, market, trucker, etc. The money going back to those local businesses helps their community.</p>
<p><b>Chemical Use:</b> Organic farms are prohibited from use of GMOs, synthetic pesticides, growth hormones, and fertilizers. This means that there are no pesticides or fertilizers in organic food, which protects consumers from pesticide poisoning.</p>	<p><b>Chemical Use:</b> The pesticides used are for survival or appearance mostly because they don't need the preservatives for long distance transporting (Sust). Although some local farms use pesticides to make the product look pretty but many other farms do as well (TSI). Foods that are not local and must travel long distances need chemical preservatives to keep them fresh.</p>
<p><b>Health Risks:</b> Organic foods use no pesticides, so there is no pesticide risk associated with eating organic food. However, a recent study shows that, if eating an organic diet, there may be a slightly higher risk of food-borne pathogens due to lower use of fungicides and antibiotics (Organic Food Health Risks).</p>	<p><b>Health Risks:</b> Most local food to the Upper Valley is healthy and safe. Local food is just as safe as food grown a thousand miles away, unless unhealthy pesticides are used or a disease has spread through a local area (Sust).</p>
<p><b>Nutritional Content:</b> Organic foods contain much higher levels of vitamins and minerals than conventional food. In recent studies, organic produce contained up to 25% more vitamins and minerals and up to 10 times the amount of antioxidants. Additionally, organically raised meat contains more and a greater variation of vitamins, amino acids, and minerals (Nutritional Considerations).</p>	<p><b>Nutritional Content:</b> Conventionally grown local food has much the same nutritive quality as non-local food from farther away, but is much fresher, as it has a shorter travel time</p>
<p><b>Carbon Footprint:</b> In terms of carbon emissions, organic food that is not local has the following carbon footprints per pound. Chicken's footprint: 1.83 Kg CO2/lb. Lettuce's footprint: .14 Kg CO2/lb. Apples' footprint: .16 Kg CO2/lb. These statistics presume that the aforementioned food was transported from within 1,000 miles by truck (Food Carbon Emissions Calculator).</p>	<p><b>Carbon Footprint:</b> Not a lot of carbon is emitted from transporting local food because it doesn't need to travel far (Sust). Production and waste emissions of this food be much different from most other food, unless that food is organic (ELM). This is not only helpful for the planet, but saves money and fuel.</p>
<p><b>Economics:</b> Organic food has similar monetary recompense to conventional food, when grown, processed, and sold in the same manner. In our simulation, the approximate monetary return to the farmer out of every dollar spent on organic food is 16 cents. The remaining money is spent on packaging, processing, shipment, ads, etc. (Canning).</p>	<p><b>Economics:</b> The local economy returns more money back to the farmer, compared to a non-local farmer. For example, since little transportation is needed, the local economy is basically a circle of money from farmer to store to customer and so on. (Sust)</p>

When we review our arguments, we see that organic food has superior nutritive quality and is superior to non-organic food in terms of its environmental impact if you disregard fuel consumption and carbon emissions. It also has lower proven health risks, although some stud-

ies imply that there may be a higher risk of food-borne pathogens. In contrast, local food creates more economic return for the farmer, and also has a lower carbon cost. In short, organic food is better for the planet in terms of its production and environmental impact. It is also

somewhat healthier for you. Meanwhile, local food is better for the local economy and in terms of transport and carbon emissions. The final decision is yours. Which is more important to you?

# TAPPED: WATER AT ITS WORST

BY DYLAN CARSON-TURNER

Bottled water is convenient, easy to use, and cheap. What a perfect source of water. Well, that's not really true. In the documentary film, *Tapped*, directors Stephanie Soechtig and Jason Lindsey guide you through the dark and corrupt industry of bottled water and expose what is really in your plastic bottle. They use flawless reporting to support their argument that bottled water is terrible for your health, for the environment's health, and the world's health.

The first place we go is Fryeburg, a small town in Maine, where the food-processing corporation Nestle commandeered the town's water supply where they are bottling the water and selling it worldwide. Nestle and other beverage companies are mining water in many small towns across the United States. Eventually, the corporations mine up the town's entire supply, then pack up and leave. Water, to the corporations, is just a commodity to be used for profit. But to most of the world, water is a human

necessity that no one owns.

Next, we travel to Corpus Christi, Texas. Home to the biggest privately owned plastic refinery in the United States. Corpus Christi is a very sick town, devastated by diseases such as prostate cancer and liver disease, that are linked to the byproducts of the refinery. While corporations are advertising that tapped water is dirty and unhealthy, the plastic bottles they use end up poisoning communities. Tapped water, on the other hand, isn't hazardous, because it is tested hundreds of times a month all over the country.

From Corpus Christi, the filmmakers take you to Cammillo, Florida, where the water is congested with trash and littered with plastic bottles. Cammillo beach represents the future of beaches in the United States. Plastic waste, in the form



of bottles, is accumulating all over the world.

Soechtig and Lindsey perfected the structure in *Tapped*, swerving rapidly from dark scenes to inspirational ones. They had a strong rebuttal for every single argument that was against their position. To make the film more meaningful, they added powerful music, dialogue and cinematography. There was a scene showing pictures of the horrors of droughts that were in black and white, and the camera gradually zoomed in on the pictures to complete the scene. What I thought was the best scene was the end of the film, Soechtig and Lindsey perfectly blended dialogue, cinematography and music to make an inspirational, good feeling ending that encouraged me to stop buying bottled water, and also the ending completed the film.

Soechtig and Lindsey's film was fun, while educational at the same time. *Tapped* is a film that will change the people's perspective on corporations. If you watch the film, you will look at bottled water differently forever.



# SHOULD PIZZA REALLY BE A VEGETABLE?

BY RICHARD MORRILL AND ELI CARINI

A bill with the good intention to make school lunches healthier has wound up becoming a way for corporations to make money selling unhealthy food. A bill passed in Congress last November made a slice of pizza equal to a serving of vegetables, because the tomato sauce in the pizza was considered nutritionally rich. Many frozen food companies applauded this bill because more of their food could be sold to schools. The same companies opposed an initiative presented last January that would have made more fresh fruits and vegetables appear

in school cafeterias (Adams).

In 2009, the Institute of Medicine (an unbiased organization that provides advice to our elected officials) evaluated how the school lunch program could be associated with the USDA. The USDA used this report to develop a bill that would reduce the amount of sodium, potatoes (French fries), saturated fat and total calories in school lunches (Adams). These recommendations were proposed in January of 2009 and the public was asked to comment on these suggestions. However, this initiative never passed.

The USDA then recommended removing pizza from the school lunch menu. However, the FDA and many Congressmen wouldn't permit this. They argued that the meals would cost more and kids would throw it away because they wouldn't like the food being served. According to them, if pizza had a quarter cup of tomato paste on it, it qualified as a serving of vegetables. It appears that lobbyists from frozen food corporations have influenced the FDA and Congress's decision because they would no longer be able to sell to schools (Nixon).



# SHOULD PIZZA REALLY BE A VEGETABLE?

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The FDA's choice might not be that bad if the pizza actually had vegetables as the topping. If schools were to serve vegetable pizza, it would come much closer to helping children get the nutrients they need every day. However, schools typically serve only pepperoni and cheese pizza. A poll of pizza sales revealed that of all orders placed 36 percent were for pepperoni, while only ten percent were for vegetable (What are the most popular pizza toppings?). The following table shows the nutritional value of the average pepperoni pizza slice. If an average person were to eat four pizza slices a day then they wouldn't need to eat anything else because they would have consumed all the calories, fat and carbohydrates they needed for that day.

The new bill says that for a pizza slice to be equal to a serving of

	Nutritional Value 1 slice	Daily Value Percent 1 slice
<b>Calories</b>	324	16%
<b>Calories from Fat</b>	114	35% calories from fat
<b>Trans Fat</b>	13g	20%
<b>Saturated Fat</b>	5g	20%
<b>Sodium</b>	608mg	25%
<b>Total Carbohydrates</b>	39g	13%
<b>Protein</b>	14g	28%

vegetables, it has to have at least a quarter cup of tomato paste. Most pizza slices contain only an eighth of a cup, and most schools only serve one slice per kid ("Simple, Easy Pizza Recipe"). This means that kids are really only getting half a serving of vegetables. Also, there is no efficient way to regulate the amount of tomato paste the cafeteria workers put on a pizza.

What the USDA intended as a bill to make school lunches healthier has wound up making pizza equal to a serving of vegetables. Letting schools keep pizza on the menu keeps frozen pizza companies in business. The nutritional value of the pizza is not as high as it should be. If schools were to serve vegetable pizza, it would be a lot better. But since pepperoni is the favorite pizza, nutritional values remain rock bottom. Additionally, a pizza only counts as a serving of vegetables, only if it has a quarter cup of sauce on it. So should pizza really be a vegetable?

# IS JOEL SALATIN NORMAL?

BY DANIEL LAZAR

Joel Salatin describes himself as a "Christian libertarian environmentalist capitalist lunatic farmer." This list covers just about all of the bases in his latest book, *Folks, This Ain't Normal*. Salatin and his family own Polyface Farm in the Shenandoah Valley. Polyface feeds animals as they would have on farms generations ago. The result is healthy meat, healthy animals, and a healthy ecological niche. It makes sense that Salatin would write a book about how modern society, especially in relation to food, has changed so drastically (and negatively) from where it is meant to be.

In *Folks, This Ain't Normal*, Salatin navigates his way through tirades about Western culture, nostalgia for a lost era, and anecdotes from his experiences as a natural farmer, to arrive at an indisputable fact: the things that Americans consider fundamental to our food system are definitely not normal. He reminds the reader of the fact that seventy years ago, there were no supermarkets in the United States. And that vegetable gardens were once a staple of the American household until World War II. And, most importantly, the fact that no society in history has ever put as little thought into what they eat as we Americans do today.

Salatin also teaches the reader how they can try to make a difference. Many of his suggestions seem implausible and unaffordable (such as installing a solarium into your home, or replacing your garbage disposal system with a chicken coop). But like most of the book, looking past the apparently ridiculous things Salatin says can show the reader beneficial wisdom. Simpler suggestions, like making a compost bin, or growing a vegetable garden, abound in the book as well, and they will definitely lessen the readers' impact on the world and input into the failing food system.

Joel Salatin is obviously not afraid to articulate what he believes. He attacks the left and the right, bouncing from chapters bemoaning the flaws of the USDA to ones attacking processed food just as vehemently. There is no political affiliation he can't contradict in some way. As environmentalist writer Bill McKibben said in his review, "Chances are slim you'll agree with everything in this wonderfully cranky book." But the point of the book is one that crosses party lines. We live in a society that definitely "ain't normal."

Despite this, *Folks This Ain't Normal* will no doubt change your perspective on many aspects of the food industry. While there will certainly be conflicts you will have with Joel Salatin, there is no way you can read this book and think about agriculture in the same way.

# SUPER-BACTERIA: BRED IN FACTORY FARMS, NOT LABORATORIES

BY TAITE CLARK

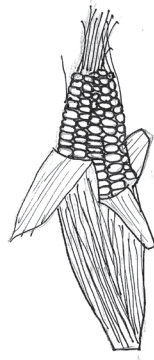
You may know factory farms that use antibiotics on their livestock are considered non-organic, but did you know those farms are quietly growing a sinister health threat inside their animal enclosures? That threat is antibiotic-resistant bacteria. These bacteria originate in the animals' digestive systems, and then live on in the meat as it is packaged and shipped to your restaurant, fast-food chain, or grocery store. Look at the facts, and you may look at the supermarket meat selection differently the next time you buy groceries.

Bacteria have surprising ways of evolving to survive in an environment. Typically, antibiotics target a certain protein in bacteria. When the protein is destroyed, the bacteria are unable to survive. However, sometimes there are a few individual bacteria that do survive the treatment. These bacteria may have developed resistance through random mutations, or they may have been exposed to a low dose of antibiotic, allowing them to modify themselves in such a way that they can survive in the presence of the antibiotic. Once one bacterium has the genetic ability to survive an antibiotic, it can transfer its resistance to other bacteria, producing colonies of resistant bacteria. Once these resistant colonies of bacteria are present, the next time the same antibiotic is given, all other

strains of bacteria that are not resistant will die, leaving ample space for the new strain to colonize. In a factory farm with thousands of animals, there are, statistically, bound to be a few bacteria that survive. On factory farms, antibiotics are often given when they are not needed. This causes antibiotic-resistant strains of bacteria to develop in factory farms, and potentially live on unseen in the meat as it continues on its path to a consumer. Some of the strains can be very hazardous to your health.

The big names in the world of food poisoning, like E. coli (particularly the O157:H7 strain) or salmonella can make you very, very sick. An estimated 18,000 Americans die each year from drug-resistant bacteria, whether contracted through the air, through contaminated water, or unsafe meat (Antibiotics). Botulism is the most deadly of the common bacteria infections. It causes double vision, inability to swallow, difficulty speaking, and inability to breathe. Staphylococcus, Salmonella, Shigella, and E. coli create similar symptoms such as diarrhea, nausea, vomiting, cramping, and dehydration (Food Poisoning). All these bacteria have the potential to mutate into antibiotic-resistant strains.

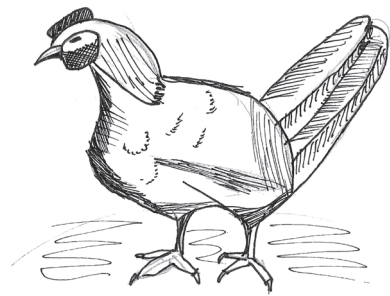
Obviously, antibiotics cost farmers money to buy and use, so they must pay for themselves in increased profit. In part, they are used to counteract problems created by the factory farm. Because factory farms are profit-centered exclusively, it is in their best interest to feed cheap corn to their animals instead of grass. Since a cow's stomach is built for grass, the corn creates the wrong environment in its stomach (Antibiotics). Corn doesn't need to travel through all four stomach chambers to be digested, so bacteria in the final three chambers don't get the same material passing through them. These 'good bacteria' die off, making room for 'bad bacteria' to thrive. Also, the stress animals experience in the dark, unsanitary conditions of an industrial



farm keeps their immune systems from functioning properly (Antibiotics). Factory farms attempt to counteract this by mixing large doses of antibiotics in with the corn feed. The drugs used are called prophylactic antibiotics, because they are not being used against an existing infection. Antibiotics are also used to encourage growth in animals. They do this by killing the bacteria that create low-grade infections and thicken intestine walls so they don't absorb nutrients as well. The animals can absorb more nutrients, and become larger, when they are given antibiotics (Drug-resistant). Given the choice between feeding animals prophylactic antibiotics or spreading them out so they are less prone to contracting and quickly spreading diseases, industrial farms have made the financially smart choice to condense their operations and feed the animals these antibiotics. However, they seem to have not examined or predicted the unintended consequences of overuse of these antibiotics.

As a result of this ravenous consumption by farms, as much as 70% of antibiotics consumed in America are fed to healthy animals, but as much as 80 to 90% of the antibiotics pass straight through the animals without being digested and used (Antibiotics). After all these money and resources have been poured into prevention of bacterial diseases, studies have shown that brands of meat that are known to use antibiotics are just as likely to contain harmful bacteria as brands that use no prophylactic antibiotics at all (Drug-resistant). Those same studies showed 96% of poultry products from Tyson (a major industrial-agriculture corporation that uses prophylactic antibiotics) contained a specific resistant

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## SUPER-BACTERIA

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bacterium (poultry constitutes almost a third of salmonella infections) (By). Clearly, prophylactic antibiotics have no real health benefit at all, to animals or to us.

These statistics are surprising when they are considered, so why aren't there

FDA regulations on antibiotic use? The European Union parliament in 2006 banned the use of antibiotics as a growth enhancer, and they voted against, but did not ban the use of all prophylactic antibiotics on farms. In the U.S. at the beginning of the Obama administration, the FDA seemed ready to ban prophylactic antibiotics on farms, but they recently denied two petitions from citizens ask-

ing for restrictions on antibiotics. Their defense is that it would be too 'cumbersome' to implement a law of this type (Philpott). The government is clearly taking no measure to stop antibiotics from being misused. Just remember that, in addition to the law, industrial agriculture corporations pay attention to what you, the consumer, want.



## THE HIDDEN SIDE OF ADVERTISEMENTS

BY MARILYN GROPE

The average American takes in as many as 5,000 advertisements a day (Cutting through Advertising Clutter). These include television commercials, magazine ads, internet banners, radio ads, billboards, ads on buses and buildings, and lots more. Every single one of those is trying to convince you that their product, like orange juice, or their service, like a lawyer is the best on the market and that you need it right now. They do this by using every trick in their bag, which is bigger than expected. Commercial producers use many different ploys to get consumers to buy their products. Some of these can be dangerous if misused. Advertisers target children and adolescents, because they often believe everything they hear. Because of this children are at the greatest risk of being misled by advertising. They are targeted by many companies that shouldn't target them, including alcohol companies. There are 45 percent more beer ads and 27 percent more hard liquor ads in teen magazines than in adult magazines (Strasburger). Welcome to the sickly-sweet world of advertising.

Children and adolescents have the highest exposure to advertisements, and thus the greatest vulnerability. Children younger than eight years old are cognitively and psychologically defenseless against advertising (Strasburger). The reason they have no defense against advertising is because they believe everything

they hear. This is so extreme that in the late 1970's, the Federal Trade Commission (FTC) came to the resolution that it was unfair and deceptive to advertise to children under six years old (Strasburger). In spite of this conclusion, the FTC didn't ban advertising directed at the children of this age group. Although children are the most susceptible, everyone could be affected by advertisements.

Here are the reasons why: there are two simple advertising tricks, wording, and visual effects. These tactics may prevent consumers from seeing the whole truth.

Advertisers work as hard as they possibly can to find the words that mean something to the consumer, but legally can mean something very different. Juice commercials, for example, say that their product is all-natural. "All-natural" is a relative term. In our mind, that means that it's all from the earth. Technically, it could be defined more broadly as, being physical and not spiritual, which is another definition of natural. The same goes for the term "real". Let's say 50 "real" car customers go to a dealership where they are offered 5,000 dollars to appear in a commercial. All they have to do is state their opinion about the car. The car dealer doesn't tell the customer to say good things about the car, but because they have the chance to earn 5,000 dollars, they feel like they must say good things.

Therefore, the testimony of "real" consumers may be influenced by money.

As for the visual effects, advertisers change lighting and other elements in a "before and after" set of pictures to point out a noticeable difference. This technique is usually used by weight loss and acne products. Let's take Proactiv for example. Proactiv is an acne treatment that's heavily advertised on TV. Their commercials usually involve a celebrity and customers talking about how amazing the product is, alongside before and after pictures. Advertisers know that a side view for an acne commercial is beneficial for a "before" picture because the acne really shows up on their face. As for the "after" pictures, a center view is desirable because it obscures any residual acne. "Before" pictures are also usually shot in a darker light, because we associate darkness with bad, and light with good.

Children are very vulnerable to advertising and even though our country's officials know that, they are against banning advertising directed at children because it would affect business. Our country may not be banning it, but other countries are heading down that path. Sweden and Norway forbid all advertising directed at children younger than 12 years old. Greece bans toy advertising until after 10 p.m., Denmark and Belgium severely restrict advertising aimed at children. (Strasburger). If you are a parent you should be aware of the advertisements that you and your children are exposed to every day.

# WATERMELONS GROWING ON TREES? A CLOSER LOOK AT OUR COMMUNITY'S KNOWLEDGE ABOUT FOOD

BY LUNA SKEET-BROWNING AND LUCIA GAGLIARDONE

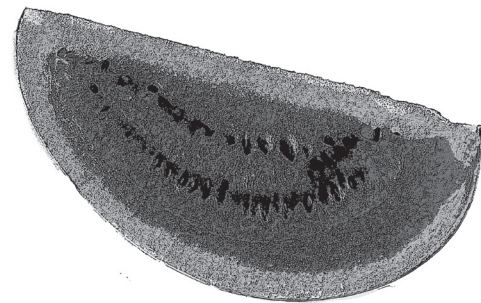
Do you know the difference between a potato and a tomato? A first grade class in Virginia did not. When visited by famous chef Jamie Oliver, the creator of the TED award (technology, entertainment, and design) winning Food Revolution Movement, students were asked to identify multiple vegetables, from eggplant to cauliflower to beets. They did not know a single one (Potato or Tomato? Jamie Oliver's Food Revolution, YouTube). Jamie Oliver started The Food Revolution in Virginia "to educate every child about food, inspire families to cook again and empower people everywhere to fight obesity" (Jamie Oliver's Food Revolution). Overall, children in Virginia were not educated about the nutrients in their food or where their food came from. This raised a question for us: are people in the Upper Valley also disconnected from their food?

We decided to create a survey that would estimate people's knowledge on the health and origin of their food. We designed two surveys to answer two different questions. We surveyed 143 participants at the Co-op in Lebanon, New Hampshire. We were curious to see if people think about what they eat. Do people know that chickens are actually opportunistic omnivores? Has anyone ever wondered what nutrient actually gives you the most energy? Or is our community unconscious about their food choices and the history behind their meals? We were determined to find out.

So, after six long hours of surveying customers, the information was collected, though not without some difficulties. Many people ignored us completely, while others criticized the questions. Others appeared interested at first, but upon discovering the nature of our survey, exclaimed that they were in a hurry and rushed away. However, there were also

various people who were enthusiastic about it. In the end, we worked through the challenges and were rewarded with genuine results.

The first topic we covered was meat. In 2008, the annual meat consumption per capita was about 216 lbs and has been rising steadily (Farm Animal Statistics). Does our society connect the life of the animal to the delicious meat they eat?



Take beef, for example. Studies conducted by numerous scholars, including James B. Russell of the Agricultural Research Service in Ithaca, New York, found that cows fed a diet of mostly corn, as opposed to grass, are prone to developing harmful strains of bacteria such as E. Coli in their digestive tract, and find digestion to be uncomfortable to the point of pain (Diet and Disease). Survey participants were asked to answer whether it was healthier to feed a cow corn or grass, and 95% chose the correct answer of grass.

While most people were previously informed about a healthy cow's diet, the percentage of right answers dropped substantially when it came to our next question: Are chickens herbivores, omnivores, or carnivores? 59% of people wrote that chickens are either herbivores or carnivores, when in reality they are omnivores. Along with grass, chickens also eat insects and scraps, which can

contain meat (Chicken Info). However, one person wondered, "What's an omnivore?" This may have affected the result.

The participants' knowledge of living chickens was minimal, but what about chicken meat? A common form of chicken meat are tenders, juicy strips of the breast, breaded and often fried (Herbed Chicken Tenders). These are not to be confused with chicken nuggets, which is a mistake many individuals made. When we asked them which part of the chicken is the "chicken tender" meat, many answered the wings, the thigh, the skin, or everything, when in fact, it is only the breast. Overall, our community is somewhat connected to the meat they consume, though there is a definite lack of some knowledge. We can deduct that people in the Upper Valley may not be fully conscious of where their meat comes from, and the lives of the animals that provide it. We should also keep in mind, however, that not all participants know what a chicken tender is. Numerous people stated that they were vegetarians, or that they had never eaten chicken tenders. Nevertheless, meat is only one part of the human diet.

A large portion of everyone's diet should be fruits and vegetables. In fact, to maintain a healthy diet, the average human should be getting 2 1/2 to 3 cups (or more) of fruit and vegetables per day. 83% of survey takers knew this. Fruits and vegetables are essential to good health. Along with other important nutrients, they are excellent sources of Vitamin C, which is very important for the body (Vitamin C). A severe vitamin C deficiency may lead to scurvy (Scurvy: Medline Plus). Fruits and vegetables that are particularly high in Vitamin C include red peppers, citrus fruits and broccoli (NIH). One woman exclaimed, "What food has Vitamin C in it? I have no idea." For the most part, participants were aware that citrus fruits and red peppers have Vitamin C, but only 44% knew that the same was true for broccoli. Judging from these overall statistics, the Upper Valley is mostly familiar with the important information about fruits and vegetables.

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# WATERMELONS GROWING ON TREES?

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But did these people know where the fruits and vegetables are coming from? Or how they grow? We asked them which fruits and vegetables grow on trees, and which grow naturally in the Upper Valley, to find out. 35% of the survey contributors were not aware that pomegranates grow on trees, while 7% did not know that lemons did either (Meyer Lemon/Willis Orchards Company). A woman said, "I've never seen a pomegranate growing!" Participants were asked which of a selection of fruits and herbs grow naturally in New England? Everyone knew that blackberries are locally grown, but, for pears and mint, the response was not as accurate. 75% understood that mint is grown locally, and even fewer (63%) knew that the same is true for pears. We were surprised that 6 people thought that either bananas, oranges, or pineapples are grown naturally in New England, while in reality they are found in warmer climates such as Florida. With a few exceptions, the general public in the New Hampshire/ Vermont area know more about what's in their fruits and vegetables than where they came from.

Imagine you are about to begin a journey hiking the Appalachian Trail.

You have to push your body to walk 2,180 miles, and it will take a tremendous amount of energy (About the Trail). Before you head out, you must pack your backpack with the foods that will provide you with the most energy. Do you grab chocolate bars and salty crackers? Or do you instead decide on cans of sardines and bags of almonds and cashews? Both contain some form of energy. However, the highest source comes from the latter of the two. Nuts, seeds, and cold-water fish are large providers of the essential fatty acids that you need (WHfoods). Carbohydrates and proteins do contain energy, but fats supply more energy over a longer period of time (McKinley Health Center). Not only do they have a high quantity of energy, they can be stored in the body for later energy production (WHfoods). However, our results demonstrated that this is not commonly known in the Upper Valley. In fact, only 4% of survey takers answered that fats were the highest energy source. This data shows that the other 96% are misinformed about information regarding energy sources.

Our survey of the community's knowledge of food, showed us how con-



# SOMETHING FOR EVERYONE

BY BEN LAZAR

*Food, Inc.?* At first, it seems like a shallow documentary telling us to love our cows. But minutes into the movie, you realize that this Oscar nominated film is much more than that. It has something for all movie fans. For horror fans? Check. This movie is one of the most terrifying films of the century. For drama fans? Check. This movie will make you weep. For documentary fans? Check. The movie brings out the evils of the food industry unlike any other film. For comedy fans? Check. Darkly funny lines show up along with a laugh at the American system of food preparation.

This movie is enjoyable to any audience, no matter what type of movie you love.

The film is split into nine sections, each focusing on a different food issue. They bring up the horror of industrial chicken farming by showing a sea of muddy, fat, miserable, dying chickens. The segments go on and on, also depicting disturbing images of the cattle farming industry. With the help of renowned author Michal Pollan, the movie uncovers how much corn is involved in our food production. Later, it shows the tragedy of a mother whose child died from an E. coli infection brought about from

nected they were to what they eat. Only 3% knew everything, but most people got at least one answer right. There were a few flaws in the survey. The participants may not have understood the questions, or what was being asked of them. In order to get a full picture of the information, more time would be needed to survey more people and stores. There may be a different clientele at another grocery store than the Co-op, which may give us different results. However, with the data we have, we can conclude that our community is less informed than we had hoped on the origin and healthy aspects of food. Nonetheless, they did know more than we expected them to.

The survey broadened our perspective on the community's knowledge of food, and it also expanded the knowledge of the participants as well. From the seeds that grow into wonderful fresh produce, to the eggs that develop into lively chickens, the food we produce eventually ends up on our plates. But it is our hope that as you bite into that juicy steak, you consider the life of the cow it came from. Using information about your food will help you make conscious, healthy choices to better our community. You may find yourself wondering, like many of the participants in our survey, "Wow, it's fascinating how much I don't actually know!"

eating a hamburger. The scenes continue to appall the viewer; a low-income family cannot afford healthy food, but can afford to eat fast food. The movie then asks the question of why junk food is cheaper than wholesome foods.

One of the scariest stories is the tale of Monsanto, a genetics company that has control over seed production. The segment on Monsanto follows Moe Par, a farmer who operates a seed cleaning business. Monsanto files a lawsuit against his business, saying he is helping others to break their patent contracts. He does this by cleaning the seed which enables the farmer to replant the seed and not have to purchase new seeds from Monsanto each year. This infringes on the

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## SOMETHING FOR EVERYONE

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contract that the farmer has with Monsanto which stipulates that they must purchase new seeds each year rather than engage in seed saving. Longtime friends are turned against Par; many of them are too scared to show their faces, instead they are shown sitting in the dark with their faces obscured. They are terrified Monsanto will think they were connected to Moe's business.

Now and then the movie depicts a happy scene, like the story of Joe Salatin, an organic farmer from Pennsylvania. His farming practices are humane and ecologically sound, using no pesticides or chemicals. His message is that Americans should return to old basic farming methods. Another happy tale is the cooperation of Stonyfield Farms and Walmart. Stonyfield is an organic farming industry. If the big supermarkets distribute the products, more organic food gets out into the world. An organic product is available to Walmart customers.

For the fans of drama, there is a

scene for you as well. When food safety advocate Barbra Kowalczyk, whose son died from eating tainted meat, talks about her son's illness, the viewer can feel the anger behind her words is anger at the system. She says: "We put faith in our government to protect us, and we are not being protected at the most basic level." The anger and desire to change things is close to the surface.

For fans of dark comedy, the following scene is appealing. After showing the feathery hell that is a poultry farm, farmer Carole Morison wipes her face and says casually, "That's normal." Horror is splashed throughout the film. It's scarier than a normal horror movie because you know that it's all real -the food system is just as terrifying as fiction. Mostly the audience gets the impression of the food system being evil, but there are enough uplifting stories to keep us watching. Positive messages appear on the screen at the very end, telling how we can help. So as the credits roll, we don't feel depressed

but slightly hopeful for the future.

Honestly, I believe that the film is flawless. It has stunning sweeping camera shots and a brilliant musical score. It draws out the flaws in our lifestyle by the throat and shoves them in our faces. It's dark and depressing, yet hopeful at the same time. Even though it is a documentary, we feel as if there are characters like in a fiction movie. You feel their personalities and understand their struggles. The movie is scary and gives out dire warnings of the perils of our food. But the most brilliant thing about the movie is that you don't have to be an animal rights activist to enjoy the film. Conservatives and liberals alike will see that our food system is twisted after this movie. The shot of cows standing knee deep in their own manure will affect you deeply, no matter if you are vegan or a beef eating machine. This movie is brilliant. It will shock you and change the way you live your life. *Food, Inc.* is a great movie.

*Food, Inc.* is rated PG for thematic elements and disturbing images

## GESTATION CRATES ON FACTORY FARMS

BY REBEKAH LAMB

In the last forty-three years there has been a dramatic change in the way pork has been raised. The countryside used to be filled with small family farms scattered around, and now we have moved to large factory farms that produce thousands of pounds of meat per day. The increasing need for meat has led to a new system of sow housing known as gestation crates.

Gestation crates are small rectangular stalls about 2.2 meters long, 0.6 meters wide and 1 meter high. This small size means that the sow cannot turn around and standing up or lying down is difficult if the sow is large (USDA livestock research unit). Although the dimensions vary in every farm, a gestation crate's basic structure is the same, with tubular metal frames and feed and water containers in the front (USDA livestock research unit). "Basically you're asking a sow to live in an airline seat...I think that's something that needs to be phased out." says Dr. Temple Grandin, an animal welfare advocate (HSUS).

Gestation crates give factory farms many advantages, such as housing more sows per unit area, minimizing aggression among sows, eliminating competition for resources (food), controlling body conditions of sows so they do not become

too thin or too fat, and providing safety for farm employees (National Pork Board). However there are consequences for the sows including, open wounds, pressure sores, infections and bloody gums from biting the bars of the crates (HSUS).

Many factory farms are phasing out gestation crates, such as Maxwell Foods, which is 100% gestation crate free. Cargill is 50% gestation crate free, and working towards the goal of being totally crate free (HSUS), as is Smithfield Foods which is 30% gestation crate free and working towards that same goal (Smithfield Foods). Eventually gestation crates may be totally eliminated; seven states in the United States have banned gestation crates and the European Union will eliminate all gestation crates on farms by 2013 (L. Hulbert, J.J. McGlone).

Luckily, because of the lack of factory farms in Vermont, there is no need to pass a law against gestation crates. "It's good to keep the law books short. Don't pass a law if there's no need." says Vermont representative Margaret Cheney during a phone interview. Hopefully, as the use of gestation crates declines, Vermont can continue to avoid factory farming of pork.

There are two ways to view a pig One way is to see it as just a source of food- a product with demand to be grown and sold cheaply. Another way is to view a pig as a living breathing animal that should be treated with dignity and respect while it is alive. Gestation crates are neither dignified nor respectful.

## HANNA BANANA: A LIFE STORY

BY GRACE DORMAN

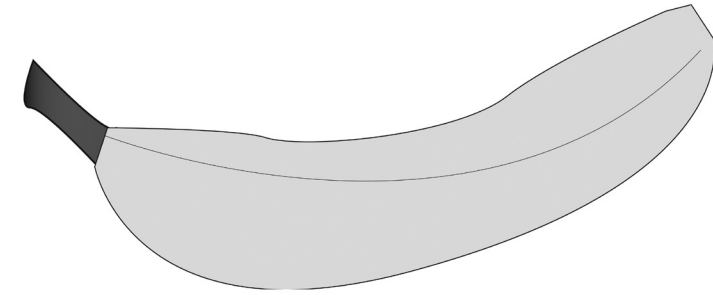
Have you ever wondered how your bananas end up in your fruit bowl? Here is a little story to help illustrate this, the life story of Hanna Banana. Hanna's mother, Catalina, is a young banana seed, about to be planted for the first time ever. She is at a banana plantation in the Costa Rican countryside where there are many other banana trees growing. She sees the rich warm soil being lifted up by a young man's dirty hand. She falls far down into the hole, suddenly the sky darkens and she is cut off from the humid air of the plantation. Catalina is watered every day, and one day she cracks from the hard casing of her seed. She begins to grow rapidly, more and more each day. Days go by and she finally sees the light. She reaches up and she feels the nice fresh air. After about ten to fifteen months of being watered by a young dirty boy in tattered clothing, Catalina reaches her

mature height of fourteen feet. Being full-grown, she is ready to grow bananas. She has four buds of small purple flowers; little birds come and pollinate them each day. Soon there are bananas sprouting out of the flowers. This is where the story of our little banana begins. Hanna is in a large bunch of nearly seventy other bananas. These are her twin brothers and sisters.

All the young bananas are small and dark green. Every day Hanna and her siblings become a lighter green, but not quite yellow. A young dirty, sweaty man, named Esteban shimmies up and down the tree to pick the large bunches of around sixty bananas to go to the factory. Hanna and her siblings are picked on an especially hot day in July with temperatures of 90° F. They go to the factory where the large bunches of bananas are broken up into small bunches of around six bananas. They all have small stickers put onto their bodies to mark that they were a certain brand of banana. Men throw Hanna, her siblings and numerous other bananas into

a crate. Hanna is very shaken up by this but carries on being her old banana self. A tall, fat man picks up their closed crate with a large forklift and carries them onto a huge cargo ship, where she starts her long journey to Texas.

Hanna meets another family of young green bananas. One of the bananas was named Lily. They become friends and talk about their banana problems and their banana solutions. Many bananas get seasick on the ship, which Hanna and Lily find revolting. Finally, the ship is docked and big men come and wheel



the crates away. Hanna and Lily are afraid when they arrive at the docks in Texas. They are unloaded and taken to a cold warehouse, where a broker will distribute them to a smaller warehouse. Hanna and Lily are two little cold bananas in a large cold brokerage house. Lily and Hanna can't talk so they use banana sign language. "What is going on here?" Lily signs. "I have no idea, but it's weird" Hanna replies. Their crate flips over and every banana is screaming. Everyone is confused and freaking out. All the bananas are very frightened. However, since most of them have matured into ripe yellow bananas they are calmer than the young green bananas. Finally, the commotion subsides and Hanna, Lily and all of the other bananas carry on with their banana conversations and banana lives.

After a few days Hanna, Lily and a number of other banana families are loaded onto a big, gas guzzling, eighteen-wheeled truck. It took nearly two and a half hours to make it to another banana warehouse. There is a thunderous noise

coming from the back of the truck, which stirs up great commotion inside the banana crate. The crate is wheeled into what Hanna could barely make out as a warehouse. "What is this place?" Lily asks. "It's called a warehouse." Hanna replies. Soon they hear a phone ring, "Yes sir, we will get you bananas as soon as possible." a young man in a shirt and tie declares. "Jeremy, we need a banana shipment now!" The man shouts across the warehouse. Hanna asks Lily, "What does banana mean?" She shrugs her banana shoulders. Their crate begins to move again, and is loaded into another eighteen-wheeled truck. The long journey to Massachusetts will take a little over one day. The long drive ends as they arrive at

another smaller warehouse. After only three hours in this warehouse, they are taken to yet another eighteen-wheeled truck. They pass a large green sign reading "Concord New Hampshire, next exit". After about ten more minutes of driving, the truck halts.

Finally, the back of the truck opens and the crates are wheeled out into the unloading area of a place Hanna makes out as a supermarket. "Where are we? Come on tell me!" Lily asks excitedly. "A supermarket." Replies Hanna. They are put into a big storage room in the supermarket where many other foods lie on large shelves. After a couple of hours, Hanna and Lily are brought out into the bright and busy store where they are placed in an open bin where shoppers can purchase them. Days pass and Lily is picked by an old woman. "Lily! No!" Hanna cries. "Bye Hanna!" Lily says sadly. The bananas are all deeply upset at their situation, but they carry on. Lily, however, is devoured by the old woman who declares her to be "delicious!" Another couple of days pass and Hanna too is picked. She is thrown into a bag and taken to a young woman's home by car. Hanna is carefully set into a bowl with some oranges, apples, and limes. Hanna lives out the last few days of her life, until she is chopped up into bite-sized pieces and drowned in milk with some little cereal bits.

## CELIAC DISEASE ON THE RISE

BY CELIA JENKINS

Did you know that in the last fifty years the number of patients suffering from celiac disease has quadrupled (Mayo Clinic)?

Celiac disease (also known as gluten intolerance) is a digestive disorder that triggers an allergic reaction to gluten (MedicineNet). Gluten is a family of proteins found in wheat products, such as bread, pasta, pizza crust and cake. When a person's body is unable to digest these proteins, that person will develop celiac disease (Natural Health). Gliadin is a protein in the gluten. When a person with celiac disease eats wheat, the gliadin becomes toxic, and causes an allergic reaction (MedicineNet). Although no one currently knows what causes the gliadin to become toxic, scientists are researching it. Villi, the small finger-like protrusions that line the inside of your small intestine, absorb nutrients into the bloodstream. When someone with celiac disease eats gluten it attacks the villi, destroying them. If the villi are destroyed your body can no longer absorb nutri-

ents, which could prove fatal.

People diagnosed with celiac disease suffer a wide variety of short term symptoms, such as skin disorders, nausea, diarrhea, constipation, and abdominal pain. However these symptoms usually go away when gluten products are not consumed. Long term effects caused by the destruction of villi include Type One Diabetes, Autoimmune Thyroid Disease, Down Syndrome, Microscopic Colitis, and Anemia (Natural Health).

Researchers are working to find out what causes a predisposition for celiac disease. There is evidence that celiac disease can be developed or inherited, also certain genes have been found to be common in individuals with celiac disease (Medicine Net).

Seven years ago the number of Americans diagnosed with celiac disease was only 40,000. Today this number has risen to 110,000 people suffering from celiac disease (Healthy Family). The big question is: why has the number of people suffering from celiac disease risen

so drastically in such a short time? In a recent study scientists tested people for celiac disease, then compared the results with samples of blood taken fifty years ago. They found that the people tested today are four times more likely to have celiac disease (Mayo Clinic). Some researchers believe Americans' increasing diet of wheat products has off set our digestive systems. Until recently humans did not have such an abundance of wheat products, so our digestive systems are not used to processing those products, and react badly as a result. The unnatural amount of pesticides used on much of our food might also be contributing to the rise of celiac disease. Because our bodies are not made to consume these chemical products, the pesticides could be harming our digestive systems. Another theory is that our environment is so clean that our immune systems don't have as much to attack, and therefore turn on themselves. This is known as hygiene hypothesis (Mayo Clinic).

Researchers continue to work toward finding the cause of celiac disease and work towards a cure. In the meantime increased awareness will help people in the struggle against celiac disease.

their birds.

Although McDonald's uses several poultry providers, the only one mentioned on their website was Keystone Foods (Meet). Keystone, as it happens, is actually the inventor of the chicken nugget (Our Company). We interviewed James S. Pomeroy, director of communications at Keystone Foods. Like any competitive business, Keystone Foods has many statistics and numbers that Mr. Pomeroy was

not willing to disclose. He presumably withheld this information because if another company got ahold of these numbers, they could try to undercut Keystone's low prices.

We asked Mr. Pomeroy about some statistics such as how many square feet per chicken, how many pounds of grain are fed to each chicken daily, and how much direct sunlight the chickens get each day. All he was willing to say about the conditions of the chickens at Keystone Foods' poultry farms was, "All the conditions are monitored very carefully. The chicken's survival and health is our top priority here at Keystone Foods." (Pomeroy) For any business that grows animals for eating, the pre-

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## CHICKEN MCMYSTERY?

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slaughter survival of their product must be a top priority. As Mr. Pomeroy put it, "Having [our animals] die before they are ready, is bad for business. It means that we could have made money off of [the chicken], if it was full grown, but if it's dead, we can't, 'cause it cannot be eaten, or sold." (Pomeroy) This is all the information that we could obtain from Keystone about how the chickens used in nuggets are treated.

The chickens still have a complex process ahead of them when they reach the processing plants. Here is what is involved: first a machine kills and plucks the chickens. Workers strip the chicken of all its "good meat", wings, breast, and legs. The good meat gets processed into buffalo wings, chicken tenders, and other poultry products. The carcass, bones, guts, and everything left over from the "good meat" removal, is put through a specialized grinding machine. This machine turns the carcass into a soup of chicken matter, called a meat slurry. At this point all the bones are imperceptibly small. The paste is pushed through a screen to filter out all the particles of bone large enough to



## THE ECOLOGICAL FOOTPRINT: WHAT IS IT?

BY MAYA JOHNSTONE AND MEGHAN SHIRLEY

If everyone lived the lifestyle of a typical American, we would need five planets to survive. According to The Ecological Footprint theory that was created by William Rees and Mathis Wackernagel in 1994, this is called an "overshoot" (Country).

An Ecological Footprint is a measuring tool which helps us plan and decrease our use of the world's resources by calculating how many planets we need to all survive. It helps us to discover the negative impact we are leaving behind by polluting the land, air and ocean.

William Rees has a PhD in population ecology from the University of Toronto. He is best known for co-creating the ecological footprint concept. Rees was awarded the 2007 Trudeau Fellowship Prize, an annual prize awarded by the Pierre Elliott Trudeau Foundation in recognition of outstanding achievement in innovative approaches to issues of public policy and commitment to public engagement (William).

Mathis Wackernagel is the other co-creator of the Ecological Footprint theory. He was born and raised in Switzerland; he has earned his Ph.D. in community and regional planning from the University of British Columbia in Vancouver, Canada, and a mechanical engineering degree from the Swiss Federal Institute of Technology (Mathis).

The concept of the Ecological Footprint is important because it helps us calculate or measure how many resources we use. Across the globe people are using more resources than we have available. This means they are leaving an outsized foot-

notice in your mouth. Most pieces of bone are small enough to fit through the screen and remain with the slurry. The slurry is dunked in an ammonia-water bath, to neutralize bacteria living in the chicken's intestinal tract (Snopes). The meat has bleached white flour added to it, to make the gray slurry look like fresh white chicken meat (Food). The slurry has artificial flavorings added to it, to neutralize the taste of the ammonia-water. Then the paste has a small amount of the water removed to make it more solid. This allows another machine to mash it into nugget shapes, which are then coated in bread crumbs and cooked. The ready-to-eat nugget is frozen, and eventually shipped off to a McDonald's where it is thawed and served to customers (Snopes).

It is always a good idea to know where your food came from, and how it was processed. Perhaps part of the reason it is so difficult to obtain information about the McNugget it because if people found out about the gory process, they might decide to go for a salad instead. Chicken McNuggets may be delicious; when you eat them perhaps all you want to say is "ba ba bum ba bah, I'm lovin' it," but it's still a good idea to know what is in your food.

print behind. It takes the earth one and a half years to renew the resources that we use in one year, a level that is clearly unsustainable (sustainable).

Although it is the best estimation tool up to date, the Ecological Footprint does have some limitations. The Footprint underestimates human impact on the biosphere. The biosphere is the life-supporting global ecosystem, where all living things depend on each other and the environment. The Ecological Footprint gives us limited information on

non-renewable resources and their impact on the environment because it focuses mostly on renewable resources (Sustainable). After reading this article, if you are wondering what your Ecological Footprint is, here are some cool online links for you to check out.

<http://www.ecologicalfootprint.com/>

<http://www.footprintnetwork.org/en/index.php/GFN/page/calculators>

<http://www.nature.org/greenliving/carboncalculator/>

The world population's Ecological Footprint is very large; we need to try to reduce it. Some ways to do that are: recycle, use renewable energy, replace regular light bulbs with compact florescent, turn off lights when not needed, don't waste food, and only take what you need. There are a lot of hungry people in the world and reducing your Ecological Footprint can help feed them. Taking these measures will help reduce your Ecological Footprint. Helping all humans reduce their impact on earth will make it a better place for the next generation.



## CHICKEN MCMYSTERY?

BY FLETCHER AMBROSE AND CARTER BLANCHARD

When was the last time you ate a chicken McNugget? Imagine yourself walking through the double glass doors of a McDonald's. You order a four piece McNugget meal, sit down and take a bite. You bite through the crunchy golden crust, and sink your teeth into the warm white meat of the nugget. The McNugget is just the right temperature, just like Goldy Locks' porridge, not too hot, not too cold, but just right. You try each and every one of the delicious dipping sauces, each one better than the last. The four McNuggets disappear as quickly as they appeared from behind the counter -there's more than one reason they call it fast food. The nuggets leave your mouth tasting salty and delectable.

This sounds pretty good, doesn't it? Thousands of Americans enjoy this snack every day, yet very few of them actually know what they're eating. The additives and processes in the making of the McNugget are a total mystery to most consumers. Very few customers even know where McDonald's gets



# THE ORGANIC VS. THE CONVENTIONAL DAIRY FARMER WHY THEY DO WHAT THEY DO

BY JACOB MAYER AND TRABYN FISK

Have you ever wondered what it means to be an organic dairy farmer? It seems like these days organic farming is becoming the new thing to do. Many people are now looking for organic products in stores. What does it really mean to be organic? To find out we interviewed three dairy farmers, David Ainsworth (conventional), Brian Manning (conventional), and Earl Ransom of Rock Bottom Farm (certified organic). Mr. Ainsworth's farm is located in Sharon, Vermont, and Rock Bottom Farm is located in Strafford, Vermont. Brian Manning's farm is located in Sharon, Vermont. He is currently not milking a herd and most of the things he does are very similar to what Mr. Ainsworth does. The only large difference between the two is that Mr. Ainsworth does not want to become certified organic, and Mr. Manning does. So, we decided to just use Mr. Ainsworth in this article.

David Ainsworth's farm has been in his family since 1867. While interviewing Mr. Ainsworth we found out that though he is not certified organic, he still follows many organic regulations. In the winter on the Ainsworth's farm the cows live in a free stall. The cows are able to walk around in an indoor area but are also free to go outside. On the first of May the cows are let out to pasture. Mr. Ainsworth says they love to run around because it is their first time in the pasture since October. During the month of May the cows are outside in the pasture in the day and in their stalls at night. In the summer, the cows live outside in the pasture. The cows' stalls have sand covering the ground, which serves as the bedding. Mr. Ainsworth says, "...that is what the cows like." Also, the sand doesn't hold bacteria like the sawdust bedding that some farmers use.

Mr. Ainsworth's farm consists of about 450 acres. There are about 100 acres of pasture land, about 114 acres of crop land, and the rest is wooded. He has on average 75 to 80 full sized cows



and a capacity for about 25 calves. That gives him approximately one cow per two acres. He says that most of the time his cows are in a herd. His herd consists mostly of Holstein cows. His milking times are 5:00 in the morning and 4:30 in the evening.

Mr. Ainsworth uses chemical fertilizers on his cornfields, but not on his hayfields. He fertilizes his hayfields with cow manure. He also only uses antibiotics when his cows are sick. He says that if you give the cow the antibiotics when it is born, like some large farms do, bacteria will become resistant to those antibiotics. He sometimes treats his cows himself, but other times he has to call his vet. His vet comes as called, which is on average two to four times a month. Mr. Ainsworth does not want to be certified organic because he believes it is not fair to the animals. He says that if he was certified organic and one of his cows was to get sick, the regulations of being certified organic would stop him from giving it the medicine. If he did, that cow and its offspring could never be certified organic. He also says that even though organic

products sell for more money, being an organic farmer carries many more costs.

Mr. Ainsworth sells to Agrimark, a dairy co-op in New England that owns Cabot. About half of his milk goes to cheese and the rest is sold as a liquid. Some of the milk is also sold to other companies to make ice cream and Greek yogurt. Mr. Ainsworth enjoys farming, saying, "If you want to be a farmer, dairy farming is the way to go."

We also interviewed Earl Ransom, owner of Rock Bottom Farm, and found out that there is not a very big difference between organic dairy farmers and conventional dairy farmers in terms of their daily practices. The big difference is between small family farms, conventional or organic, and large factory farms.

In the winter at Rock Bottom Farm the cows are in a free stall barn like at Mr. Ainsworth's farm. In the summer they are outside for about twenty hours. The other four hours are spent milking. His milking times are 4:30 a.m. and p.m. Mr. Ransom feeds his cow's corn silage in the morning and round bales at night. Also, Mr. Ransom uses sawdust bedding, unlike Mr. Ainsworth.

Mr. Ransom's farm has about 70 to 75 acres of pastureland 125 to 130 acres of cropland. He has about 55 full sized cows and 43 calves. He likes Guernsey cows because they are very self-sufficient. He claims to have about one cow per two acres. The heifers that are born from the mothers are raised and used as milking cows, 40 percent of the bull calves are raised at his farm for meat and the other sixty percent go to market to be sold.

Unlike Mr. Ainsworth, Mr. Ransom doesn't use chemical fertilizer or pesticides. The only thing he spreads on his crops is cow manure from his organic cows. Mr. Ransom also does not use any antibiotics. Instead he uses herbal supplements to substitute. He even said that at one point he had to perform acupuncture.

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## THE ORGANIC VS. THE CONVENTIONAL DAIRY FARMER

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Mr. Ransom's vet comes once a month and when he is called. Mr. Ransom gives vaccines to his cows by himself. Mr. Ransom processes his own milk at Strafford Organic Creamery and none of it goes to cheese. Instead, he turns it all into milk and ice cream. He really likes his job and says it takes a special type of person. We asked him the question, "What does being organic mean to you?" he answered, "It means to work in harmony with the animals and land, and work in their natural systems, to watch how that system works with people and not for people."

Mr. Ransom gets about \$34 per 100 pounds of milk and it costs him approximately \$24 to \$26 to produce that same 100 pounds. While, Mr. Ainsworth is predicting he'll get \$18 dollars for 100 pounds of milk this year and it costs him \$15 to \$16 to produce that same 100 pounds. In the store, an organic half gallon of milk costs \$6.09 and conventional half gallon of milk costs \$3.09. Organic milk may be better for you, but it's almost twice the price of conventional milk.

Relating back to the information that we collected, we discovered that there wasn't a large contrast between the two types of dairy farmers that we interviewed. The largest difference that we discovered between the methods of organic and conventional dairy farming was that organic farmers aren't allowed to use antibiotics, and organic farmers do not use pesticides or chemical fertilizers. Some people might think of conventional dairy farmers as the "bad guys", but in all reality there are only a few major differences between them and organic dairy farmers. Most of the time, conventional farmers treat their cows well. The only time when you would see pronounced dissimilarities would be if you were comparing a large factory dairy feedlot and a small dairy farm. In the end, Rock Bottom Farm and the Ainsworth farm were very similar.

## SUPER GROSS, SUPER REAL, SUPER-SIZE ME!

BY LILY CROWLEY AND JOCELYN JOHNSON

Since 1980, the total number of overweight and obese Americans has doubled, with twice as many obese children and three times the number of overweight adolescents. Many of this has to do with fast food restaurants, like McDonald's. In 2004 Morgan Spurlock made a documentary, called Super-Size Me, about the health effects of eating only McDonald's food for a month. In this movie, Morgan Spurlock wanted to see if eating McDonald's food for one month would have a negative effect on his health.

Before he started, he checked with three doctors; a cardiologist, a gastroenterologist, and a general practitioner. All three said it was fine for him to perform his experiment, but that his health might suffer. Before Morgan started eating, he made four rules for himself. His first rule: only have super-sized meals if he was asked, "Do you want to super-size that?" Rule two: he could only eat food that came from McDonald's, including the water. Rule three: he had to eat everything on the menu at least once. Finally, rule four: he must eat McDonald's food three times a day.

Before he began, Morgan weighed 184 pounds. The first day, he went to a McDonald's in Manhattan. The cashier asked him if he wanted to super-size his meal, and in accordance with his rules, he had to accept. Halfway through the meal however, he began to throw up. Five days later, Morgan weighed himself again and had gained ten pounds! That night, when he ate his McDonald's dinner he experienced intense chest pressure and had trouble walking up the stairs to his apartment. Three days later, he went in for his third weigh in, he had gained an additional nine pounds in seven days, for total of two hundred and three pounds!

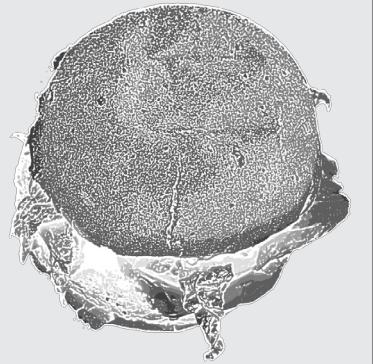
Morgan flew to Houston, Texas, to visit the "fattest" City in America. While he was in Houston, he was asked to super-size his meals five times out of the nine meals he consumed!

After Morgan got back from Texas, he went to his fourth weigh in and oddly enough he had lost a pound, putting him at two hundred and two pounds. About three days after his fourth weigh in he woke up in a panic because he couldn't breathe and was very hot. Morgan knew this wasn't good so he went to see his doctors. The cardiologist, gastroenterologist, general practitioner, nutritionist and personal trainer all said that his health was deteriorating and that he should stop eating McDonald's food before it did any more damage. However, Morgan did not intend to stop, so against his doctor's wishes, he pushed on.

On his last weigh in he had gained eight pounds in about thirteen days, putting him at a total of two hundred and ten pounds. Over the course of the month, he had gained twenty six pounds in thirty one days. Morgan was asked to super-size his meal nine times during the month, five times in Texas. By the end of the film, three doctors, a nutritionist and a personal trainer advised him to stop eating McDonald's food because his cholesterol was high and he had consumed over thirty pounds of sugar, that's about one pound a day!

It would take Morgan five months to lose twenty pounds, and another nine months to lose the last six pounds. Six weeks after this documentary premiered, McDonald's announced that they were eliminating super-size options, but they said it had nothing to do with Morgan's documentary.

Super-Size Me really captured how unhealthy McDonald's food is. This eye-opening documentary will make you think twice about eating McDonald's food again!



# SAVING THE WORLD, ONE BITE AT A TIME

BY ELEANOR FROST AND PAIGE BISSAILLON

How would you like to eat eggplant grown in Vermont instead of Doritos? Many people choose to give up sugary, fatty foods in order to be a localvore instead. A localvore is someone who eats food grown or produced within a range of their community. According to local eating blogger, Patricia McGovern, there are lots of benefits to eating locally. The way animals are treated on factory farms seems inhumane, but local farmers treat their animals with care. When you eat locally, you know where your food is coming from and how it was grown and cultivated. Eating and buying locally helps your local economy benefit. When you go to the grocery store and buy chicken nuggets, only 11.6 cents per dollar actually goes to the farmer (Pat Canning). When food is driven a few miles instead of being shipped halfway across the world, it uses less fossil fuels. In short, there are many valid reasons to eat within your community.

We decided to give eating locally a try for one week. The food we ate had to be grown or produced within a hundred miles of The Sharon Academy Middle School. Not only did the foods have to be produced locally, the ingredients had to be as well. However, we did make exceptions for spices and some condiments. Even hundreds of years ago, people were able to access spices, so typically, localvores choose to do so as well. Also, since it was winter, there was a limited amount of fresh produce. If we had chosen to eat locally during the summer,

there would've been more food available. We found that it was difficult for us to eat in the vicinity we had given ourselves, without having prepared in the previous seasons by putting food away.

The first day (Thursday) was fairly easy with very few temptations. We had just started eating locally, so we were open to the challenge. Our breakfast of eggs from Armstrong Farm and toast from La Panciata seemed like a sufficient and tasty meal at the time. For lunch, Paige had Butterworks Farm yogurt with homemade granola. Eleanor enjoyed two hard boiled eggs and bread. The next day was also fairly easy. We ate Cabot cheese, French toast, and eggs. We did not struggle to control our temptations until our school dance, where we were limited to eating and drinking nothing but water, while everybody else ate chips and drank soda.

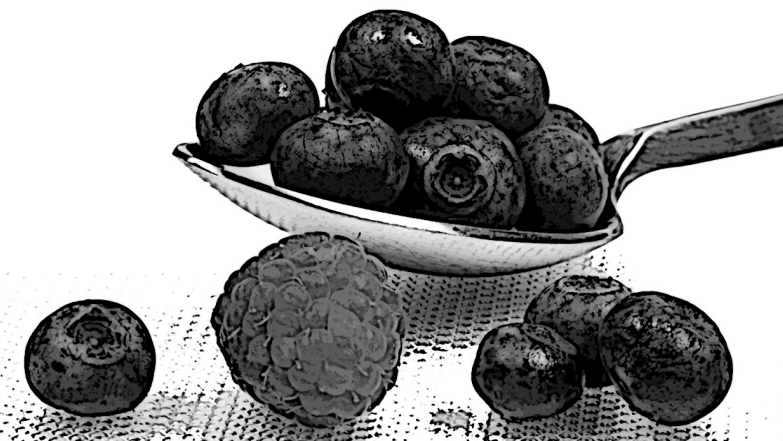
The third day was more difficult because we found that our diet was becoming very restrictive. Most of our meals consisted of eggs, apples and cheese, even our dinners. One thing that was especially hard was not being able to eat out anywhere. When we hung out with friends or went skiing we had to bring our own food.

These difficulties continued to grow on the fourth day of our localvore challenge. Eleanor went skiing, and she could not resist a warm cup of hot chocolate and a piece of candy. That was the first of many temptations that Eleanor gave into that ultimately led her to quit

the localvore challenge on the fifth day. However, she still chooses to eat mostly local foods. Paige also was struggling to continue eating locally. Her snacks and meals were becoming repetitive, but she managed to continue to the end of the seven day period.

The sixth day was relatively easy for Paige, now facing the challenge alone, although Eleanor was still eating some local food. Paige was finding the challenge much simpler now that she had found more local foods and recipes, such as muffins and smoothies. At last it was the seventh and final day. Paige was relieved for the challenge to end. Although she had learned a lot, she didn't really enjoy eating locally and looked forward to eating foods like bananas and chocolate.

Eating locally was a big challenge for us, partly because we tried during winter, but we have learned a lot through our experience. We have learned what really goes into our food and how it is made. Through this experience, we have come to the conclusion that eating 100% local is not a realistic goal for active teenagers. Instead, trying to eat mostly local is a more reasonable goal to set. You can easily find local dairy products and meats. Experienced localvore Patricia McGovern has a few tips for new localvores. She suggests freezing foods from other harvests, going to farmer's markets, and knowing what is out there. For us, there were ups and downs to eating locally.



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### The Organic vs. The Conventional Dairy Farmer: Why they do what they do

- (Image) <http://www.dreamstime.com/drinks-imagefree161950>
- Super Gross, Super Real, Super-Size Me!  
(Image) <http://www.dreamstime.com/veggie-burger-2-imagefree128236>
- Saving the World, One Bite at a Time  
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- (Image) <http://www.dreamstime.com/spoonful-of-blueberries-imagefree1>