

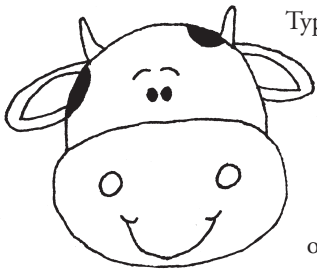
# OUR TIMES

## Food and Hunger in the World

A PUBLICATION OF THE SHARON ACADEMY MIDDLE SCHOOL

### What's the Beef, With Grass-Fed Beef?

Ginni-Lind Benjamin and Emma Foster



Typically when one thinks about cows, one imagines them living their lives grazing in a beautiful, wide open piece of land.

Sadly, this is not always the case. Cows raised for meat spend the first six months of their lives grazing. Conventional cows are later moved to feedlots and fed grain-based feeds (Beef Production). Recently, some farmers have returned to the older model of grass-feeding cows. These cows eat almost exclusively grass and continue to live on the farm until their slaughter date. The cows from feedlots and the cows from the grass-fed farms have different diets, making

the quality of the meats different.

Grass-fed beef comes from cows who are on a stable diet of mostly grass. They are

**“Grass-fed beef comes from cows who are on a stable diet of mostly grass. They are raised on wide open pastures, in small herds, with plenty of room to roam free.”**

raised on wide open pastures, in small herds, with plenty of room to roam free. When it comes close to the end of their lives, grass-fed

beef farmers send their cows to smaller humane slaughterhouses, where they are killed with a conscious effort to alleviate stress for the animals (Mr.Lane).

Conventional beef is raised on a feed that is mostly corn, and hormones and antibiotics are added to their diets, which are designed to help the cow grow bigger at minimal cost to the farmer (Gunnars). This desired financial savings and efficiency leads to some very unfortunate conditions for the cows. The cows are raised in cramped feedlots, among large herds with no room to move around. Conventional beef cows may be born on a farm and live up to the first year and a half of their lives eating grass, but when they reach no more than 16 months of age they are sent

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### About This Newsletter

The students at The Sharon Academy Middle School have spent the last several months studying food and hunger on a local, national, and global level as a part of the school's Integrated Curriculum. Each student researched specific issues relating to food and hunger that interested them individually and compiled what they learned in this newsletter. This collection of articles is intended to educate our community about the intricacies of this important topic from different perspectives. Just as researching these articles has informed our students about food and hunger, and encouraged them to examine more deeply the choices they make about food, we hope this newsletter will help you to do the same.

To learn more about The Sharon Academy Middle School and its innovative Integrated Curriculum, please see the back cover.



*This newsletter is dedicated in memory of Linda Blakeman, friend and parent of The Sharon Academy Middle School, and is produced with generous support by Dartmouth Printing.*

## The Sharon Academy's Food and Hunger Unit

With food and hunger being a large issue in this modern age, The Sharon Academy Middle School's unit teaches its students to make decisions about their food choices, and how to educate their friends, family and those around them. Through discussions, documentaries and the occasional lecture, students are encouraged to rethink their food choices and realize the impact food and hunger makes on their own lives, as well as those around them.

Of the six total units I've experienced in my two years at the Middle School, this one was easily the most impactful. Hunger, even here in our small, rural Vermont town of Sharon, is a large issue. One in seven children goes to bed hungry each night, and more and more people are relying on Vermont food shelves. The Sharon Academy teaches this unit because it is a topic very close to us, and an issue in our society that we will need to find a cure to, whatever it may be. While we may be only young teenagers, in this unit we were informed that even the smallest voices can make a difference. Just by choosing free-range chicken instead of factory farm makes a change in the way we eat our food. We've created this newsletter to spread the word, and inspire you to change your eating habits and think of what you can do to help solve the seemingly endless issue of world hunger.

While writing this reflection, I thought a lot about what it would be like to work or live in a city experiencing starvation, such as Mumbai, India. Learning about this topic really helped me create an idea for what I want to do once I graduate from high school and beyond, and it motivated me to look into what would need to be done to end world hunger. We have enough food on this planet; we've got plenty. It's just an issue of wasting good food. Thanks to this unit and this newsletter, I've begun to track the amount of food I waste, and I've attempted to bring down that amount drastically.

In science, I learned how to take advantage of the abundant sources of fresh fruits and vegetables in Vermont and lead a heavily plant-based diet, which is not only better for me, but the planet as well. In Language Arts, I began to understand the Irish potato famine much better when we read *The Irish Dresser*, a book about an Irish family experiencing starvation and emigrating to America in hopes of leading a better life. Finally, in Social Studies, the class where we worked on and created our articles, I learned more and more about factory farming, and what really goes on inside the windowless walls of a Concentrated Animal Feeding Operation processing factory. This newsletter opened my eyes to the real issues going on in the world around me. Being the editor-in-chief, I not only enjoyed reading the other articles my peers had written, but also being able to learn about other topics besides my one article. This food and hunger unit has inspired me, and I'm sure it has done the same for many of my peers. I hope our work can inspire you as well.

– Lowry Newswanger



## The Sharon Academy High School Offers A Sugaring Elective

Nikki Harrington

Vermont is probably the only state in the country that offers a maple sugaring elective. There are three schools in Vermont that offer this and The Sharon Academy High School is one of them. Other schools include South Royalton High School and The Putney School. This elective helps teach students about the “work ethic, time commitment, and science that goes into making maple syrup” (Potter). These are a few of the many benefits of teaching students the hands-on process of making maple syrup.

The sugaring project at the Sharon Academy High School takes place in the spring. Rob Stainton oversees the elective, the chemistry teacher at the high school, but it is mostly run by the students who participate in it. The elective is all about “the students getting to touch base on their culture of sugaring” (Potter). The elective also helps students learn how to make the “delicious golden substance that our wonderful state of Vermont is very well known for” (Potter).

Each year during the elective, the students start off by surveying the sugaring lines. These are plastic tubes that connect the trees to each other and to the tank where the sap is gathered. To survey the lines, the students must walk through the sugarbush to see what needs to be repaired or replaced. A sugarbush is a piece of land where sugar maples are tapped. The Sharon Academy high school has 250-300 taps on their 100 acre sugarbush. The students must count up their supplies once they have surveyed all of the lines. After they have purchased their supplies, the students tap the maple trees. The

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# Food Stamps: The Struggle is Real

Olly Skeet-Browning and Tom Bissailon

Have you ever known anyone who used government food assistance? We decided to brave the challenge of eating like someone on food stamps. This decision was made because both of us really wanted to see how hard the whole experience would be like, from shopping for our own food that week, to making our own dinners every night. The goal of this diet was to find out what it was really like to eat on a government assistance program, in order to empathize with the people who are in this situation. This experience was very enlightening for both of us, and made us much more responsible. Some of the responsibilities we had to take on for the week included rationing food, dealing with hunger, deciding

**“Though it may be possible to eat moderately healthily on food stamps, people would rather get more food for a smaller price.”**

what foods to purchase, and not being tempted to “cheat”. We only got \$35 for the week (Qualification), and so had to know what and what not to buy. Completing this diet showed us how to be more independent, but also that

just because someone is on food stamps, it does not mean that life comes easy for them.

In the last 25 years, the number of people using food stamps has more than doubled. Food stamps were first introduced in the United States on August 31st, 1964. SNAP also known as “Supplemental Nutrition Assistance Program” was created by Lyndon B. Johnson as a way of “... strengthening the agricultural economy and providing improved levels of nutrition among low-income households ...” (Supplemental). As of January, 2016, there are 41,170,732 Americans on food stamps (Statistic). 1 in 8 Americans is being assisted by SNAP each year (Population), which is costing the government and the taxpayers, a whopping \$69,800,000,000. The cost of SNAP has become an increasingly large problem. It is also largely contributes to the obesity epidemic in America. Though it may be possible to eat moderately healthily on food stamps, people would rather get more food for a smaller price. In our diet, we would have liked to eat healthily, but playing sports got in the way of that. Both of us have a very active lifestyle, and so we chose a carbohydrate oriented diet rather than a healthier one. We could have bought lots of fruits and vegetables, but would not have been able to make it through the week. It would also have taken a lot more thought to get the best prices



on fruits and vegetables. But we believe that it is possible to be somewhat healthy while on SNAP but only if people are educated correctly about nutrition and finding the best deal, can then they can make the right decisions for their diet.

## Our Stories

We came up with a fictional backstory to find out how much money we would have to work with. We went to SNAP’s website and figured out how much money we qualified for. Two brothers, Philip(19) and John(21) Hamilton, traveled from Chicago up to Vermont, to try and start a sugaring business. They found out that sugaring equipment was very expensive, and they could not afford to start a business. They rented an apartment and split the cost. John and Philip also both got jobs at separate McDonald’s, as shift managers. They each earned \$10.06 per hour, and worked 40 hours a week. This meant that they each acquired \$22,048 a year, and qualified for SNAP. As time went on, the guys realized it was necessary for them to save money for their dream sugaring business. They also needed to put money aside for other necessities like car payments, heat and water. After all this Philip and John each got \$35 a week to to spend on food. Since, in this scenario, they live in the same house, they decided to pool their money and pay for expenses together.

## The Shopping Trip

For most of our shopping, we went to the Price Chopper in West Lebanon. Hence the

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salary: \$10/hour	\$400 per week	\$1600 per month, after taxes \$1249.68
Food stamps		\$16
Total income		\$1,266
	Weekly income	\$316
Expenses:	Rent	\$500
	Phone	\$40
	Renters Insurance	\$10
	Car costs	\$100
	Car Insurance	\$100
	Gas	\$80
	Health Insurance	\$50
	Internet	\$50
	Total cost	\$930
	Weekly costs	\$233
	Food and fun budget	\$84
	Save and spend on other items	\$45
	Grocery store	\$35

# How Malnutrition Leads To Obesity And Diabetes

Olivia Swayze and Anika Eastman

There are 29 million people in the United States who have diabetes (Diabetes). It is a little known fact that this staggering number is partially caused by poverty and malnutrition. Malnutrition is an unhealthy condition provoked by not eating enough nutritious food (Malnutrition) and can lead to obesity; a condition where an excess amount of fat is stored in the body (Obesity). People who live under the poverty line, (which is \$11,945 a year/person) (Institute); receive an average of \$1.50 a day from food stamps (Eldred). These people tend to buy the cheapest foods in the greatest amounts they can afford. Unfortunately, cheap food is often highly processed junk food, which is full of carbohydrates, sugar, and fat, and containing hardly any essential proteins, vitamins or minerals. Processed foods are inexpensive because the government subsidizes their ingredients, such as corn and wheat. These subsidies make it more affordable for farms to grow these crops, which in turn make the food cheaper. Unfortunately, healthy foods like fruits are not subsidized as heavily because they are not commodities. This influx of processed corn and wheat into people's diets causes them to become overweight, obese and can eventually lead to diabetes (Eldred). Over the past 20 years, the number of people who are diabetic in the United States has risen dramatically, as well as the number of people who are obese.

Food Name	Serving Size	Cents Per Serving	Nutritional Facts
Brown Rice	¼ cup dry rice	18 cents	2 grams fiber, 4 grams protein
Whole-Wheat Pasta	2 oz. dried pasta	24 cents	7 grams protein, 6 grams fiber
100% Whole-Wheat Bread	2 slices of bread	18 cents	6 grams protein, 3 grams fiber
Nonfat Greek Yogurt	6 ounces of yogurt	89 cents	14 grams protein
Old-Fashioned Oats	½ cup of uncooked oats	13 cents	4 grams fiber, 5 grams protein
Frozen Vegetables	1 cup of frozen vegetables	25 cents	6 grams fiber, 4 grams protein, 115% DV Vitamin A, 8% DV Vitamin C
Frozen Edamame	½ cup of edamame	56 cents	10 grams protein, 8 grams fiber, 10% DV iron, 6% DV calcium

(Cheap)

The map conveys the obesity and diabetes prevalence from 1994 to 2010 in the United States (Maps). This map clearly exhibits how obesity and diabetes are correlated, and how these numbers are increasing steadily in the United States.

After someone eats unhealthy, processed food for a long time, they could become overweight and eventually obese. A person is considered overweight when they have a BMI (Body Mass Index) of 25 to 29.9 (What). A person is technically obese when they have a BMI of 30 or higher (Whitcomb). Once

a person becomes overweight or obese, they have a higher risk of becoming diabetic. Type 2 diabetes is a chronic condition that affects how one's body metabolizes sugar. A person is considered diabetic when they have blood glucose level over 125 mg/dL (Type 2). With

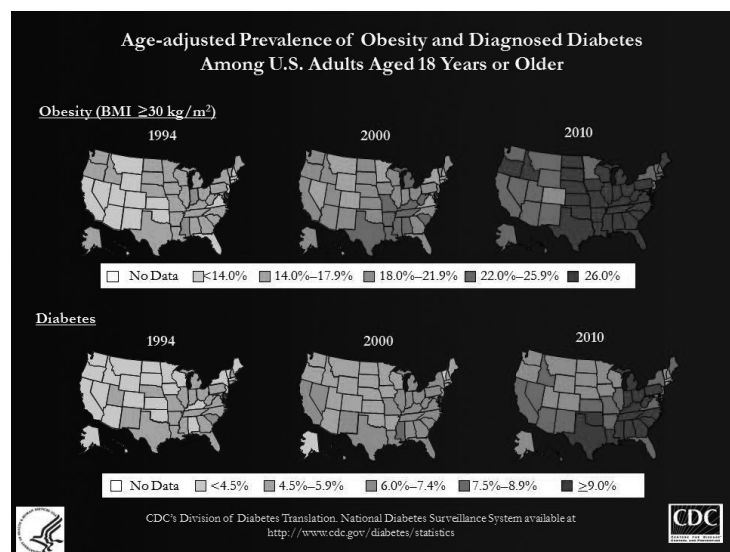
type 2 diabetes, a person's body either resists the effects of insulin or does not produce enough insulin to maintain normal glucose levels. Obesity causes insulin levels to rise and the body becomes unable to process sugars effectively which can lead to diabetes. Luckily, anyone can avoid this with some potential

**“Processed foods are inexpensive because the government subsidizes their ingredients, such as corn and wheat. These subsidies make it more affordable for farms to grow these crops, which in turn make the food**

lifestyle changes.

Obesity seems like a daunting problem in the United States, but there are a few ways that people can avoid becoming obese. One of the ways to avoid obesity is to exercise, which is an important part of an obesity

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## What's the Appeal of Veal?

By Noah Moran

Veal dates back to 2,500 B.C.E. The ancient Sumerians were the first civilization to create the idea of veal. They liked the taste and tenderness of the baby cow. Throughout the years countless others have felt the same way. It has become so popular that almost all grocery stores in the country sell veal. However, veal is not just about taste and tenderness. Many people eat this delicacy but don't understand the unintended consequences that go along with eating veal. Many of these young cows are treated with astonishing cruelty.

There are certain aspects about the process of killing a calf that may leave many consumers feeling guilty. The calf is stuck in a little wooden crate designed to restrict their ability of movement, which increases the tenderness of the meat (Veal: A Byproduct). Tenderness is not worth the suffering of an innocent creature. Due to their containment, their muscles don't mature because they are fed diet of mostly milk, which doesn't contain the necessary iron for the proper development (Veal: A Byproduct). This diet ensures that their muscles don't develop the way that they would by living in a field. Due to their lack of fully grown muscles the calves often can't stand by the day they are slaughtered.

Due to their cruel treatment and living space, the calf is often more susceptible to diseases; therefore the calves are given large doses of antibiotics. The extensive use of antibiotics fed to the calves will eventually result in a bacteria immune to antibiotics. Then bacteria can transfer over into the consumer (Is Your Meat). There would be no way to prevent the spread of the "super-bacteria". There are approximately 76 million cases of food borne illness in the U.S. each year (Is Your Meat). (The veal industry is not solely responsible for all of these cases, of food borne illness but it contributes.)

All dishes that are made with veal can be replaced with different meats. A popular dish that is made with veal is Scallopini. Scallopini means a thinly sliced cut of meat, proving that veal isn't the only meat that should be used in this dish. An additional benefit of using a different type of meat, such as beef, is the expenses. Veal is about \$4 more per pound than beef (Flank & Skirt Steaks).

Many people eat veal without realizing the consequences that it might create, such as supporting the cruel and abusive way that these calves are being treated, or the potential risk for a bacterial infection. It is not only cows that are being killed prematurely; chickens are usually killed at around the age of 7 weeks (Campbell). Lamb is slaughtered less than one year of birth, usually at the age of 6-7 weeks (Sheep and Lamb). Next time you are at the grocery store, purchasing meat, think about what you are actually buying and how it was treated.

## What's the Spiel with Veal?

By Anthony Dorman

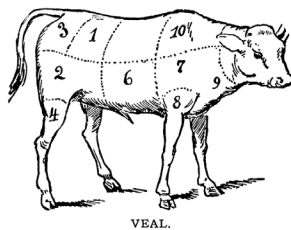
Did you know it is estimated that 1.9 billion pounds of veal were produced and consumed in the United States in 2008? Veal was created in 2500 BC by the Sumerians (London). Veal is the meat of a calf that is killed at a young age, the meat has less muscle so it's extremely tender. The reason people are opposed to veal is because they believe the calves are treated unethically. There also aren't many laws preventing large farmers from doing whatever they want with the calves. Veal is very popular because it is tender and delicious. Veal is a perfectly reasonable product and shouldn't be treated with such a visceral reaction.

Unfortunately, baby bulls don't have many uses on a dairy farm. Farmers don't need bulls because only one bull is needed to impregnate 40 to 50 cows (Halfman). This is how the veal industry and the dairy industry are connected. Dairy cows have to get pregnant and give birth to activate milk production. This means if a farmer has more than 100 cows, he only needs two or three fertile bulls to get all of them impregnated. Veal is also a reliable source of income for a typical dairy farmer. Veal can be harvested every time a cow gives birth, unless the farmer plans on keeping the baby cow or bull. A beef cow is slaughtered within two years of birth, while veal is slaughtered in six months (Animal Aid). Veal can be produced four times faster than raising a full sized cow. Veal offers a faster production for less cost.

Veal is an extremely healthy meat. It provides slightly less protein compared to beef, less saturated fat and more minerals. Veal has fewer calories per serving. Veal is also flavorful. If a recipe calls for veal it's because the meat quality is better than other meats.

People often feel a certain amount of guilt while eating veal, however they don't realize that most of the chicken and lamb they eat also comes from young animals. On average, lambs and chickens are both slaughtered within six or seven weeks of birth (Chickens Used for Food) (Sheep and Lamb). The most desirable veal, milk fed veal, is slaughtered at six months (Veal). Poultry is the most consumed meat across the world, but right behind it is goat, which is usually slaughtered from three to five months of age (Goat) (FAO's). If people are against veal, they should realize there are many other meats that come from young animals.

Veal is a very reasonable product and should be kept on the market for many reasons. It is fairly easy to produce and is also healthy. Consumers get upset about veal because it is killed at a very young age, but they do not realize how much more ethical it is compared to other animals that are slaughtered at a young age.



# “Super Size Me”

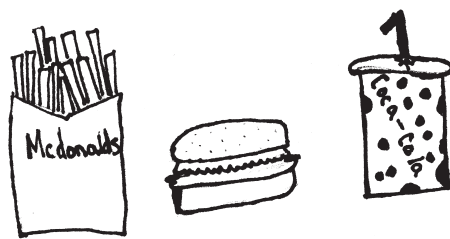
Hunter Campisi

*Super Size Me* is a documentary film made in 2004 by Morgan Spurlock. His movie is about obesity in America and how fast food contributes to American obesity. From 1980 to 2004 the number of obese American adults and children doubled, and obese adolescents tripled. One in every twenty Americans were obese 2004. To be obese, a person’s BMI, or body mass index, exceeds 30%, meaning that their body is composed of 30% fat or more (Obesity definition). Morgan showed how Americans could become obese by eating McDonald’s food.

Morgan decided to eat McDonald’s for a month straight to show how fast food leads to obesity. Morgan set these rules for himself: #1 He could only eat items from McDonald’s including his drinks, #2 He had to supersize the meal whenever he was asked, #3 He had to eat and drink everything on the menu at least once throughout the month, #4 He had to eat three meals a day.

Morgan needed to visit three different doctors to check if he was healthy enough to start the “diet”. Two health experts also tracked his progress over the month. When he started, he weighed 185.5 pounds, he had 11% body fat, and his cholesterol and blood pressure were normal. He was active and happy.

On the first day his meal was super sized and he got sick from eating it and threw up halfway through his meal. The second and the third day he was fine. About halfway through his month-long diet he began feeling depressed and became so exhausted that he could barely walk up the stairs to his apartment. At this point he decided to leave New York City and go to Houston, Texas—the fattest place in America. He tried looking for nutrition sheets at the McDonald’s where he ate at in Houston. Only half of the McDonald’s Morgan went to had a publicly visible nutrition sheet, and one fourth of the McDonald’s had no nutrition information



**“After eating McDonald’s for a month straight Morgan ended up gaining 24.5 pounds! He had a very fatty liver, his cholesterol went up by 65 points, and he was depressed and exhausted. He doubled his risk for heart disease and heart failure.”**

available at all. The lack of nutrition sheets demonstrated that McDonald’s doesn’t seem to care about our nutrition and that we don’t care about it either.

After Texas, he went to Naperville, Illinois and visited Madison Junior High School, to see what kind of food is served in American schools. The school cafeteria was serving both healthy and unhealthy food and drinks. Almost all the students consistently chose the unhealthy options such as pizza, french fries and hamburgers. Almost no one chose the healthy options like salads, fruits and vegetables. The school had banned all the soda machines, however the lemonade they were serving had just as much sugar as the soda. His visit to the school showed how the kids were deciding to eat the unhealthy food instead of the healthy food just like the people who eat at McDonald’s.

After eating McDonald’s for a month straight Morgan ended up gaining 24.5 pounds! He had a very fatty liver, his cholesterol went up by 65 points, and he was depressed and exhausted. He doubled his risk for heart disease and heart failure. Morgan had mood swings and had gained 7% body fat.

Morgan showed how eating fast food can lead to obesity and other health problems. I think that Morgan realistically showed how Americans eat. When this movie was made in 2004, fewer people cared about what they were eating, and they didn’t understand how bad fast food was for their health. After this movie came out, consumers began to think more carefully about eating fast food. McDonald’s stopped supersizing meals and added healthier choices to their menu like salads and yogurt with fruit.

This movie opened my eyes to the realities of eating excessive amounts of fast food. I like how Morgan presented his experience realistically. He filmed segments from his actual experience in McDonald’s restaurants ordering and eating food. I would rate this movie four out of five stars because Morgan could have put in a little more information about his everyday life during the experiment, like what he was doing when he was not eating. This movie taught me how quickly you can gain weight, especially if you eat McDonald’s.

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# GMO Corn is Eradicating the Monarch Butterflies

By Sophie Chesnut and Juliana Beraldi

Monarch butterflies are facing the threat of extinction due to the toxic herbicides sprayed on GMO corn and the pernicious GMO corn pollen, both of which contaminate the Monarch caterpillar's only food source, milkweed. Butterflies lay their eggs on the underside of milkweed leaves, one egg per leaf. This crucial plant generally grows near corn fields, making them an easy target for herbicides. Due to the highly toxic GMO corn pollen which is modified to contain the insecticide BT Toxin (Information on GMO Sweet Corn), and the excessive amounts of herbicide sprayed on the corn, the Monarch population has dropped from about 1 billion in 1990, to around 35 million in 2014 (After a 90 Percent Decline...). The lethal pollen lands on the milkweed and affects the caterpillar's digestive system, killing the caterpillar almost instantly, and the herbicides eradicate the milkweed completely.

Recently, many large scale farmers such as Monsanto, have begun to grow sweet corn that is genetically modified to be resistant to the herbicide Roundup and to carry the insecticide BT Toxin in its pollen. This unnatural type of corn allows farmers to spray unnecessary amounts of herbicide onto their corn, killing all weeds in and around their field, including milkweed. Similar to other GMO crops, it has not been assiduously tested to ensure it is safe for consumption. Monsanto is the largest player in the GMO corn business and produces 40% of the USA sweet corn market (Information on GMO Sweet Corn). Corn subsidies also encourage the growing and purchasing of GMO corn. The companies that participate in the growing of GMO corn receive ample government subsidies, which results in a decline in their supermarket prices and a rise in their subsidies because of their success. "One third of US subsidies go just to corn. That's 2x as much as we spend on wheat, the second most subsidized crop" (Bates). The increased subsidies create more GMO corn fields, therefore creating more infected milkweed plants and hurting the



butterflies at an increased rate.

Monarchs spend winters in the Midwest, which is where the preponderance of US corn is grown. Their period of migration corresponds to the time when corn is shedding pollen, making infected milkweed unavoidable. "According to the Biological Diversity, the Monarch population has dropped 90 percent over the past 20 years" due to their loss of food and habitat (Carroll). This loss is equivalent to losing the entire human population of the United States except those in Florida and Ohio (After 90 Percent Decline...). But why does this loss matter?

Butterflies are an essential part of the ecosystem and a major contributor in the process of pollination of many different species of plants. Because some Monarchs migrate up to 3,000 miles each year (Migration and Overwintering), they assist plants such as wildflowers, in the sharing of their genes with other plants over long distances. The sharing of genes helps plants become stronger as a species and gives them a higher survival rate. Bee populations are also declining, which leaves many plants to rely solely on butterflies as pollinators. As the overall butterfly population deteriorates, the plants that rely on butterflies will face the threat of extinction as well. The animals who use those plants as food will find themselves without a reliable food source, and the ecosystem will slowly collapse (Kearney).

Although the only real solution is to abolish GMO corn and the use of herbicides, there are still ways for Vermonters to support the growth of the Monarch population. Start

by not purchasing GMO corn, and look for companies whose products are certified by the NonGMO project as GMO free. These products include the foods made by Alexia, Annie's, Apple & Eve, Andros' Fruit Me Up, and Angie's Boom Chicka Pop popcorn (Information on GMO Sweet Corn). Another possible solution would be to create more Monarch wildlife reserves along the butterflies' migration route. Although it is not possible to rescue all butterflies with these reserves, large numbers can be saved in these environments. In addition, there are websites that aim to preserve the Monarch population by providing information on the butterflies, their migration pattern and their important contribution to the ecosystem. Monarch butterflies, while also being the state butterfly of Vermont, are an indispensable and irreplaceable species, and once extinct, will put our fragile ecosystem in danger of collapsing.

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# On Farm Slaughter In Vermont

Olive Sedon and Jackson Ziegler

On farm slaughter is an increasingly popular practice for many farmers in Vermont. On farm slaughter is the process of hiring a professional to come to a farm with a mobile slaughtering operation to kill and butcher animals. The farmer must hire a trained professional as this is state regulation. Currently, on farm slaughter is only legal in a few East Coast states, which include Vermont, Maine, and West Virginia. Vermont has a strong history of small farmers who used to slaughter their own animals, thus on farm slaughter is a popular practice amongst modern Vermont farmers (Evancie). When compared to a conventional slaughterhouse, on farm slaughter has some potential advantages for small Vermont farmers. Conventional slaughterhouses are mostly large industrial plants, which can have some different advantages, although these advantages are mostly for large scale meat producers who must process lots of livestock quickly.

When examined more closely, on farm slaughter seems more advantageous to the small organic and local Vermont farmer. On farm slaughter is generally cheaper and tends to suit the farmer who is on a budget. Slaughtering a cow at a slaughterhouse adds to the original cost of killing the animal by about \$1.50-\$2.00 per pound (White). This means the farmer is paying more money per cow for slaughtering and processing. The cost of on farm slaughter tends to vary by whom you work with, but it is generally less expensive to actually kill than larger scale operations. This is due to the fact that the farmer is not processing tons of animals (Haulenbeek). Most of the time, small farmers are not trying to efficiently slaughter many animals, but to save money and remain local (Haulenbeek). On farm slaughter is also typically more humane for the animals. The animal does not have to be transported to a slaughterhouse which can cause immense stress. With on farm slaugh-

ter, the animal is killed in the environment it was raised in, which makes the animal more comfortable and less stressed.

There are potential issues surrounding on farm slaughter. The sanitary conditions aren't always as strictly maintained and are not as consistent as a conventional slaughterhouse and this might result in E.coli or other harmful illnesses being passed to the workers and consumers. This disease transmission is a potential issue for any slaughtering operation, on farm or conventional, but since standards



are more flexible and less enforced for on farm slaughter, issues could be more prevalent there. The USDA has strict regulations regarding on farm slaughter, which only permits it in a few states (Haulenbeek). On farm slaughter is frowned upon by larger food companies, mainly because on farm slaughter makes local meat less expensive (Roland). Due to the fact that the processing costs are less, the meat can be sold for less money and the farmer will still profit from the sales. It would be logical that consumers would rather buy less expensive local meat than cheap conventional meat.

Many people are opposed to on farm slaughter and it is illegal in most states. The conventional companies have great power over the food industry in general. Also, conventional slaughterhouses are more efficient for large scale operations and have been FDA approved. Though the industrial side of slaughtering seems to be good for large meat producers, it is not optimal for the small farmers. Slaughterhouses charge very high prices to slaughter and butcher an animal,

making it impractical to take your animals to a slaughterhouse in the first place (White). Lots of farmers don't live in close range of a slaughterhouse and must drive fifty to one hundred miles with the animals to get to the nearest slaughterhouse (Miller). This can lead to lots of stress for the animal who must travel a long distance before dying in a strange environment. (Hurley) When a farmer hires an itinerant slaughterer, the animal is killed and processed in its home.

The concept of on farm slaughter seems to be most effective for the small farmer in Vermont. As this practice is currently legal in Vermont, farmers can already benefit. Vermont is special, along with two other states in the fact we allow on farm slaughter, but for states where it is not permitted, one potential idea would be to establish

small local slaughterhouses so farmers can still slaughter close to home. If local meat were cheaper due to on farm slaughter it would seem logical more people would purchase it, this helps support smaller Vermont farmers and their communities.

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# Animals or Objects? Abuse in Modern Day CAFOs

Aili Johnstone and Lowry Newswanger

Commonly referred to as Factory Farms, Concentrated Animal Feeding Operations (CAFOs) have become a familiar part of the modern agricultural industry, providing most of the animal products that Americans consume daily. These farms can house anywhere from hundreds to millions of animals at one time; most commonly dairy cows, hogs, and chickens (CAFO). Although particularly popular in the United States, CAFOs are present worldwide (Overcash). In America, Iowa produces the largest number of hogs, as well as the most egg-laying hens. California has the most dairy production of any state, followed by Wisconsin and New York, Georgia, California and North Carolina also have largest number of broiler (meat) chickens (Overcash).

While CAFOs initial intent was to be helpful by providing the public with mass amounts of meat at a cheap price, in reality some ethical questions about the health of the animals housed in them have been raised (History). Many of the animals in these farms are severely abused, and there are no federal laws that govern the conditions that the animals live in. For example, the animals are raised in very confined spaces, many cannot even turn around. Most will not even feel the sun on their backs or breathe fresh air until the day they are loaded onto slaughterhouse-bound trucks (Cantrell). The legal definition of animal abuse states that animal

cruelty is “the crime of inflicting physical pain, suffering or death on an animal, usually a tame one. It can include neglect so monstrous that the animal has suffered immensely, died, or been put in imminent danger of death” (Animal).

The close confinements and crowded conditions of CAFOs raise issues as related to animal abuse laws. These laws conflict with CAFOs is in the living conditions of the animals. Most of the animals suffer from boredom. Many pigs die from stress relat-

**“The majority of U.S. states exempt farm animals, or certain farming practices, from their anti-cruelty laws, making it close to impossible to provide even small protections to the animals on factory farms”**

ed syndromes due to the boredom before slaughter. The confinement causes stress and even aggression in the animals. Because of the potential for aggression, CAFO workers often inflict pain on the animals. Chickens are debeaked so they do not peck each other, a normal behavior for the birds in the wild. The

debeaking process involves a hot blade cutting through the beak, bone and soft tissue. Chickens living on broiler farms often suffer from hock burns, a condition that occurs when ammonia from the large amounts of animal feces burns through the skin on the back of the chicken’s legs (Kjaer). Similarly painful, pigs and cows usually have their tails docked, or cut, to prevent potential tail-biting due to boredom (Overcash).

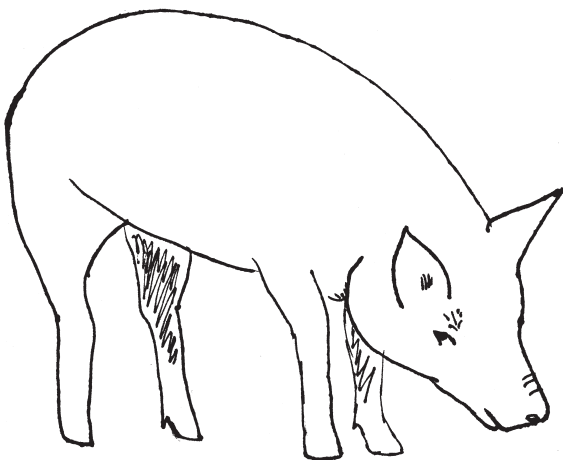
In a profit-driven CAFO, it is not uncommon for animals to be actively abused in these conditions as well. The

animals are no longer viewed as living, feeling creatures but rather as objects. For example, the dairy cow has a life of confinement without any exercise, thus creating a high chance of developing lameness, abrasions and bone deformities. After only two to three years of pumping out unnatural amounts of milk, the cow is culled for hamburger meat (Mercola).

California has some of the strictest animal abuse laws in the country, but also the largest number of dairy CAFOs. Strangely enough, the laws prohibit an animal from being overworked, yet the cows in a CAFO environment are constantly overworked by the farmers (Mercola). The same issue exists in Minnesota, whose laws also state that “overdriving, overloading, torturing or depriving any animal over which the person has control of necessary food, water or shelter” is considered criminally punishable (Police). In many broiler farms, chickens are deprived of water for many hours at a time. Especially in cage-free houses, where the chickens are forced to fight for food and water, which deprives the weaker chickens of resources and causing numerous deaths (Mercola).

So why are CAFOs not charged for animal abuse? The answer is simple: the majority of U.S. states exempt farm animals, or certain farming practices, from their anti-cruelty laws, making it close to impossible to provide even small protections to the animals on factory farms (Factory). Although all states have animal abuse laws, such laws are rarely enforced in favor of farmed animals due to Common Farming Exemptions. These exemptions state that if a practice is commonly done on factory farms, that it is legal. The only federal animal welfare law that applies to farm animals is the Humane Slaughter Act. This act states that animals should be unconscious prior to slaughter in order to ensure a quick and relatively painless death. However, poultry birds are exempt from this act. Since chickens and turkeys make up about 8.75 billion of the nine billion animals

*continued on page 19*



## What is the True Cost of Bottled Water?

Ben Weatherill

Do you drink bottled water? If you do, then you will want to know this: The movie *Tapped*, a documentary made in May of 2009, by Stephanie Soechtig, shows there are many problems with drinking water from a plastic bottle. It also emphasizes that recycling is important, because many people do not recycle. It tells us the average world recycling rate is 50%, but in the US, the recycling rate is only 20% (*Tapped*).

First of all, plastic bottles have toxic chemicals in them. The smaller plastic bottles are made of PET or PETE. PET/ PETE is the most common thermoplastic polymer resin of the polyester family. The larger plastic five gallon water jugs contain BPA (Bisphenol A). BPA is one of the most toxic chemicals known to man. Dr. King, epidemiologist and toxicologist, tells us that styrene, diethyl phthalate, dimethyl phthalate, and di-n-octyl phthalate are in PET bottles (*Tapped*). Dr. Frederick Vom Saal, Professor of Biological Sciences at University of Missouri (Hamilton) explains that at low doses, BPA acts “as an estrogen”, the primary female sex hormone (*Tapped*).

In addition to the chemicals in the bottles, there are other challenges that come with the



production of these bottles. The filmmakers take us to Corpus Christi, Texas, where a large plastic bottle factory is located. The factory produces toxic fumes linked to birth defects, lung cancer, sarcoidosis, and other diseases.

Recycling is essential to the world. If we do not recycle, the world will deteriorate into a big waste land with us living on trash and throwing it out the window. Nearly 40% of the bottles end up in landfills. Many of the bottles that aren't put in landfills and are not recycled, end up in the ocean and eventually on a beach. Only eleven states in the U.S offer container deposit legislation, or bottle bills, and only six have expanded to incorporate bottled water. The filmmakers tell us fifty percent of Americans do not have access to curbside recycling, which are recycling bins on the side of the road (*Tapped*).

The movie takes us to Fryeburg Maine, where the groundwater law is absolute

dominion, meaning the person with the biggest pump gets the most water. In Maine that means Nestle. In an interview in the film, a citizen of Fryeburg said, “Nestle is taking away the water and selling it back to them for a profit.” 40% of bottled water is just filtered tap water. The narrator informs us that, America's biggest bottled water companies Nestle, Coke, and Pepsi pump the public water for free, ship it, bottle it, ship it again, then sell it back to the people of America, for a profit (*Tapped*).

The movie made a big impact on my view of bottled water. It showed me how bad it is. It tells us what happens when people do not recycle. Big bottled water companies, specifically Nestle, take water from places without the community being aware of this resource depletion. In the future, I will not drink bottled water, unless absolutely necessary.

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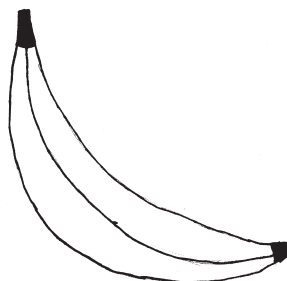
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• CREATIVE NON-FICTION •

## Blake The Banana

Ian Robertson

Hello, I am Blake and I am about to tell you all about my life as a Chiquita banana. I have not formed yet, but my bulb was planted in the ground and my mother tree is growing strong. She is called a mother tree even though bananas are perennial herbs not trees. A couple days later I formed and I am just a little finger. My home is on a banana vine in Costa Rica on a Chiquita Banana farm. We bananas live in tropical regions and the hot climate is perfect for



us (Where Bananas Are Grown). Here on my farm we are GMO bananas, which means I am a genetically modified organism, so I will be larger than a normal banana. I have been growing for one and a half weeks now and I am getting bigger. Two days ago some of the smaller fingers and our pretty flower got cut off, so all the tree's energy goes to me and the remaining fingers.

*continued on page 19*

# Bacon: The Real Killer

Quinn Biron Warren and Ben Rodis

Bacon and cancer. Usually those words have no connection. However, a recent study by the World Health Organization (the W.H.O.) shows that processed meats may be linked to 34,000 cancer deaths per year (Gallagher). This potential increased risk for cancer is concerning to policy makers in the UK because, currently, for every 1000 people in the UK, about sixty will develop bowel cancer (Dunlop). With this new knowledge, those numbers might be reduced by eliminating certain foods.

The BBC has recently reported on the World Health Organization study that show some types of meat are more carcinogenic than others. Red meats, which are a bit healthier than processed meats, include fresh and frozen beef, lamb, and pork. Red meats are somewhat carcinogenic, but not as much as processed meats which are, by far, the most dangerous. These include, but are not limited to, salami, bacon, hot dogs, pastrami, and sausages. (Gallagher)

The reason that processed meats contribute to higher cancer risks is a chemical used in preservation, Sodium nitrate. Sodium nitrate is naturally found in vegetables, but is commonly added to processed foods. When we eat green veggies, they have large amounts of Sodium nitrate as well, so why doesn't it hurt us? Sodium nitrate, when it comes into

contact with gastric juices creates Sodium nitrite, which creates nitrosamine. Vegetables contain antioxidants, which control the creation of nitrosamine, which is harmful (Nitrate). These antioxidants in the veggies serve as a protection against the carcinogenic nitrosamine, but the meats do not have these antioxidants. In general, cancer brought on from processed meats takes three forms: bowel cancer, pancreatic cancer, and colorec-

Colorectal cancer, the most common of the three, starts in the colon, and causes changes in bowel habits, and abdominal pain (Colorectal).

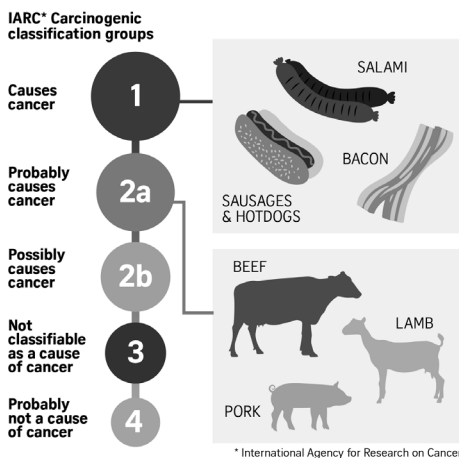
There are many people who disagree with the conclusions of the World Health Organization's study. Industrial food companies that want to stay in business, and people who enjoy processed meats, tend to argue against the studies and their results. The North American Institute of Meat states that the World Health Organization completely ignored multiple studies proving that processed meats are entirely safe for human consumption (Cutler). Meat producers interviewed by Fox News say that the W.H.O. is massively over exaggerating the risks of increased bacon consumption. They comment that "cancer is a complex disease, not caused by a single food." (Cutler) The assertion by the World Health Organization study states that eating two strips of bacon a day will increase an individual's risk of cancer by 1% over the baseline of 6% (typical rate of cancer amongst the general population). Therefore, according to the W.H.O., two strips of bacon per day increases the chance of getting colorectal cancer to 7%. While this is not a significant increase, it is still worth paying attention to if one wants to avoid increasing their chances of getting cancer. To be clear, this may not seem like a dramatic increase, but it is statistically significant enough for the W.H.O. to issue its warnings, and certainly worthy of notice for consumers.

What about the Food and Drug Administration? So far, the FDA has not released any information about the connection between cancer and processed meats, but there are a few other groups trying to investigate this link between nitrates and cancer. As part of the World Health Organization, The International Agency for Research on Cancer (IARC) is doing research on the cancers caused by these processed meats. The W.H.O. is spreading awareness by posting its studies and

**"So far, the FDA has not released any information about the connection between cancer and processed meats, but there are a few other groups trying to investigate this link between nitrates and cancer."**

tal cancer (colon cancer) (W.H.O.). Sodium nitrate has specifically been linked to bowel cancer, which starts in the large intestine and causes abdominal pain, blood in the stools, and more frequent stools (Bowel). Pancreatic cancer causes pain in the stomach or back, jaundice, and/or weight loss (Symptoms).

## WHO classification of red and processed meats



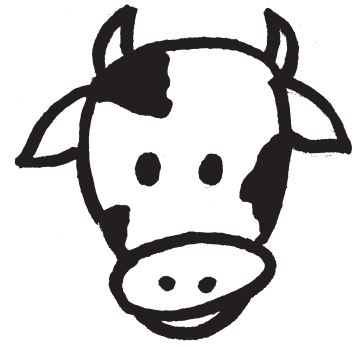
## DANGERS OF PROCESSED MEAT

- COLORECTAL CANCER**  
According to the IARC, each 50g (e.g. one to two slices of ham) portion of processed meat eaten daily increases the risk of colorectal cancer by 18 per cent.
- HEART DISEASE**  
For each 50g increase in daily consumption of processed meat, the risk of heart failure incidence increased by 8 per cent and the risk of death from heart failure by 38 per cent.
- INCREASED RISK OF DEATH**  
A study by the National Cancer Institute of 500,000 people found that those who ate red meat daily were 30 per cent more likely to die during a 10-year period than those who ate very little red meat.
- PROSTATE CANCER**  
Men preferring red meat, fat and processed grains were 2 ½ more likely to die from cancer-related cause.
- BREAST CANCER**  
Researchers at Harvard University analysed data, and scientists estimated that among women who ate the most amount of red meat, there were an extra 6.6 cases of breast cancer for every 1,000 women over 20 years of follow-up.

Source: BCC, CBC NEWS, THE GUARDIAN ST GRAPHICS

*continued on page 14*

# Billings Farm: A Profile of an Educational Farm and How it Compares to Industrial Dairy Production



Novah Conway and Macy DeMara

Have you ever wondered about the difference between a small educational dairy farm and large industrial dairy farms? Many people believe there are countless issues with industrial dairy farms and ask many questions. For example, where does this milk come from? Or, are these companies treating their cows humanely? These are all questions you should be asking yourself while purchasing dairy products at the grocery store.

To compare Billings Farm, a small educational farm to industrial dairy farms, we interviewed Alayna Perkins, the Assistant Farm Manager of Billings, in Woodstock, Vermont. Billings Farm was founded in the 19th century to inform the public about traditional farm practices. While it is clear that the Billings Farm and Museum is not a typical farm in the financial sense, it is similar in size and production to other small dairy farms in Vermont. This farm was chosen because of its educational focus to help facilitate a conversation about these types of farms.

Billings Farm has an interest in teaching the public about farming in Vermont. They are a conventional farm, meaning they give their dairy cows antibiotics when they are sick, but they do not use or sell any of the milk that the sick cows produce. Billings has a total of 300 acres of land for their production of hay, alfalfa, corn silage and for their many cows, horses, and sheep to graze. To grow the hay, alfalfa and corn silage, the employees at the farm recycle the cow manure to add nutrients to the soil which help produce healthy crops.

The cows at Billings stay inside for the winters because it can be slippery, and as Perkins said, “cows are not graceful animals, and they will get hurt.” Although the cows do not get to spend time outside during the winters, they have comfortable foam mattresses and sawdust bedding. In the spring time, the cows go outside at night and come back inside in

the morning to be milked. Dairy cows in industrial farms do not receive the opportunity to eat grass or go outside, many of them can barely turn around. Billings Farm feeds their cows a nutritious diet of grain, alfalfa, and corn silage, along with letting them graze on grass as they are supposed to do, according to their biological needs (Perkins). In industrial farms, cows are fed a diet of mostly corn, as the products fattens them quickly and is much cheaper to get than hay or silage (Eisenbraun).

Billings Farm sells some of the products they produce. They sell their excess hay to other farms. The farm also sells 60% of their milk to a company called Agrimark for the making of Cabot products. The other 40% goes into making their own cheese and selling it on their farm (Alayna Perkins).

Industrial farming is very different from small scale farming in Vermont. Industrial farms may seem efficient and smart, but behind those milk and cheese labels, is a shocking reality. Large dairy companies, need both money and efficiency to run their business. In order to remain efficient, dairy companies often do not treat their animals humanely, and instead treat them as if they were just a commodity. For example, workers often kill sick animals instead of caring for them, and bringing them back to health. In a typical industrial farm, dairy cows are confined in small enclosed spaces and “squeezed to the absolute physical limit to maximize milk output.” In most cases this means the cows are living in “confinement without exercise or stimulation.” (Mercola) “Over 90% of U.S dairy cows are confined in primarily indoor operations, with more than 60% tethered by the neck inside barren stalls, unable to perform the most basic behaviors essential to their well being.” (Capps) Because of this confinement, dairy cows develop deadly diseases and infections.

As the desire for profit increases, industrial farms grow and use GMO's to increase production. Cows are genetically modified to produce twelve times the amount of milk they would normally produce to feed their calves (Capps).

Billings Farm is different than large industrial farms, but it is also different from other small conventional farms. Billings Farm is focused on the public's education and caring for their animals. Billings teaches the public about historical farming and how to produce dairy products to sell. The farm uses techniques that were used in the 1800s to give the visitors an idea of what farming was like in the past. As for bigger industrial farms, making a profit is more important than teaching others about what they do for a living.

Rather than focusing on exploiting their cows, Billings is more interested in having healthy, comfortable animals. Perkins's approach to dairy farming is simple: “When you're dairy farming, what you put in is what you get out. If you have your animals in a small enclosed space, and you don't treat them well, they're not going to perform well for you. What we can do as farmers, is give them the most optimal comfort, essentially as long as your animals are comfortable, they're going to do their job and make you a profit.” (Perkins)

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# What Do You Know About Hemp?

Maya Aziz and Alicia Radicioni

“Alice in Wonderland” was originally printed on hemp paper (West). Hemp is an important resource that can be used in a variety of products. Throughout history hemp has been an important resource used in a variety of products., agricultural subspecies of marijuana, but it is used differently. Countries around the world use hemp as a source of food, a cure for depression, and as an ingredient in soaps (Brandi). Hemp originated in central Asia in 2,800 BCE, was planted in Chile in the 1500s and later in North America. When hemp originated, native people used it in medicine and ate the seeds of the plant (Encyclopedia Britannica). Every part of a hemp plant can be used for food, clothing, rope, or body care, yet it is illegal to grow in the United States.

Hemp is in the same plant family as marijuana, but it does not have the same psychotropic effect as marijuana because of the amount of THC. THC stands for Tetrahydrocannabinol (Bradford), the chemical in marijuana that makes you high. Hemp has 1% THC and marijuana has 20%, therefore with such low THC levels, one cannot get high off of hemp. Hemp also contains a high percentage of another chemical, CBD, that blocks THC absorption. (West). Hemp is not marijuana, in fact, it could be called “anti-marijuana” because of its high CBD levels. There are other differences between hemp and marijuana: hemp grows upward and marijuana grows outward. This growth pattern is the only distinct, visible difference between the two plants.

There are many benefits of hemp. Hemp seeds are full of omega-3 and omega-6, which are essential fatty acids. The human body can make most of the types of fats it needs from other fats or raw materials, but not omega-3. (omega-3 fatty acids).

Hemp is a good food product by helping the body get the necessary omega-3. Hemp seeds are a protein that is easier to digest than meat, eggs, cheese, milk, or other high protein food (Hemp Seed Benefits). Hemp seeds

**“Hemp seeds are full of omega-3 and omega-6, which are essential fatty acids. The human body can make most of the types of fats it needs from other fats or raw materials, but not omega-3. (omega-3 fatty acids).”**

also have oils that can be turned into butter, milk substitutes, protein powders and soaps. The oil is also put into body care products like lotions, body washes, and cosmetics adding moisturizing properties to skin products. Additionally, the hemp fibers can be used for paper, yarn, fabrics, rope, and carpeting. The fibers are essential for materials like rope because they are very strong and do not stretch. Hemp can be made into fabric, which is softer and much stronger than cotton (Marketing Office of Ag.).

Hemp has a compelling history in the United States. George Washington, Thomas Jefferson and other founding fathers grew hemp. Jefferson even smuggled hemp seeds from China, to France, and finally to America. All schoolbooks were made from hemp or flax paper until the 1880s. From 1631 to the early 1800s, an American citizen had the option to pay taxes with hemp if they did not have the money. Colonists were encouraged to grow hemp and the government even made it illegal to refuse to grow it during the 17th and 18th centuries yet, in Virginia from 1763 to 1769, a colonists could be put in jail for refusing to grow hemp (Listverse). Hemp is currently illegal to grow in the United States because of its similarity to marijuana. It is a very similar plant, but does not contain the same amount of THC. In the United States, hemp is just as illegal to grow as marijuana (Martino). Hemp should be legal because it has a variety of benefits. Hemp fields produce a great deal of plant material in a short period

of time. Environmentally, hemp is a safer crop to grow than cotton because cotton is a soil-damaging crop and needs many fertilizers, herbicides and pesticides. One acre of hemp will produce as much as two to three acres of cotton (hempfarm.org).

Growing hemp should be legalized in the United States. It is useful for many products, such as clothing, rope, food, bath and body care. Hemp is better for the environment than cotton, and much stronger and softer when it is made into a fabric. Although hemp looks similar to marijuana it is not a drug and therefore hemp should be legal to grow as long as the grower has a license and the FDA checks in on the producers every few months to make sure they are not growing marijuana. With careful controls and monitoring, there is no reason why hemp should not be grown and used in the U.S.

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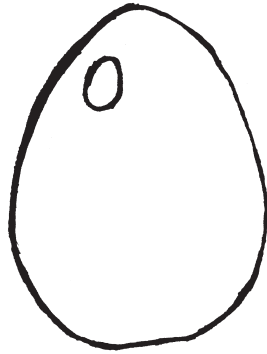
# EGG TO NUGGET

## The Story of a Factory Farm Chicken

Jacob Ruben

The next time you bite into a chicken nugget, here is the story you should know about: Ranch is a factory farm chicken being raised for his meat. Barb O. Que and Sweet N. Sour are Ranch's best friends (at least for the next 42 days). All three chicks hatched out of their eggs at the same time and were met by a blinding light (Chickens). After birth, Ranch's foot felt screaming pain when he took his first steps. He looked down and saw that the slats in the floor caused this pain. Through the holes he saw another platform under him with more screaming chickens.

Next to him are two other chicks whose names are Barb O. Que and Sweet N. Sour. Many days pass and the chickens grow and grow. By the 37th day, a farm-raised chicken would weigh 940 grams, but a factory farm chicken like Ranch weighs in at 2900 grams (Animals). During these long days, the chickens eat protein rich feed and just sit around. Their feed causes them to grow so fast that their bone structure cannot keep up with their rapidly growing bodies. This makes it difficult for Ranch and his friends to walk



and move around.

One day Ranch hears the rumbling of a tractor. He immediately notifies Barb and Sweet. The three chickens run to the other side of the indoor pen when they see the masked men picking up the other 20,000 chickens and throwing them into small crates and shoving them into a trailer to be slaughtered (Animals). Ranch, Barb and Sweet try to run, but with the feed they've been fed it makes it almost impossible. The farmers are quick to pick up the chickens and force them into a crate. When they arrive at the chicken factory they are hung on an assembly line by their feet. As they move down the assembly

line they hit a shock plate to render them unconscious. After that, they go through a blade to slit their necks, kill them and drain their blood. Next they are dropped into a boiling vat of water to sanitize them. After that they are brought to a machine that plucks off their feathers known as "the rubber fingers." Once the feathers are taken off, the chickens are cut up into the useful parts for the nuggets. This includes all white meat and a little bit of skin for flavor (Joseph). The meat is ground up. They are put into a mold and lightly breaded. Then they are packaged and shipped to McDonald's where they are fully cooked (Joseph).

The next time you dip your chicken nugget into barbecue sauce think about the process that these poor factory farm chickens go through.

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### Killer Bacon

continued from page 11

information on the Internet. So while the FDA has issued no rulings, the USDA is examining its regulations around nitrates in meat to see if any changes in the regulations are needed, though no action has been taken so far on these requirements. (Gallagher)

The American Cancer Society recommends a diet low in processed meats and high in fruits, vegetables and whole grains. Overall, consumers should be aware of the risks of processed meats, but understand that a hot

dog every now and then will not increase their cancer risk. So go ahead and enjoy a few slices of bacon with your eggs, but don't overdo it.

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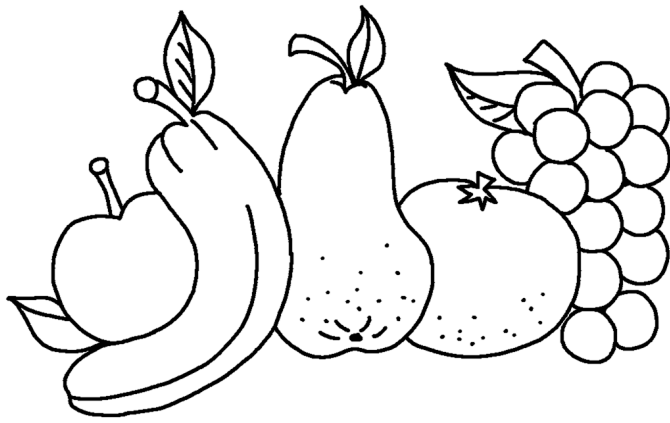
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## Local vs. Organic

Laura Shands

When shopping at the grocery store, it can be hard to understand what the food packages say and which type of food is better. Many people want to buy products that help local farms stay open, also to ensure the planet stays healthy and the animals and people working there are treated well. Many consumers get confused between local and organic; which one is better for my health? Which one is better for the environment? What's the difference?

Local and organic foods both have advantages and disadvantages. When farmers grow or raise organic products, they have to abide by certain rules. The rules state that if they are raising animals, they must be raised on certified organic land, must be fed certified organic feed, no antibiotics or added growth hormones are allowed, and must have outdoor access (Flower). In other words, the farmers can't artificially improve their animals to make their product better. When growing

crops, there are only certain amendments, or substances, they can put on their crops. Amendments are added to soil to improve growth. Some examples of amendments are animal manure, compost, and peat (decomposed vegetable matter). Organic farmers are required to use only amendments they found in the natural environment for it to be an organic amendment. If they chemically alter the substance, it's no longer organic (Barsotti).

Normally, locally grown food is grown within one hundred miles from your house (DeWeerd). This ensures that the food stays fresh and absolutely local. The goal of eating locally is to support your local farmers and know where your food is coming from. Additionally, many people try to eat locally to help save the planet from carbon pollution caused by transporting foods over long distances. While some organic foods might be local, many have to travel hundreds of miles to get to the consumer. So, while local food may

not be organic, it has many positive effects. Because the food is not organic they don't have to follow by the organic rules. There are many local farms that grow organic food, but are not certified organic. This means that they

**“The goal of eating locally is to support your local farmers and know where your food is coming from.”**

can't advertise their foods as organic or legally call them organic (PBS Foods).

So which is better, local or organic? The best option for your health and the environment would be to purchase foods that are both organic and local. This way people are eating the freshest, most flavorful and healthiest foods. They would be locally grown, and would not have any added chemicals, hormones or antibiotics. If people chose to eat local and organic food they would have to pay more because the food they are eating is not subsidized. Industrial foods are subsidized, meaning the government pays the farmers to produce a mass quantity of an individual crop, so the industrial foods made from this product are cheaper. By eating organic and local, consumers would be eating outside of the industrial food system. This would be a more expensive diet, but it would be worth the change.

Below is a chart about some of the differences between local and organic foods.

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	Local	Organic
Environment	Sometimes local farms use pesticides to ward off pests but sometimes those pesticides end up in our rivers from runoff. These toxic chemicals are not healthy for consumption.	Organic foods are sometimes shipped across the country. The fossil fuels used in the trucks and planes to deliver the goods pollutes the air.
Cost	Potatoes at the South Royalton Market cost \$1.49 per pound. Sometimes local foods can cost more because they are from a small farms.	At Price Chopper, organic potatoes are \$1.20 per pound. Organic can be more expensive due to the growing process, but industrial organic allows prices to be lower than some local foods.
Access	Seasonal foods (such as apples) will be in short supply in the seasons when they can't be grown locally.	Like local foods, organic foods can become unavailable due to a shortage.

# A Kenyan Hunger Experience

Paige Shirley and Sophia Digiuseppe

Sophia and Paige are both middle schoolers at The Sharon Academy. For a week, we have been eating like Kenyan peasants with a limited calorie intake of 1700 calories. We wanted to experiment with this country because one of the field trips we took this year with our school to, Heifer International. The houses at Heifer are what made us think of Kenya. We have eaten ugali, rice, beans, eggs, potatoes, and githeri with chicken, (which is just chicken corn and beans)(Kenya). Most of what we have eaten was ugali, which is cornmeal, water, and salt. We got most of our food in Randolph at Chef's Market. Normally we would eat a diet of between 2000 and 2200 calories per day(Calorie). We both thought that eating like this would be a lot easier than it was. "Nothing's turning out like we thought it would be." We had less energy, we have been less focused, and more moody.

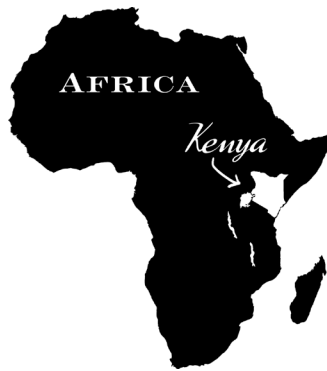
## Day 1: Thursday January 21, 2016

Paige's view- I woke up at about 6:00. I got ready quick so I had time to make my rice, beans, and eggs. I had slept over at Sophia's the day before to make our rice and black beans for the next week. I scrambled my 2 eggs and heated the beans and rice up in the microwave and went to school. I was going to wait till I got to school to eat my breakfast. I got to school around 7:30. At about 7:45 I had my first bite of the beans and rice. I almost spit it out. They were under cooked. I pushed through and ate all my eggs and about half of what I was supposed to eat. Our planned breakfast was 1 cup of beans and one cup of rice each day, which was way too much for me. At 10:30, I had mashed potatoes, which filled me up pretty fast. I went through two other classes and it was time to have ugali with curry sauce. Sophia and I went to heat it up. We each took a bite, and realized that we had made a mistake. It was mealy, watery, and undercooked. I ate another bite and threw it out. I went through the rest of

the day hungry and tired. When I got home I had to make my dinner. We were having ugali again but I decided to pan fry them without the curry sauce. When finished warming up, I took a small bite. It was genuinely scrumptious (for especially being just cornmeal and water.) I grabbed some soy sauce and tasted it. It was even better. I went to bed satisfied and ready for the next day.

## Day 2: Friday January 22, 2016

Sophia's view- This was the second day on this diet and I was already hungry and tired. I had the same thing for breakfast as the day before. For snack I had mashed potatoes. They were not ideal and really dry; I didn't want to eat them. After snack I was tired and still very hungry. I felt like I didn't get enough sleep the night before. Paige is sleeping over tonight and we are going to school together



the next day. For dinner we had chicken breasts with beans and corn. That was actually better than I thought it would be. After dinner I had a cup of tea because it's the only drink we can have besides water.

## Day 3: Saturday January 23, 2016

Paige's view- I opened my eyes in the morning at about 10:30am on Saturday. I slept over at Sophia's house last night. We got up and made our breakfast of beans, rice, and eggs in a tortilla. I started out that morning not as hungry but a little less energetic than usual. We watched a little TV and at about

12:00 my dad came to pick me up. I got home at 12:30. I took a shower at 1:30 and made my lunch of ugali patties and soy sauce at 2:30. It was good but it didn't fill me up. I didn't do much that day so at 8:00 I went down stairs, only to realize that I didn't have cabbage for our western Kenya cabbage and egg, so I ate my leftover ugali from lunch, and again, I went to bed hungry.

## Day 4: Sunday January 24, 2016

Sophia's view- Last night I had a sleepover with my friend and everyone went to a restaurant and I had to bring my diet food. While they were eating pizza I had to eat cabbage and eggs. I was so upset I couldn't eat with everyone else but I had to stay on the diet. This morning I woke up and my mom had made chocolate chip pancakes for my friend and I because she forgot that I couldn't eat it. I had my rice, beans and egg on my tortilla while they ate their food. Later was lunch and I had Ugali patties. Dinner was the same thing... It made me feel like I was going to throw up because it was undercooked and mealy.

## Day 5: Monday January 25, 2016

Paige's View- Monday's are tiring, but this morning I didn't just feel tired. I felt angry. I went to school angry and annoyed at anything anyone said. I ate my breakfast in anger and threw the rest away. I went to my classes and ended up at snack with nothing to eat. I was hungry for the rest of the day. Lunch was the same. Ugali. Later that day I had a basketball game. I started the game hungry, and ended it feeling like I was going to puke. I went home hungry. I made my ugali patties from scratch. I felt a lot better after I ate. I went to bed with a whole new perspective, which is that Sophia and I could have stopped any day this week, but in struggling countries, there no stopping. This is life.

*continued bottom of next page*



# Got Milk? Got rBGH?

By Fintan Trimble

Did you know cows can produce between ten and fifteen percent more milk if they are given a hormone called rBGH? (Sustainable). RBGH is an abbreviation for Recumbent Bovine Growth Hormone. This chemical hormone made by Monsanto is used by farmers to increase milk production. It's legal in many countries, but banned in New Zealand, The European Union, Japan, Canada and Australia (Farmed). Monsanto produces this hormone to sell to farmers so that they can make their cows produce more milk and make more money. This chemical hormone has been linked with colon and breast cancer in humans, and can cause udder infections and mastitis in cows (Ewall). Because of these negative side effects, rBGH should not be used on dairy cows.

There are many negative side effects for cows who receive rBGH. Cows injected with rBGH can develop many health issues such as mastitis, which is a painful infection of the udder. RBGH increases digestion problems and infections in the cows. The cows are more likely to get diarrhea, bloating, indigestion, and even enlarged hocks and painful lesions on their knees and hooves, rBGH can also cause birth defects in unborn calves. Another side-effect of rBGH is that it shortens a cow's

life span (Ewall). This product is not safe for cows but it can also affect humans as well.

RBGH is problematic for humans who drink milk from rBGH treated cows. People who drink rBGH milk can develop health problems, including colon and breast cancer (Ewall). This is a serious concern for consumers, so suppliers would rather not buy rBGH milk from producers. The Organic Consumers Association has encouraged millions of consumers to urge Monsanto to stop using rBGH (Organic). They persuaded many large food companies such as Starbucks, Kroger and Walmart to buy non-rBGH milk (Kirk).

In 2015, the Genetically Engineered Food Right-to-Know Act was proposed. This Act would require food companies to clearly label any foods that are genetically engineered, such as milk that contains rBGH. This legislation, to date, has not been passed (Center for Food Safety). However, Vermont recently passed a law requiring GMO labeling on foods. This will go into effect on July 1, 2016 (Shreeves). To be an informed consumer, a shopper should read the label on milk cartons to see if the milk contains rBGH.

RBGH affects a consumer's decision in buying milk. This is because it can cause



cancer in humans, and makes cows sick. Customers can buy non rBGH milk which would force farmers who are using rBGH to stop using the chemical so they can stay in business. The non-rBGH milk costs more, but it is safer for animals and humans.

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## Kenyan Hunger

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### Day 6: Tuesday January 26, 2016

Sophia's view- After the dinner I had last night I was expecting to be more full than the other days but I wasn't. In the morning I felt really sick and tired. I ate all my breakfast but I was still starving. My stomach hurts really bad. I forgot my mashed potatoes and I was really hungry. I brought a clementine and I split it with Paige because she forgot hers too. For lunch I had ugali patties again, and it was gross. For dinner I had Kenyan beef stew. I'm super excited that tomorrow is our last day of this diet.

### Day 7: Wednesday January 27, 2016

Paige's view- Today is our last day. I woke up the same way I have all this week: Hungry, tired, and weak. I got ready and made my breakfast, went to school, had a clementine for snack, ate my lunch, went to a basketball game, went home, ate dinner, and went to bed.

#### Conclusion:

We've made a huge realization through this experiment. We've learned that we can barely make it through a week on this diet, and some people in Kenya have to do this their whole life. Consumers in most of the United States do not realize how much they

have until someone takes it all away. Most people focus on the things they want, and not the things they need. I think we learned that you have to be grateful for what you have because you could lose it really quick. My experience during this experiment was really terrible. I think this was a great way to show us what we have and how great of a life we have.

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## Obesity and Diabetes

continued from page 4

management plan. Regular physical activity helps a person's body use insulin more efficiently as well (Type 2), and helps people lose weight and stay generally healthy. Another preventive action to reduce the risk of obesity is avoiding sugar-sweetened beverages. Sugar-sweetened beverages tend to be high in calories and offer little or no nutrition. They also cause blood sugar to rise quickly; therefore it is best to avoid these types of drinks (Type 2). Having well balanced meals is another important aspect of staying healthy. Every meal should have a mix of starches, fruits and vegetables, proteins, and fats. Fruits and vegetables are lower in carbohydrates than other foods and they contain fiber that helps keep blood sugar levels stable (Type 2). These are some relatively simple and easy ways to help prevent obesity. If we reduce the number of people that are obese, we can subsequently reduce the number of people with diabetes.

There are many people in the United States who have barely enough money to

spend on the necessities of life, inexpensive food they choose to buy is typically lacking in nutrients and can cause people to become overweight, obese, and eventually diabetic. Luckily there are some healthy and inexpensive foods that can keep the United States healthier.

There are numerous causes of obesity and diabetes in the United States, but a major one is malnutrition. Luckily, there are many ways of preventing obesity, such as exercise, avoiding added sugars, and eating well-balanced meals. Although the number of people with obesity and diabetes is on the rise in the U.S., as long as people gain information on how to eat healthy, everyone can make healthier eating choices and eventually reduce the number of malnourished, obese or diabetic people in the U.S.

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## Sugaring Elective

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taps are set up so that gravitational force brings the sap down the line and into a tank near the sugar house. This sap sits in the tank until there is enough to boil.

The elective happens every Tuesday and Thursday; the average amount of time spent on the sugaring elective (which does not include boiling time) is anywhere from 6-10 hours. The boiling time depends on how much sap is in the tank, but on average, boiling takes between 8-10 hours. The high school burns wood in their sugarhouse instead of oil to boil their sap down to syrup. Last year, the high school burned anywhere from 1-2 cords of wood. A cord of wood is a large amount of wood that has a volume of about 128 cubic feet.

Last spring, the high school made 28 gallons of syrup, which is approximately 1120 gallons of gathered sap. The high school cans the syrup and puts it into quart-sized jugs. They sell each quart of syrup for \$20 and all of the money goes back to the school for possible future electives.

There are many health benefits to consuming maple syrup. While some people think that maple syrup is unhealthy because it has a high sugar content (which is true) there are also many essential vitamins and minerals found in this sweet product. "In 1 cup of maple syrup, there is 22% of your Recommended Dietary Allowance (RDA) for calcium, 21% of your RDA for iron, 2% of your RDA for riboflavin, 531% of your RDA for man-

ganese, 19% of your RDA for potassium and many other essential nutrients" (Nutrition). So even though maple syrup has a high sugar content, it has a lot of health benefits and is very delicious.

Sugaring operations take a lot of time, effort and commitment in order for it to be effective. Through the sugaring elective at TSA, students learn about the hard work and time commitment it takes to make maple syrup while enjoying the outdoors.

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## Blake the Banana

*continued from page 10*

Finally I have become regular size banana and I am ready to be picked. Unfortunately, I have seen some bad things over the past few weeks. Kids as young as eight are working in the plantations and they are extremely tired (“Ecuador”). Even some adults are not treated well. They are pushed harder than any human should and do so much work that they are almost abused. My hand of bananas wants to help them and let them rest, but we cannot do anything.

Finally, the day I have been waiting for since I formed, the man is coming to pick us even though we are still green. They put padding in between the hands to protect us from bruising and to absorb any latex sap that could discolor the fruit during transportation. The man cuts us down and he puts my bunch onto another man’s padded shoulder (How). He then takes us to a cable system and attaches my bunch to it. Then man attaches himself to the front of the conveyor system and pulls us along through a spraying system to get rid of any dust. We then arrive in a cool storage. That was about as much fun

that I have ever had.

In cool storage which is about fifty-six to fifty-eight degrees fahrenheit a man measures us to make sure we are big enough. We go to a washing tank to be completely washed and to be cut into smaller hands and checked for cuts and bruises. Unfortunately, one of my good friend was separated from my hand. Anyway, we have gone through the cleaning process and now we are being boxed tightly. The workers are loading us on pallets and putting us in trucks. We go to the port and are loading onto a freighter ship. Six to twelve days later we arrive at a ripening facility in the Scotland where the heat is tempered with and we are made perfect to be delivered to a store (How).

When we get to the store we sit on a produce shelf and wait there for a day. Then my good friend and I get picked off the shelf. We are brought to the cash register and a Scottish man buys us for twenty nine cents each (Park Slope). There are a lot of people out there that don’t know where bananas come from. We ended our life strong and yummy. As

one of my good friends said, “how do you peel about this topic?” a quote from Neil the banana peel.

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## Factory Farms

*continued from page 9*

killed in the United States each year, this law only applies to about three percent of all farm animals (Cantrell).

The laws that make exemptions for farm abuse are not the only place where industrial agriculture has created laws in CAFOs’ favor. Over the past few years, the meat and meat industry has pushed legislatures to criminalize whistleblowing, the act of exposing information deemed unethical. The bills make it illegal to take undercover video or photos on farms or seek employment for the purpose of going undercover. These bills are designed to prevent the exposure of the troubling practices in CAFOs (Factory).

Luckily, we do not need the government to end factory farming, we can do it ourselves. CAFOs only exist because there is a market for their products. The farmers rely on

retailers to keep their businesses going, and retailers decide on what to sell depending on what the consumers buy. If we do not buy industrialized meat, the retailers will not sell it, and then there is no demand for the products. If there is no demand, than the farmers are forced to change the way they treat their animals to suit our preferences (Jeffes). By refusing to eat CAFO products, consumers send a strong message about how they want animals to be treated. Ultimately, eating less processed meats and more organic or grass fed meat from a local farmer will reduce the high demand for products from CAFOs. Consumers can free animals from the horrific conditions of agricultural farming, they just have to make choices that support small scale meat sources over industrial meat operations.

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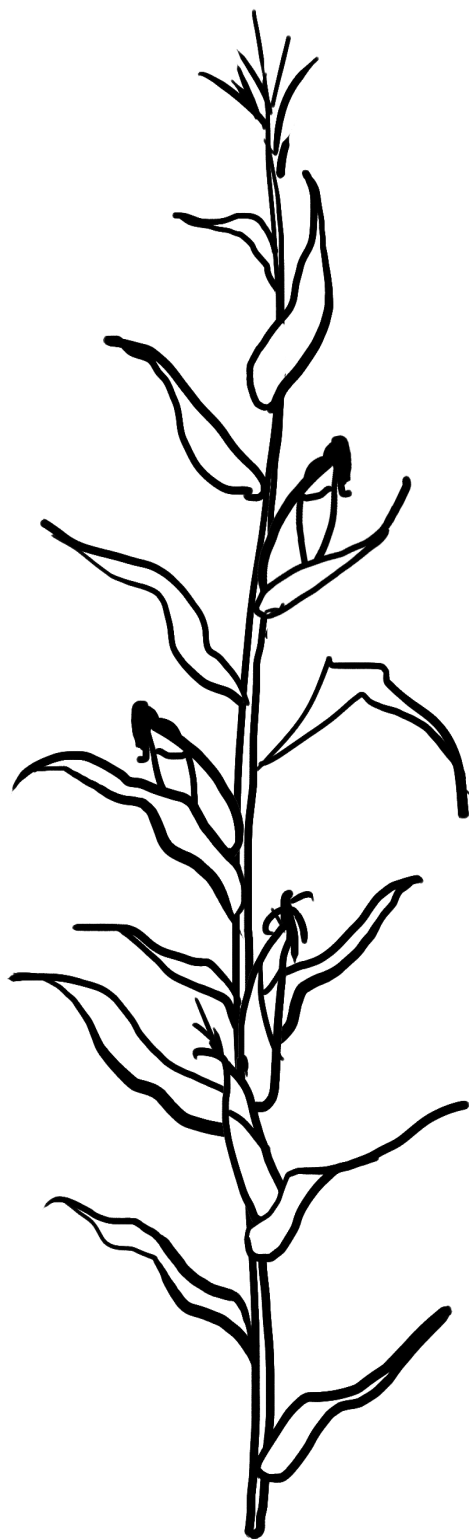
# The Amount of Corn in the United States is A-maize-ing

Trace and Jack Barnhart

In Ian Cheney and Curt Ellis' film, *King Corn*, there is a lot of corn; acres and acres of it. The premise of the film is about two friends who are hoping to move to Iowa, plant one acre of corn, and see what happens to that corn as it enters our nation's food supply. These two friends are intrigued by the prospect because they want to uncover the ways in which Americans consume corn every day. Americans are often unaware of how much corn they consume. In the end, the two friends are unable to accurately track their particular acre of corn because it gets lost in the mammoth quantities of corn our nation produces. They decided to find out where all corn goes, and extrapolate from that where various percentages of their acre might have gone.

*King Corn* makes one point very clear, that is that American food contains unprecedented amounts of corn. The reason there is a large quantity of corn in food products is partially because of the new subsidy program introduced by Earl Butz when he was head of the Department of Agriculture from 1971 to 1976. Earl Butz created a new subsidy program that made it so the bigger farms receive larger subsidies. In the old subsidy program, it was more profitable to be a smaller farm. Earl Butz said "What we need is plenty of food" (*King Corn*).

Ian Cheney and Curt Ellis discovered another bizarre use of corn in their journey to understand the corn industry. They found out how much corn is in animal feed, and why it is not healthy for the animals. Approximately four billion pounds of corn go into animal feed each year (Philpott). Corn gives animals acidosis. Acidosis will make animals produce more stomach acid and the acid will be more powerful. This will eat through the animal's stomach wall and kill them, unless the farmers give them antibiotics. When humans consume this beef the



antibiotics are passed on and cause antibiotic resistant bacteria in their bodies which can lead to deadly illnesses (*King Corn*).

3.75 million pounds of corn go towards making corn syrup each year (Philpott). A lot of the corn syrup goes into soda. High fructose corn syrup is made of fructose, whereas cane sugar is made of sucrose. The same quantity of high fructose corn syrup can make a person more obese than cane sugar. Sucrose is a more complex carbohydrate, it takes more energy to digest than high fructose corn syrup does. The sales of high fructose corn syrup have gone up because the quantities of corn we grow in America have increased over the years (*King Corn*).

In *King Corn* the filmmakers discuss many issues about how much corn we are producing in the United States. While this is an informative film, it could have gone deeper into how to stop the overproduction of corn and what laws and lobbies prevent these changes from occurring. Corn is used in so many more foods than consumers are aware of. For example, almost all tomato sauce has corn syrup in it to lower the acidity. Most corn does not go directly to feeding humans, more than half of the corn produced in the United States goes into animal feed (*King Corn*). This movie deserves four out of five stars for its detailed analysis of the issues around corn production, and raising awareness about this vexing issue in American agriculture.

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## Grass-Fed Beef

*continued from page 1*

to the feedlot to be “finished”. This is when they are sent off for slaughtering (Finishing). Cows gain the most weight (for optimal slaughter conditions) when they are confined to the feedlot eating corn. When the cows are taken into the slaughterhouse, their necks are broken and their meat is harvested without much attention to the comfort of the animal (Mr. Lane).

Every aspect of conventional beef farming is designed for efficiently raising cheap beef. While the goal of grassfed beef is also to raise meat for sale, a greater emphasis is placed on human and animal health and ethics than profit. Despite their differences, both grass-fed and conventional beef create some negative environmental repercussions. When cows fart, gas called methane is released into the air. However, grass-fed cows produce less methane gas because they do not eat the grains which cause indigestion. Clearly, grass fed cows are slightly better for the environment and their meat is healthier to eat.

Grass-fed beef is less popular in stores because of the added expense, even though it is more nutritious. People buy grass-fed meat because it is lower in fat and calories. For example, a six ounce steak from a grass-fed cow can have 100 fewer calories than a comparable steak from a grain-fed cow (Eat Wild). Grass-fed meat is better because it is leaner. This is because grass-fed cows get more exercise from foraging in large open fields, while cows raised in feedlots are more restricted.

Grass-fed beef has more vitamins and nutrients than conventional beef. Although

both types of meat have the same amount of protein, grass-fed beef does have more omega 3 fats. Omega 3 fatty acids are considered essential for the human body. Omega 3 is important for human health, but the body can not make it on its own. These fatty acids play a crucial role in our brain function, and in growth and development. “Research has shown, omega-3 fatty acids reduce inflammation and may help lower risk of chronic diseases such as heart disease, cancer, and arthritis” (University). Additionally, grass-fed beef has a lower risk of having the E. coli virus than conventional beef (Health Benefits). The graph show the comparison of grass fed versus grain fed beef for instances of E. coli infection. There are many reasons why grass-fed beef is healthier than conventional beef.

Conventionally fed beef is more popular in stores because of it’s low prices, even though it has less nutrition and is not as healthy as grass-fed beef. Conventionally fed beef is more common, but as consumers learn more about grass-fed beef, conventional beef is losing popularity. One reason for its reduced popularity is because consumers are learning that cows that are conventionally raised are being fed antibiotics and hormones to make them grow faster and bigger. This is problematic because it can lead to antibiotic resistant bacteria and excess hormone levels in the beef. Consumers are also concerned about the treatment of animals in conventional facilities which is typically worse than smaller grass-fed operations.

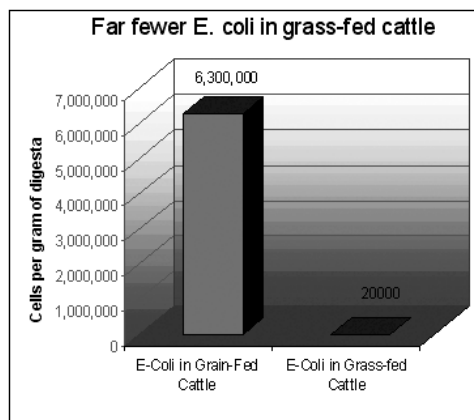
Often, consumers who choose to purchase grass fed beef can face some initial struggles while cooking this slightly different meat.

The main tip for cooking grass-fed beef is to cook it on low heat. This helps to break down collagen which is the main structural protein found in animal connective tissue. Breaking down collagen is important because it makes the meat more tender and easier to eat. Most people do not know how to cook grass-fed beef correctly so they go back to buying conventional beef which they know how to cook.

Despite the price difference between grass-fed and conventional beef, there are many reasons why people should buy grass-fed beef. Grass-fed beef is healthier and it provides more important vitamins and nutrients. A grass diet is also more natural for cows and better for the environment by cutting down on the methane produced by grain-fed meat cattle. It may be more expensive to buy grass-fed beef but it is better for the consumer, the cows, and the environment as a whole.

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Comparison of Grass-fed Versus Grain-fed Beef

	Grass-fed Beef	Grain-fed Beef
Price Range	\$5.00-\$8.00 (Saelinger)	\$4.99-\$6.99 (Saelinger)
Feed type	Grass	Grain
Living Conditions	Farms	Feedlots
Use of antibiotics and growth hormones	No use of antibiotics or growth hormones unless the animal is sick.	Antibiotics and growth hormones are used to make animals grow faster and bigger.

## Food Stamp Experience

*continued from page 3*

name, Price Chopper has very cheap foods and good deals. We focused on a mostly carb-filled diet, because though it may not be the best in vitamins and minerals, it certainly kept us going over the course of the week. We would have loved to buy local, but unfortunately, it was just too expensive. We could absolutely taste the difference in the cheaper eggs we purchased compared to the eggs from our normal local source. We are accustomed to extra large, local, organic eggs. We only had the money to buy medium sized, corporate eggs. They tasted terrible, and had absolutely no flavor. This was an example of how we had to pick quantity over quality for the week. Both of us agreed that if we had gone to a place that sells mostly local, organic food, like a Co-Op, we would have been much hungrier and would not have been able to play well in our sports.

### The Effects

#### Olly's Experience:

This diet was not as bad as I thought it would be. I usually eat a lot of food, and I definitely had enough food to keep me going, even if I was a little hungry. The part that I struggled most with was having to eat the same thing over and over again. It got boring and bland very quickly. I also immensely regret not buying any meat or cheese, because that can easily spice up any meal, and adds good nutrition in the form of protein. I really appreciate this experience for allowing me to fully empathize with people who are food insecure. It is one thing to think about how terrible someone's situation might be, but

actually putting yourself in that situation is completely taking it to another level of empathy. As a result of this experience I can genuinely relate to someone on SNAP. I am lucky to be able to go off the diet at any time. Someone on food stamps has to continually live on a meager amount of money for food, that can't balance out healthy eating with the amount food necessary to fully function. This has shown me that just because you are being supported by food stamps, doesn't mean that everything comes easily.

#### Tom's Experience:

Coming into the week I expected to be hungry non-stop and never be able to be comfortable. I really didn't give us enough credit for our food choices. We figured out through trial and error just the right way to execute the meals and how to ration the food over the week. This system was very effective especially because we worked together to split food. As the week went on, I began to lose ability to think and my comprehension speed went down a ton. Overall, work became very difficult and I wasn't able to stay on topic very well. This really showed us how difficult it is for children in households relying on food stamps. The longer this went on, the easier it was for me to plan and stick to the diet. In general, this was a very educational and eye-opening experience.

### Conclusion

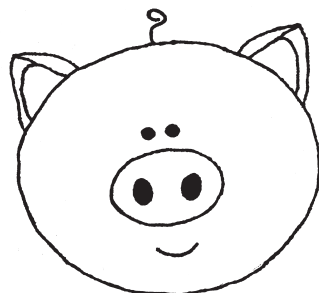
Partaking in this diet has been a very enriching experience for both of us. Since we

both lead very active lifestyles we decided to purchase high carb products. This choice really helped us over the week because it filled us up and left us ready to go. Healthier food was an option and was definitely within our budget but did not make sense based on our lifestyles. As teenage boys we are used to eating large amounts of calories and so this diet really tested our ability to ration and think for the future. This experiment has really shown us how consuming less nutrients and less food in general can really affect your energy levels. Overall this experience has showed us that millions of people in the U.S. must face this cold cruel reality of food insecurity

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# Pink Slime In Beef: Good or Bad?

Mason Kinney

Pink Slime is an ingredient that is used by the beef and chicken industries. The formal name used by the beef manufacturers for slime is Lean Finely Textured Beef (LFTB) (Abraham). Opponents to the production of LFTB call it “Pink Slime” to highlight its slimy texture. Pink slime is made from ammonium gas, outer cow carcasses, bone shavings, and other cow tissue (Abraham). It is used as a filler for beef products; for example, seventy percent of ground beef sold in some grocery stores and fast food hamburgers are pink slime or contain some pink slime (Fantozzi). (See photo below.) (Photo credit Bunge)

Many fast food restaurants used LFTB in their beef products until 2012, when Jamie Oliver, a British celebrity chef, informed society that places like McDonald’s, Burger King, Jack in the Box, Chick-fil-A, and Wendy’s were using pink slime in their ground beef. After this exposure, many fast food restaurants began to use traditional ground beef instead (FOX). The U.S. is the main consumer of LFTB, in fact, the UK and Canada don’t allow it in fast food restaurants at all. Health Canada has not approved pink slime as a safe food additive (Stoymenoff).

The company that produces LFTB is Beef Products Inc (BPI) (Fantozzi). BPI was found using pink slime in 2012 and closed two to three of its four factories. LFTB is problematic for consumers because most people don’t know what they’re eating. Seventy percent of all beef sold at the grocery store contains pink slime (Fantozzi). Customers at grocery stores often believe they are purchasing pure beef,

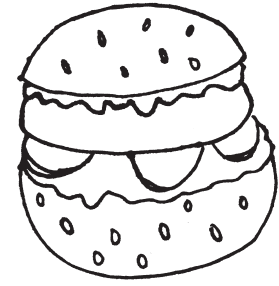
but chances are it contains some amount of pink slime. Also, the ammonium gas that is injected into the pink slime can be harmful. Ammonium gas is a household cleaner and is not meant to be consumed by humans. It causes corrosive damage to the throat, mouth, and stomach when ingested in large quantities (Department of Health). This chemical is used to kill any bacteria in the meat to prevent sickness (Yoquinto). This is why

**“While beef is \$4.00 per pound, pink slime is significantly cheaper. Therefore, fast food places can sell a hamburger for a dollar and still make money.”**

McDonald’s has such a low rate of food-borne illnesses in their restaurants, whereas Chipotle has had quite a few outbreaks in the last year (Zarrolli). Chipotle uses locally sourced, chemical and hormone free meats (Chipotle).

Even though it sounds disgusting, there are many benefits of using pink slime for consumers and restaurants. LFTB is more affordable than pure ground beef. While beef is \$4.00 per pound (Russell), pink slime is significantly cheaper. Therefore, fast food places can sell a hamburger for a dollar and still make money; it is safe to say that the origin of the dollar menu is connected to the invention and use of pink slime. LFTB is also

nutritious because it still contains a small amount of beef. In moderate amounts LFTB is not harmful to consume; it contain some good nutrients, even if it does not sound appetizing.



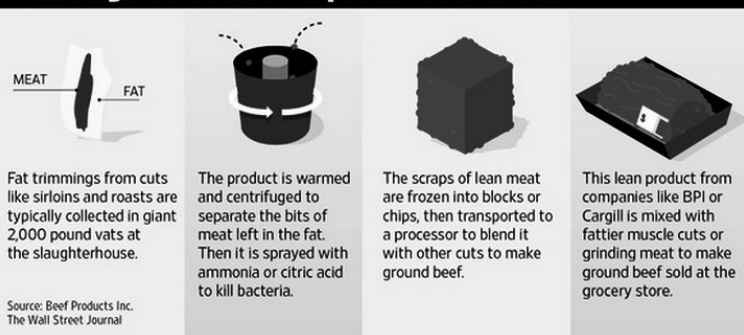
LFTB uses all the parts of the cow instead of just the choice cuts for steak, which helps the environment because the meat is not just fed to other animals (Humbucker). It saves 1.5 billion cows from slaughter every year and is healthy and cheaper than regular beef (Russell).

Although pink slime seems disturbing, it’s not necessarily harmful to consume. Even though many fast food restaurants like McDonald’s and Burger King don’t use LFTB anymore, many restaurants and grocery stores still use it. Pure beef would probably be a better choice healthwise as it has better taste and general appeal. When shopping for beef for in the grocery store, be sure to read the label and choose wisely.

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## Trimming the Fat | How finely textured beef is made



# The Sharon Academy Middle School

**Known. Valued. Challenged.**

The Sharon Academy Middle School's character is defined by three fundamental attributes: a safe and supportive learning environment, rigorous academics achieved through our integrated curriculum and high expectations for all students; and a dedicated faculty that makes it all possible.

Through a variety of offerings and opportunities, TSA students graduate from our middle school confident of their own abilities, articulate in the communication of their knowledge and their needs, and effective as team members who are empowered to take responsibility and leadership within their communities.

**Safe** TSA strives to be a physically, socially, and emotionally safe environment for all students. Developing respect, compassion, and cooperation is an important focus of every school day.

**Integrated Curriculum** A central philosophical underpinning of the middle school curriculum is that information is best learned when it is connected and reinforced through relevant holistic themes. During the middle school's two-year curriculum cycle, students participate in an in-depth exploration of six units. Each unit is examined through the lenses of science, language arts and social studies. Students are encouraged to find and explore connections between the disciplines in each topic. This newsletter is the result of the Food and Hunger unit.

**Rigorous Academics** Our curriculum offers students many opportunities to learn how to work in teams, practice presentation and communication skills, and complete independent research. These skills form a strong foundation for future success - academic, social, and professional.

Individualized and/or leveled assignments are an example of one way we assist students to work to their potential. Most school assignments are available to all students at three different levels, each representing a different level of subject mastery. Students choose the assignment level that best challenges them - and are often encouraged by the teacher to reach to the next level.

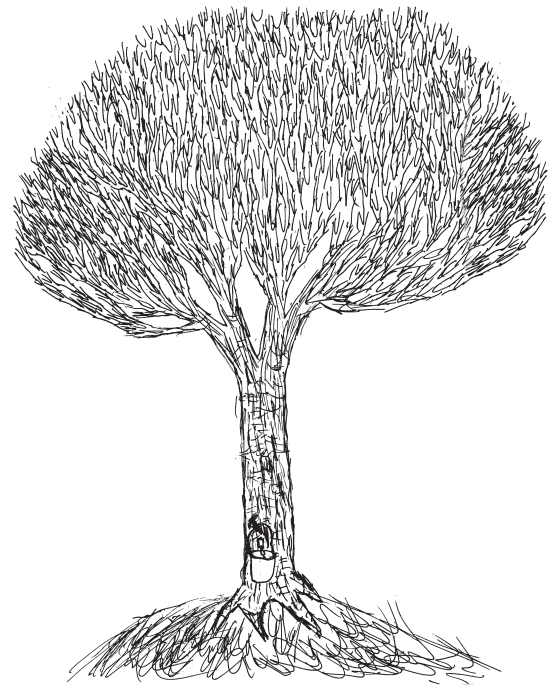
## Community

**Classes** Our classes are small: 9-15 students in each class.

**Strong Relationships** Supported by small class sizes, teachers are able to know each student as a whole person. Additionally, each student is assigned an advisor who is their advocate for academic, social, and emotional growth

**Mixed Groupings** Our program is structured so that the students interact as a whole community. Class groupings are reshuffled every six weeks and whole school projects are common.

**Community Service** To foster the value of hard work and service, all students are required to complete 20 hours of community service every year as a graduation requirement.



*Art by Barnhart*

*After you are done reading this newsletter, please consider passing it along to something else who might enjoy it.*

## OUR TIMES

Food and Hunger in Our World  
Sixth Edition

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Special thanks to faculty members Pam Ward, Andrew Lane, Marcy Innes, Christian Durgin, Tom Diamond and Hannah Levinger for their support in helping students to hone their articles to the final stages.

Thanks to TSA parent Sue Schlabach for doing the layout design.