

## Our Impact

One of the most divisive subjects in both the scientific and political communities of today is the dilemma of global warming. While much research has been done over whether or not it's really happening, some focus should be shifted to whether or not it's an immediate danger for us, and if it is, how so, and what should be done to stop it.

Since the Industrial Revolution, we've been in increasingly hot water (both literally and figuratively) with no chance of slowing down anytime soon. The CO2 emissions fueled by industrial technology have been unnaturally heating our planet, and as tech gets more and more advanced, we can only expect the temperature to rise.

Even though the Earth goes through natural heating and cooling cycles that aren't necessarily caused by humans, there's some alarming statistics regarding our CO2 emission. Since the Industrial Revolution, our carbon dioxide use has spiked drastically (almost doubling, according to NASA), reaching highs that have never been seen before in human history.

When looking at the issue on a more recent scale, there's a lot of things that come into play. Forest fires, droughts and hurricanes are all things that become increasingly common as the earth gets hotter and hotter. We've seen the devastation that's been ongoing from this year's onslaught of tropical hurricanes (as well as the forest fires and water shortages in California); and if climate change keeps up, it's only projected to get worse. This may not be a danger to our lives in the Midwest, but it's bad news for our country as a whole, as well as the entire world.

Speaking of the entire world: as the ice caps melt and the oceans continue to rise, there's some awful complications for islands lying close to sea level. Five islands in the Pacific were "lost to the ocean" last year.

And the same thing is happening back at home. Water-bordering towns in states from Alaska all the way down to Louisiana have been forced to relocate because of the rising water. In 2016, there were eight US floods that were, since then, only projected to happen once every 500 years.

Even though the complications of climate change might not be an immediate danger to us here in Pella, it's dangerous for the globe as a whole, and so as time runs out, we should keep our eyes on the clock.

• Gavin Klein (gavin.klein@student.pella.k12.ia.us)

## Where's The Beef?

The average American consumes roughly 164 pounds of beef annually. It takes 34,636 gallons of water to grow those 164 pounds of beef for consumption. Your 164 pounds of beef require 679,616 BTU's of energy, or enough to power a single lightbulb for around 380 years. Maybe the sustainability crisis lies in the burger sitting on your plate, not in the oil in Saudi Arabia.

Unfortunately, this problem is rarely recognized as an integral part of the sustainability crisis. Agriculture, while essential to our daily lives in the US, is one of the largest issues when it comes to changing the earth. Everyone knows our pickup trucks and SUVs

are killing the polar bears, but what we do not hear is that livestock is doing as much damage to our earth's climate. According to a 2006 UN report, livestock "generates more greenhouse gas emissions than transport." And that study was about greenhouse gases alone, not to mention that ranching is one of the leading causes of deforestation globally, with your 164 pounds of beef requiring 49,000 square feet of land for grazing and growing feed.

While everyone can all enjoy a juicy steak or grilled hamburger, there are many alternatives to livestock for our food supply. Roughly 2 billion people around the world can be found enjoying insects for

a meal. A cricket contains half as many calories as ground beef, only 17% of the amount of fat, and just as much protein. On top of that, 164 pounds of insect only requires around 150 gallons of water, 0.4% of the water requirements of the equivalent amount of beef. Now I'm not saying to go grab that ladybug sitting on the window and plop her in your mouth, but insects can be put into bread, meatballs, and all sorts of delicacies, eliminating thoughts of creepy crawlers roaming around the furnace room of your basement.

At the end of the day, most of us probably aren't going to order tortillas made from cricket powder on Amazon, but we need to at least

acknowledge that the amount of beef that we are consuming is a problem. Maybe that means trading your Big Mac for McNuggets, or swapping your ribeye for a salad. These steps may seem inconsequential, but the biggest problems can only begin to be solved by everyday actions taken by common people in common places like Pella.

• Grayson Parisee (grayson.parisee@student.pella.k12.ia.us)

**Canada:** "The average Canadian recycled 112 kg of material in 2004 compared to 71 kg in 2000. The residential recycling rate—the amount diverted as a proportion of waste generated—also increased between 2000 and 2004, with 27% of residential waste going for recycling in 2004 compared to 19% in 2000."

-www.statcan.gc.ca

**United States:** "In 2013, Americans generated about 254 million tons of trash and recycled and composted about 87 million tons of this material, equivalent to a 34.3 percent recycling rate. On average, we recycled and composted 1.51 pounds of our individual waste generation of 4.40 pounds per person per day."

-www.archive.epa.gov

**Mexico:** "According to a study conducted by the institute in 2015, of the 31.9 million households in Mexico 79% deliver their trash directly to the garbage truck, 11.9% burn it to avoid odors and prevent it from attracting pests and only 6.5% dispose of it in specifically marked containers."

-www.mexiconewsdaily.com

## Climate Change: It's Real

The Earth is under attack by extreme heat waves. The frozen water on the planet has melted and the weather is becoming extremely unpredictable. Hurricanes, droughts, wildfires, and other natural disasters are occurring at rapid rates. This is what National Geographic believes will happen if no action is put in place to prevent any more damage caused by climate change.

NASA has concluded that climate change is happening right now. Recordings of annual carbon dioxide levels have led to the acknowledgment that a change in the ways that humans live is necessary. Scientists have observed that the

current level of carbon dioxide is the highest it has ever been.

There are still doubters in the world, one being the President of the United States. Donald Trump has tweeted on multiple occasions that the issue is a "hoax" and has tweeted that climate change "was created by and for the Chinese in order to make U.S. manufacturing non-competitive." Trump's administration also withdrew the United States from the Paris Climate Agreement. The agreement was put in place to have countries of the world limit their industrial uses of greenhouse gases. Though President Trump is skeptical about climate

change, a federal government study was released that found "no convincing alternative explanation" for the cause of climate change other than "human activities." NRDC, the National Resources Defense Council, has come up with multiple ways for people to contribute to limiting climate change. One way is weatherizing, which is the process of using the natural weather for heating and cooling instead of running a heater or air-conditioner. Even as a student, an impact can be made.

• Zoe Card (zoe.card@student.pella.k12.ia.us)



**Europe:** "In 16 of the 31 countries (Member States and EFTA), the amount of municipal waste generated per capita increased between 1995 and 2015. Based on 1995 and 2015 figures, the highest average annual growth rates were recorded for Malta, Greece (both 2.4 %), Latvia and Denmark (both 2.1 %)."  
-www.ec.europa.eu

**Asia:** "In South Korea it is mandatory for food waste to be separated by households so it can be recycled into animal feed or compost. There are also high-tech food waste disposal systems that weigh the food waste and charges residents based on the weight of disposed food waste. The country managed to cut its food waste from 5.1 million tons in 2008 to 4.8 million tons in 2014, official statistics show."  
-www.cnn.com

**Africa:** "During 2014, 1,084,400 tons of plastic waste was sent to South African landfills. The 2014 results show that the amount of plastics converted from local production and imported materials in South Africa remains the same from the previous year at 1,400,000 tons. There has been a slight increase in 2014; 22.5% of plastic waste produced was recovered and recycled compared to the 20% of the previous year."  
-www.urbanearth.co.za

## Not Just a Fad Diet

If you think of a basic home cooked meal, what do you think of? Does your mind go straight to an all veggie course or do you imagine pork chops, corn, applesauce and mashed potatoes? When the typical Iowan thinks of food, they don't immediately imagine a vegetarian meal.

The facts about people who eat meat are pretty straightforward and may be surprising to some people. According to npr.org, the average American eats 270.7 pounds of meat a year, and we are the leading country in meat consumption. If you think about that, it would be like eating about 1,083 quarter pound hamburgers every year. For some people, like junior Elsa Scheepers, this is why they chose to follow the vegetarian diet.

"The animal cruelty in the livestock industry made me want to stop eating meat," said Scheepers. "The only difficulty I had with switching my diet was making sure I was getting enough protein."

Vegetarianism can be broken down into different branches: vegan, lacto vegetarian, ovo vegetarian, lacto-ovo

vegetarian, pollotarian, and pescatarian. All of these categories are pretty similar to each other, but slight variations in food choices are what set them apart. Vegans don't eat anything that comes from an animal (meat, eggs, milk, etc.). Lacto vegetarians don't eat meat or consume eggs, but they consume dairy products. Ovo vegetarians don't eat meat or consume dairy products, but they eat eggs. Lacto-ovo vegetarians don't eat meat, but they do consume eggs and dairy products, and they are the most common type of vegetarian. Pollotarians cut out red meat and fish but consume white meat. Pescatarians only consume fish as their meat.

"The biggest difficulty with my diet is finding things to eat," said sophomore Lily Pumphrey, who is a vegetarian. "My mom is vegetarian and cooks vegetarian food, so it isn't hard at home, but sometimes when I get school lunch or eat out, I have a hard time finding stuff. Another thing that I find difficult is when I go over to people's houses and their parents have cooked non-vegetarian food. This sucks because they feel bad for not knowing, and I feel bad for not telling them. I don't

expect anyone to accommodate for me."

Is a vegetarian diet a fad diet? The answer is no. Vegetarians can benefit from many health boosting things from this diet. According to pcrn.org, a physician committee, "Studies in England and Germany have shown that vegetarians are 40 percent less likely to develop cancer compared to meat-eaters." Junior Claire Corbin, who is a vegan, has noticed the benefits of transferring to a plant-based diet and is having fun exploring her new diet.

"Becoming vegan has been one of the best decisions of my life! I feel so good and much better than before," said Corbin. "This process of switching to a whole foods plant based diet has taught me to appreciate food more. When you take out all of the processed junk that our society is so used to eating, you taste the real and good stuff, the food we were meant to eat. It's amazing!"

•Tiffany Van Gilst (tiffany.vangilst@student.pella.k12.ia.us)

## Voice

What are your thoughts on global warming?



"People talk about it, but people don't really do anything about it."  
-Freshman Madison Naig



"Global warming is a real issue, even though people don't think it is."  
-Sophomore Jordan Roozeboom



"Global warming is not good because sea levels rise, and animals who live in the Arctic can't live in the warmer weather." - Junior Maddy Rempe



"I heard that it was made up by the Chinese to help their economy. Everything is made in China."  
-Senior Reece Schnell