

Does Our Love of Meat Impact the Climate?



Midland FFA Chapter
106 W. Webster Street
Wyoming, Iowa, 52362
563-488-2292
April 19, 2021

ISSUE SUMMARY

List of course(s) in which instruction occurred.

Agriculture, Food and Natural Resources (32) - Through improved agricultural practices, society has been able to industrialize. Water cycle and movement of water through various states of matter and locations in the environment. The production of animals for food, fiber, and fuel create ethical dilemmas for producers and consumers.

Zoological Science (23) - Understand the resources necessary to produce production animals. Comparison of various diets including both plant and animal based occurred as well as nutrition value of animal products and the digestive process of various livestock species based on anatomy and physiology.

Chapter Leadership and Development (11) - Researching different agricultural commodities and developing infographics to educate school and community. Understanding both sides of an issue and being solution focused.

Agriculture Leadership (7) - Discuss the importance of understanding varying viewpoints through the discussion of myths in agriculture and importance of complete unbiased research.

Food Science and Safety (15) - Evaluating the nutrients found in food and impact of protein on consumer acceptance and preference. Regulation of food products occurs through a variety of government organizations.

In the Kitchen (31) - Discuss nutrients found in food products and the importance in the human body.

What is the nature of this issue and why is it important now?

As agriculture and industry continue to drive society, consumers and producers alike struggle to decipher the degree of impact that meat production has on the environment. While the animal agriculture industry is important, as it provides a high-quality protein source and numerous by-products used in our daily lives, one must not discount the methane produced and resources used through the production of ruminant animals (Fauna Facts, 2021). With a better understanding of the role of methane as a greenhouse gas and its ultimate degradation of our atmosphere, it is not difficult to place the blame on animal agriculture. Compounding the issue is the low percentage of the population directly involved in production agriculture compared to industry, which leads to misunderstanding and misinformation (OurWorldInData, 2021). The growing impact social media has on informing the public makes this issue more prevalent now than ever before.

Who is involved in this issue?

Producers are actively involved in the raising, daily care, and overall management of the livestock who are blamed for contributing to environmental damage. **Industry** manufactures the products that consumers use in their everyday lives, but also produces a large quantity of greenhouse gases that harm the planet. **Consumers** are tasked with maintaining a nutritional diet while also being conscious of the environmental impact of their food choices. The **National Cattlemen Beef Association** advocates for the cattle industry through conference events, advertisement, lobbying (NCBA, 2021). **Media** outlets--whether social, news, or other forms--are in charge of informing the public regarding the world's issues, and therefore regarding the declining health of our planet. Their job is to report truthful, unbiased information, but that is not always the case. **The Environmental Protection Agency (EPA)** and the **United States Department of Agriculture (USDA)** are government organizations responsible for protecting, maintaining, and overseeing guidelines pertaining not only to food production and safety, but also protecting the resources necessary for production (EPA, 2021), (USDA, 2021). While **agriculture sales and services** are not as directly connected to the agriculture lifestyle as the farmer, they still have an incredibly important role to play from getting ag commodities to consumers. **Grocers** and **restaurants** are the midpoint between the food production industry and the consumer, therefore they allow customers to choose how they feed themselves and their families based on their views of how what they eat impacts the climate. **State, Federal, and International Governments** make decisions on behalf of their citizens, as well as the land they govern. These decisions include those that are put in place to combat climate change, prevent further harm to the environment, and reverse the damage already done. **Researchers** and **scientists** are responsible for conducting studies on a plethora of topics, including those involving environmental issues.

How can this issue be defined?

This issue can be defined as a controversy over the impact animal agriculture, specifically cattle production, has on the environment in terms of greenhouse gas emissions and resource use. The pro side of this issue argues the fact that the production of animals for consumption is a direct cause of environmental damage due to the release of methane through the digestive process (National Geographic, 2019). Furthermore, the pro side highlights how land and water consumption compare between meat and plant based diets (Ensia, 2016). On the other hand, the con side addresses industry's impact on the environment through production of greenhouse gases. The con side also introduces innovations in agriculture that are decreasing and eliminating the impact caused by not only animal production, but that of industry as well.

ISSUE SUMMARY

Why is this issue important to Iowa?

Seeing as the state is second in the nation for agricultural production (Beef2Live, 2021), this issue is vital to Iowa. Looking specifically at the cattle industry, Iowa is also ranked second nationally for the production of red meat (America's Heartland, 2021). Not to mention, over two thirds of its counties' economies depend entirely on agriculture (The Gazette, 2019); the state boasts over 86,000 farms (Iowa State University, 2019). Lately, Iowa has become a leader in solving the problems created by agriculture and other industries that lead to climate change by utilizing carbon sequestration and methane digesters. (University of Nebraska, 2021) These facts just go to show how important the agriculture industry is to Iowa. However, as social media is beginning to spread more and more misinformation regarding animal agriculture's impact on climate change, the ag industry is taking a hit. This means the livelihoods of Iowa's farmers and ag industry workers are in danger, as well as Iowans who rely on the food provided by animal agriculture to support their diets. If more and more individuals turn from consuming commodities from animal agriculture, the well-being and overall success of the entire state of Iowa will be jeopardized, considering the state's economy heavily relies on agriculture.

What is the historical background of the issue?

While humans' impact on the environment started day one, we now realize something has to be done to slow, stop, and ultimately reverse the impacts made through poor decisions and improper resource use. One of the highly controversial methods of improving the situation is to stop the production of animals for consumption due to the methane produced through their digestive process. While there have been many innovations to offset or decrease the impact methane and carbon have had on the environment, they haven't been utilized to the potential that they could be to offset the impact humans have had. Recently, our environmental health has become a priority for both our government and citizens, thus the recent focus and steps being taken.

- **1859** – First recorded methane digestion plant worldwide is built in a leper colony in Bombay, India.
- **1896** – Swedish scientist Svante Arrhenius predicts that changes in atmospheric carbon dioxide levels could substantially alter the surface temperature through the greenhouse effect.
- **1938** – Guy Callendar connected carbon dioxide increases in the Earth's atmosphere to global warming.
- **1951-1953** – First recorded methane digester in the U.S. is used in Pleasantville, Iowa.
- **1976** – Amount of beef consumed in the U.S. reaches an all-time high of 94.1 pounds per capita.
- **1977** – The basic idea of Carbon Capture and Storage (CCS)—capturing CO₂ and preventing it from being released into the atmosphere—was first suggested.
- **1980s** – Carbon offsetting arises as policymakers first grapple with how to mitigate climate change.
- **2005** – Greenhouse gas emissions in the U.S. reach an all-time high.
- **March 18th, 2020** – Start of Iowa COVID-19 quarantine.
- **January 20th, 2021** – President Joe Biden signed the instrument to rejoin the Paris Agreement.
- **February 19th, 2021** – The U.S. becomes an official Party in the United Nations, and therefore are in a position to exercise global leadership in advancing the objectives of the Paris Agreement.
- **April 22nd, 2021** – President Joe Biden sets 2030 Greenhouse Gas Pollution Reduction Target at Leaders Summit on Climate.
- **June 22nd, 2021** – Iowa Governor Kim Reynolds signs Executive Order Number Nine to establish a carbon sequestration task force to study carbon sequestration further, including its economic value and agronomic impact on row crop production in the state.

What are the risks?

- Neglecting to consider other impacts to climate destruction.
- Increasing the urban and rural divide.
- Diminishing the impact that meat production has on supporting jobs in ag sales and service and the agriculture economy of many states in the United States.
- Discounting the nutritional benefits of meat and animal products as part of a balanced diet.

What are the benefits?

- Identifying solutions to decreasing and reversing damage to our climate.
- Allowing consumers to use their purchasing power to voice their position.
- Looking at how to make changes now instead of waiting for further damage.
- Agriculture is developing innovations such as methane digesters and carbon sequestration techniques to decrease not only agriculture's impact, but other sources as well.

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LOCAL FORUM PRESENTATIONS

<i>When</i>	<i>Where</i>	<i>Audience</i>	<i>Number Present</i>
March 20 -31, 2021	Wyoming TV Channel	Wyoming Cable Subscribers	200 Households
March 24, 2021	YouTube	Followers and viewers	241 Views on March 24, 2021
April 5, 2021	Iowa Capitol Des Moines, IA	Department of Agriculture and Iowa Representatives	12
April 6, 2021	Farm Bureau Anamosa, IA	Jones County Farm Bureau Board	10
April 12, 2021	Wyoming High School Platform – Webex	Iowa State University Sigma Alpha	14
April 14, 2021	Wyoming High School Platform – Zoom	Jackson County Economic Alliance	2
Recorded: April 16, 2021 Broadcasted: April 19 -20, 2021	Wyoming High School Platform – Radio	WMT – Big Show	Unknown Broadcast area covers portions of 44 states

Wyoming Television Channel



Wyoming Cable Subscribers
March 20-31st, 2021
200 Households

Stephanie A. Kaftan
202 East Webster Street PO Box 222
Wyoming, Iowa 52362
563-488-2582
sekaftan71@gmail.com

Friday, April 16, 2021

To Whom It May Concern,

It was my pleasure to watch a recent FFA presentation title, "Does Our Love of Meat Impact the Climate?" I was able to watch 7 Midland students/FFA members participate in a well-planned and executed public forum.

Due to COVID19, their Ag Issues presentation was available from March 20 through March 31, 2021. It aired at 7pm on our local public access channel. It could also be viewed on [YouTube](https://youtu.be/Dr_hNjsgqDU), at https://youtu.be/Dr_hNjsgqDU. The YouTube video has been watched almost 250 times. Midland community members could also listen to the presentation on our local radio station, KMAQ, out of Maquoketa, Iowa.

All team members were knowledgeable and engaged. As a Midland School District property tax payer and financial supporter of the Midland FFA, I was extremely proud to see the accomplishment(s) of these FFA members. The students offered many different viewpoints, in a constructive and educational manner. It was interesting to learn about how my backyard summer BBQ might be impacting climate change. I left with a wealth of new information, including questioning my own eating and purchasing habits.

I believe this issue has no easy solution, but, hopefully, with continued discussion the global community will make advancements in protecting the environment and all stakeholders.

This was an enjoyable viewing experience. I commend these particular Midland FFA members for their dedication to this intra-curricular activity.

Respectfully Submitted,
Stephanie Kaftan



YouTube



Followers and Viewers
March 24, 2021
241 Views on March 24, 2021

Midland FFA Ag. Issues Team Review

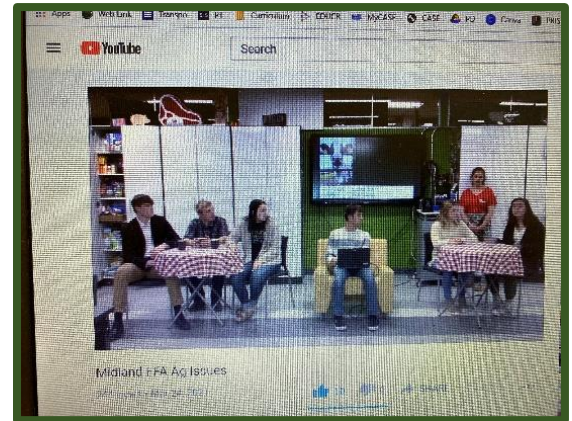
I recently had the opportunity to view the video presentation by the Midland FFA Ag. Issues Team. I must admit that the topic of "Animal's impact on the Climate" caught my attention. This is a topic that no matter your age, occupation or political views has an impact on all members of our society. The initial reaction by agriculturalists could be viewed as a very controversial topic.

The 7 team members each represented different sectors of the issue. Their presentation was informative and thought provoking. Each team member shared the research that supported their position. It was interesting how each team member clearly stated their position which led to the next team members views. Each of the 7 team members came off naturally as they truly believed in their position.

I found the TV in the background of the set as an interesting presentation tool as it scrolled information reinforcing the discussion. The team members were very well rehearsed. Finally, the team members presented their positions in a challenging and yet sincere tone when appropriate.

I have viewed the presentation several times and each time I have concluded that the Midland FFA Ag. Issues Team is awesome! Good luck at State Convention and in my opinion, you are National contenders.

Dean Engel



Iowa Capitol



Department of Agriculture and Iowa Representatives
April 5, 2021
12



Wallace State Office Building • 502 E 9th St, Des Moines, IA 50319 • (515) 281.5321 • www.iowaagriculture.gov

April 5, 2021

Midland FFA Team,

We enjoyed your visit to the Department of Agriculture on April 5, 2021 to give your presentation entitled "Does our love for meat affect our climate?" Our team enjoyed the presentation and discussion that followed.

The members of the team did an excellent job giving all perspectives of the issue, both pros and cons.

The experts from the Department of Agriculture in attendance included:

- Mike Naig, Iowa Secretary of Agriculture
- Julie Kenney, Iowa Deputy Secretary of Agriculture
- Matt Gronewold, Chief of Staff
- Keely Coppers, Director of Communications
- Mikayla Dolch, Communications Coordinator
- Colin Tadlock, Legislative Liaison
- Dr. Justin Gilsan, State Climatologist

Thank you again for making the trip and elaborating on a very important issue facing agriculture. We wish you well at state and in the future.

Sincerely,

Mike Naig

Just go. I saw you!

The Iowa Department of Agriculture and Land Stewardship is an equal opportunity employer and provider.



Farm Bureau



Jones County Farm Bureau Board
April 6, 2021
10

April 6th, 2021

Midland FFA
Wyoming, IA 52362

Dear Midland FFA Team,

Thank you for the opportunity to view your presentation on meat diets and their impacts on the environment and economy to the Jones County Farm Bureau on April 6th at 7:30pm. I along with my cohorts had the pleasure of observing the Midland FFA's presentation in a forum type setting. Not only were we in awe of the amount of research and effort these young leaders put into the presentation but we were amazed by their ability to take on varying viewpoints while in character.

Each and every one of the FFA members presenting did an exceptional job staying focused and coming in prepared and in a professional manner for their presentation. These members maintained composure while receiving feedback and answering questions our board members had about their presentation.

Our Farm Bureau board was honored to be able to witness the Midland FFA Team's presentation. It is evident that the topic they chose to present on was well thought out, planned, practiced, researched, and was executed with pride. It is easy to see their passion surrounding the topic of meat diets and the impact it has but they did an outstanding job representing all sides of the issue. We understand the amount of time and effort these members put into their presentation and commend them for their work advocating for the agricultural industry and for tackling this topic. The members did a great job paying attention to detail with their research, discovering probable solutions to discuss in their presentation, and representing our youth leaders. These members will go the distance with the skills they have acquired throughout this event. Again, it was a blessing and a privilege to bear witness to their presentation. Congratulations and best of luck in your future endeavors to the Midland FFA Team!

Sincerely,

Chelsea Arensdorf
Jones County Farm Bureau Board Member



Iowa State University Sigma Alpha



Wyoming High School
Platform – Webex
April 12, 2021
14

To Whom It May Concern:

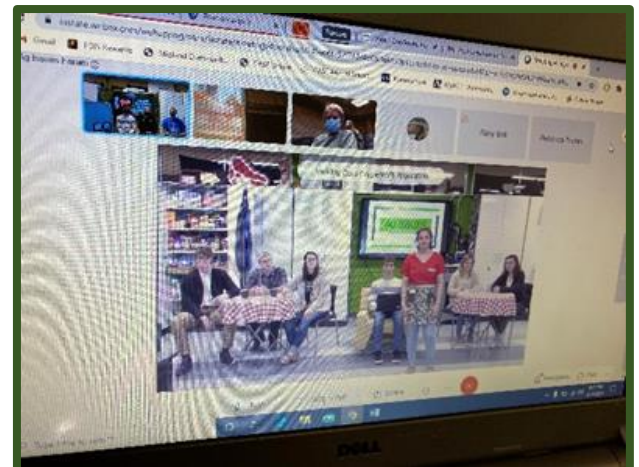
I had the great opportunity to listen and discuss with the Midland FFA Ag Issues Team, the controversy surrounding animal agriculture, and how this is affecting our world. This forum was presented to Sigma Alpha at Iowa State University, a professional sorority for women in agriculture.

From the beginning, it was very evident that these members were well informed and knowledgeable about their topic. The team did an excellent job of identifying their issue, and then elaborating on it through a variety of viewpoints on either side. Each side of the issue was well presented and gave audience members a great opportunity to think critically about how animal agriculture affects our world. The presentation was supplemented with visuals that added to the overall effectiveness of their discussion.

Following the presentation, audience members were able to ask questions and the team members did a great job of answering them in a thoughtful and concise manner. This solidified how knowledgeable and prepared the team was. Overall, I was extremely impressed with this group and thoroughly enjoyed getting to listen to their discussion.

Sincerely,

Sydney Stender & Iowa State University Sigma Alpha



WMT – Big Show



Wyoming High School Platform – Radio

April 16, 2021

Unknown; Listening area covers Iowa, Illinois, Missouri,
Minnesota, and Wisconsin



News Radio 1040 WHO

News Radio 600 WMT

andypetersen@iheartmedia.com

Andy Petersen

Co-Host

America's Premiere Farm and Consumer Radio Program heard worldwide on the iHeart Radio App.

July 29th, 2021

Midland FFA Issues in Agriculture Team:

Thank you for allowing me to record your 2021 State Championship winning contest entry titled "Does our Love for Meat Affect Our Climate" for later play-back on my radio show, I very much enjoyed my time with you. I was impressed at your thorough preparation, immense knowledge and comfortable presentation of the wide variety of perspectives involved in the issue.

Portions of your presentation aired on The Big Show during our live coverage the 93rd Iowa FFA Leadership Conference April 19th and 20th, reaching a wide mix of producers, consumers and influencers in parts of 44 states and worldwide on the iHeart radio App.

Congratulations on your much deserved Iowa State Championships and I wish you best of luck at nationals, you all have a bright future ahead of you as you work to feed generations of Americans to come!

Sincerely,

Andy Petersen

Andy Petersen

Good luck at Nationals!!!

