

# Climate, Cattle & Conversation

*Young Oregon Angus enthusiast offers solutions to help others advocate for the beef industry.*

*by Kindra Gordon, field editor*

Cattle and climate change — or more specifically, cattle's presumed negative effect on the environment and climate — is a reoccurring news headline that has plagued the beef industry. While many may prefer to dodge this conversation, one young ag enthusiast has done her homework, armed herself with the facts and stepped up to the plate to teach others that cows offer more of a solution than problem to global environmental woes.

"It is time for beef producers, marketers, packers and consumers to be proud of beef's synergistic effects on our ecosystem,"

says Jonwyn Ayres, a fifth-generation cattle producer and third-generation Angus breeder who hails from southern Oregon.

Ayres notes that from her research, she has learned that "Any current protein alternative looks to have a much harsher impact on our environment, health and pocketbook, than good old, one-ingredient, carbon-capturing, nutrient-dense beef."

Over the past year, she has shared her defense of the beef industry

with audiences throughout her state and across the nation, including as a prepared public speaking contestant at the 2021 National FFA Convention, via several ag advocacy workshops she has conducted with middle and high school students during her past year as an Oregon

finished second in Oregon FFA's state sophomore speech competition.

While it was a good accomplishment, Ayres, who has shown cattle since she was a tot, says, "I was frustrated in myself; I knew I could do better."

Thus, a week or so after the

event, she told her FFA advisor she planned to change her topic to something she was passionate about — cows.

She jokes, "I told him I wanted to talk about cow farts, and he rolled his eyes."

The then-teenager wasn't joking. It was the end of 2019, and cattle were



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— Jonwyn Ayres**

state FFA officer and at the Oregon Cattlemen's Association Convention.

How did she become so knowledgeable and confident about beef's beneficial role in our environment? It's a journey that began because of several factors: her cattle background, her competitive spirit, and her interest in "cow farts" or the lack thereof.

## Wanting to 'do better'

Five years ago when Ayres was just a high school sophomore, she

smack-dab in the crosshairs of the climate discussion with New York Representative Alexandria Ocasio-Cortez blaming "cow farts" for the planet's demise in her early versions of the Green New Deal.

Ayres decided to do a deep dive into the topic and educate herself to find the truth. She acknowledges, "At first it seems like a negative topic, and I started out timid."

But, through her diligent homework and eagerness to learn, she unearthed many articles,

books and specialists that factually explained why and how cattle actually help the environment through their ruminant digestive processes, carbon sequestration abilities, and contributions to soil health. Ayres even had a one-on-one Zoom conference, lasting three hours, where she visited with professor Frank Mitloehner at the University of California, Davis. He is a friend to agriculture and one of the world's leading authorities on greenhouse gas emissions.

As a result of her tenacity, Ayres gained the wisdom and voice to speak confidently for the cattle industry she is so passionate about. With each opportunity she has to present to an audience, she strives to share facts that help others understand the good that cattle offer (see sidebar for more).

She aims to get audiences to consider other industries and their effect on the environment.

As one example, she points out, "I wonder if Hollywood knows that choosing a jetless lifestyle would save 1.6 tons of carbon from entering the atmosphere per trans-Atlantic flight, per passenger; while choosing a meatless lifestyle for an entire year would only save 1,600 pounds (lb.) of carbon emissions."

## Continuing to improve

This fall, Ayres will move to Kewanee, Ill., to attend Black Hawk College and be a member of their livestock judging program. She is interested in science, ag economics and may eventually pursue law school with a focus on environmental and water policy.

"I love researching this industry and speaking up for it," she says.

She will continue her involvement

in raising Angus cattle with her family, being involved with the National Junior Angus Association (NJAA), as well as pursuing several final FFA goals. She will continue to share her beef industry knowledge with others, and she encourages

others to do the same.

She notes that today's research suggests cattle production in the United States only accounts for 1.9% of greenhouse gas emissions — a number once wrongly exaggerated to be 18%. She points

## How Cows Benefit Our Environment



Oregon's Jonwyn Ayres strives to help others understand the digestive process of a cow is "a grass-grazing wonder of science."

She explains if humans ate a bunch of grass, "We would get little to no nutritional value, not to mention a super-bad stomachache."

Yet because of cattle's ruminant digestive system, they can easily convert low-quality forages into high-quality nutrients.

Specifically, inside the rumen, fermentation of ingested biomass occurs with the help of tiny microorganisms. These "gut bugs" make the ruminant digestive system much more efficient at pulling calories out of forage than any other

digestive system known to man, Ayres explains.

A byproduct of ruminant digestion is methane, which is primarily burped and exhaled by cattle — not farted, as some legislators and Hollywood types incorrectly promote. While methane is one of the three main greenhouse gases, along with nitrous oxide and carbon dioxide, Ayres says what many don't realize is even though this invisible gas can trap the sun's heat, methane also degrades ten times faster than other greenhouse gases in our atmosphere. From her research, she has learned anything that decomposes emits methane, including uneaten dead and dying grasses. Even without cows, methane still exists.

She adds, "When cattle consume and digest this forage, there are vastly more benefits than drawbacks. Additionally, grazed grasslands have the ability to offset a portion of methane produced by cattle by promoting microbes in the soil that break down methane."

She also points out that grazing cattle can actually reverse the trend of carbon emission. How? Because when livestock graze on grasses and other forages, the plants are forced to stay in the growing cycle longer. The process of grazing makes photosynthesis happen faster and more frequently. As a result, the higher photosynthetic rates per acre, the more carbon is sequestered, or captured, and stored in the soil.

Moreover, Ayres says studies of grazing cattle have shown a 1% increase of organic carbon within the top 4 inches of the soil profile of grazed land. This is approximately the equivalent of 11 tons of carbon being stored per acre per year.

As awareness increases for agriculture's ability to improve soil health and store carbon through practices like managed grazing and no-till farming, Ayres says she is encouraged to learn many experts are becoming proponents of the benefits of livestock production. She hopes to continue sharing information to continue building positive awareness and appreciation for modern agriculture.

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out, “Unfortunately, this new figure has not yet reached the mainstream due largely to anti-animal agriculture agendas.”

She’s determined to paint a different, more accurate picture.

“Cattle’s digestive processes, greenhouse gas emissions, carbon sequestration abilities and soil benefits need to be better explained in order for all consumers to understand they can eat beef with not just a clear conscience, but a green one,” she says. “Animal agriculture is progressive by nature. Through modern management practices, genetic indicators and new selection methods, the industry is continually improving. Left to their own



*Author’s note: Jonwyn Ayres continues her ag advocacy outreach through her social media outlets, including Facebook, Instagram and via the hashtag #ourmotherearthlovesbeef. She recommends two books to help others become empowered ag advocates. They are: Cows Save the Planet: And Other Improbable Ways of Restoring Soil to Heal the Earth by Judith D. Schwartz and Defending Beef: The Case for Sustainable Meat Production by Nicolette Hahn Niman. *

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