Change The Way We Meat

Sustainable Meat Industry

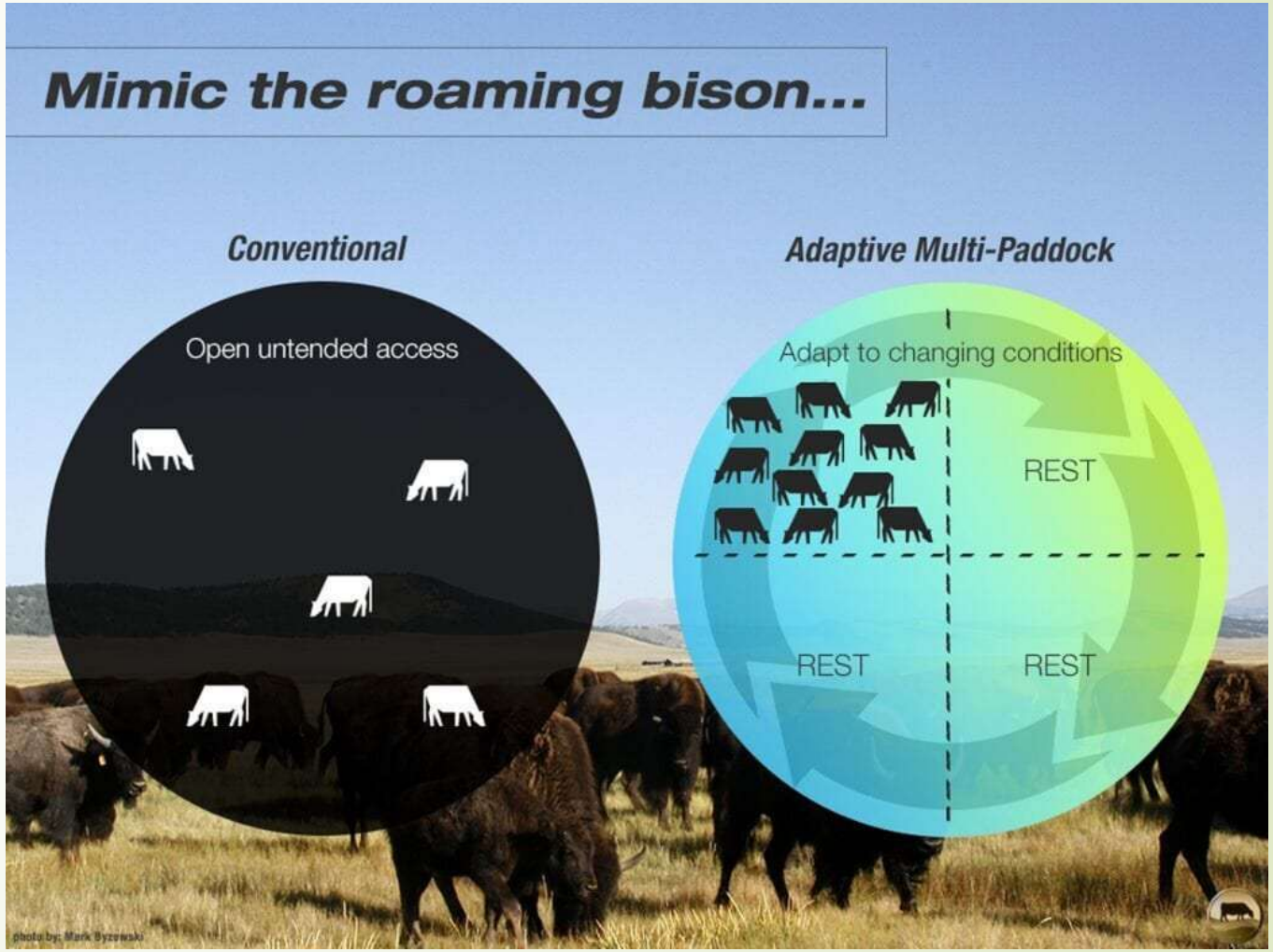
By Ronaldo Moreno, Cassandra Martin,
and Avantae Gibbs

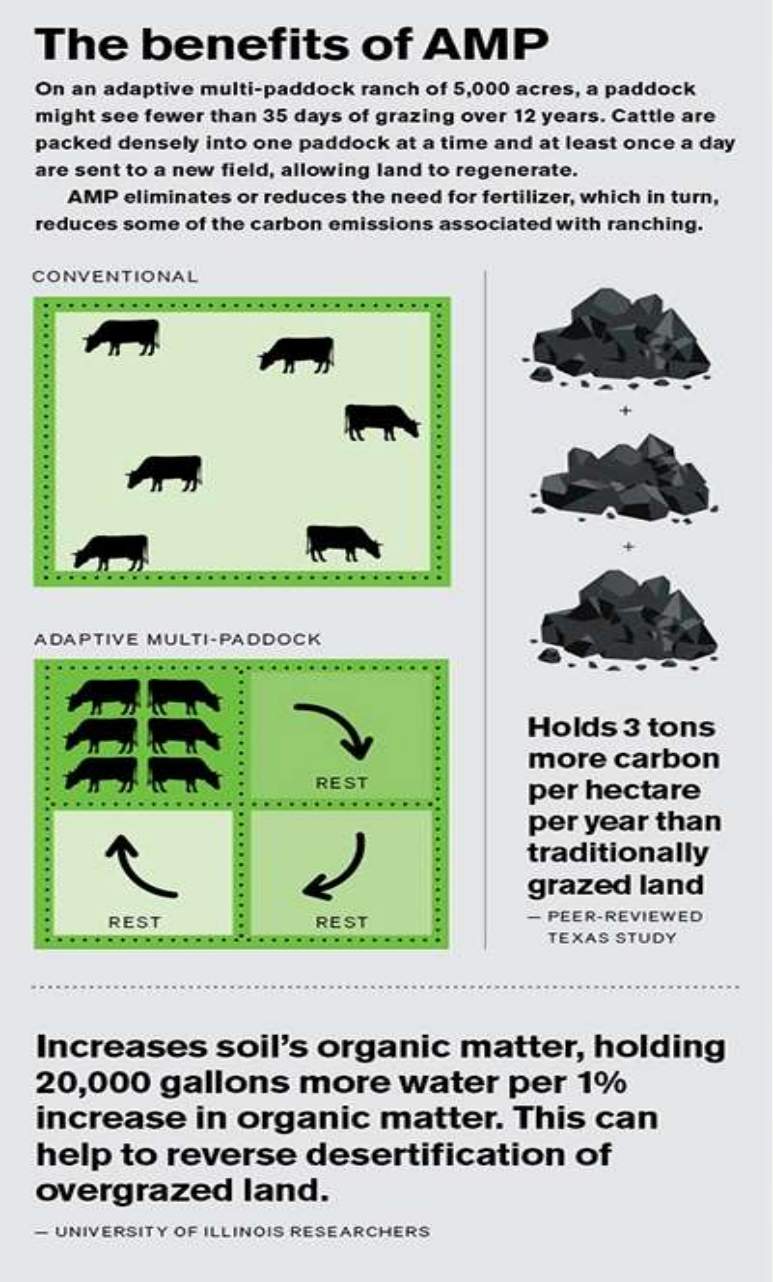
Climate Change

- Climate change is an issue that needs **immediate action**. There are not many ways to combat climate change that is affordable to the average American, let alone college students. Addressing the **waste** and **pollution** of the meat industry is an issue that students and the public can remedy without sacrificing a great deal.

The Meat Industry

- The meat industry, particularly the beef industry, is one of the largest sources of CO2. Promoting adaptive multi paddock (AMP) grazing can result in a reduction in emissions.





Adaptive Multi-Paddock (AMP)

- Highlighting the importance of supporting AMP grazing through grass fed beef will hopefully change the way students approach their grocery shopping and choice of restaurants. It has the potential to change the way we think about our food and can serve as a victory in the fight for climate change.

Grass Vs. Corn

- Projects, Short Films, and Educational Material geared towards the ASU student body would bridge the gap and give students a better understanding of what they are eating.
- Currently its hard to tell the difference between corn- and grass-fed meat so more education can help with better decision and eating choices.

Grass-Fed

- **What it means**: The animal ate only **grasses** and **forages** (like hay) for the length of its life, starting when it was weaned off its mother's milk. The label is regulated by the USDA's Food Safety and Inspection Services (FSIS) but isn't strictly enforced.
- **How it's regulated**: The producer must send documentation to FSIS stating that its animals are raised on an **all-grass diet**. The claims then must be verified by USDA auditors, which happens from an office rather than an in-person visit.

Grass-Fed (CONT'D)

- Grass-fed cows get more nutritionally complete food because they eat what the bovine digestive system is made to digest. Although grass-fed beef has a reputation for being leaner than conventionally-raised beef, this is not the case when producers manage livestock responsibly.

https://arrowquip.com/

Grass-Fed (CONT'D)

https://ceh.org/yourhealth/label-education-meat/

- **Keep in mind**: The USDA's grass-fed label refers **strictly** to the animal's diet and has nothing to do with whether it did or did not receive **hormones** or **antibiotics**. If those are concerns for you, you can check for the American Grassfed Approved label, which is issued by the **American Grassfed Association** (AGA), not the government. Products bearing the AGA label must come from animals fed a diet of 100 percent forage, raised on a pasture, and never treated with hormones or antibiotics.

Corn-Fed

- Corn-fed cows can spend up to **6 months** eating grain. Corn helps cattle gain weight faster, which is desirable for producers – not the cattle or the consumer. The problem is the nutritional benefits of grass-fed beef decline as soon as the cow enters a feedlot.
- Cows are ruminant animals, meaning their **digestive system** is meant to digest tough plants like **grass** and **weeds** – not corn, which is high in calories and relatively low in fiber.

Corn-Fed (CONT'D)

- Corn-fed beef tends to be heavier because of the higher fat content. Meaning meat producers have more product to sell in a shorter time period than it takes for grass fed beef to produce the same cow. Because there is a higher fat content, corn-fed beef tends to have a buttery taste.
- Lacks a healthy balance of omega-3 and 6 and the rich CLS vitamins. In addition to that, corn-fed beef will also have more of an accumulation of residual toxins from **antibiotics** and **chemicals** in its fat and organs, such as the heart

The Environmental Impact

Positive

- A lot can be said about the positive impact that **grass-fed** beef has on the environment. Ecological transformation can be noticed on farms with regenerative grazing practices. By implementing rotational and multi-species grazing, increased levels of biodiversity in soil as well as higher rates of carbon sequestration.
- Grass-fed cattle who spend their lives in well-maintained pastures are less prone to **infections**, **less stressed**, and have a better **quality** of life overall. Grass-fed cattle also live longer than corn-fed cows because they reach maturity later in their natural diet.

https://www.discovermagazine.com/

The Environmental Impact

Negative

- The massive scale of **corn-fed** beef production is a problem for the planet. Between a third and 60% of annual corn production in the US goes to animal feeds, most of that to conventionally raised cattle. This large-scale corn production has a substantial negative environmental impact.
- Intensive **corn** production contributes to **air pollution**, from a combination of **aerosolized fertilizer** and **pesticides**. Runoff from fertilizers used to produce corn at an industrial level also contributes to **water pollution**, leading to toxic algae blooms and other issues. Poor soil quality results in decreased carbon sequestration and a lack of nutrients, directly affecting the nutritional benefit of anything grown.
- With a corn-based diet, cows are more likely to develop conditions like **acidosis** and **bloat** because the corn turns the normally alkaline sections of the digestive system acidic.

Personal Interview

- Performed personal interviews on campus and at the tailgating section at ASU's football game (Sun Devils vs. Oregon) Nov. 18th.
- Interview with ASU professor, filmmaker, and AMP grazing expert, Peter Byck.
- https://brass-tarpon-fepz.squarespace.com/

Informational Resources

- American Grassfed Association | americangrassfed
- Grass Fed Beef vs Grain Fed Beef (What's the Difference) | The Bearded Butchers - YouTube
- Green Vista Farm Grassfed Beef and GMO free pork Wooster Ohio
- GRASS-FED vs GRAIN-FED steak experiment which is best? - YouTube

Resources

- https://sevensons.net/grass-fed-vs-corn-fed-beef
- https://arrowquip.com/blog/animal-science/guide-to-grass-fed-cattle/
- https://awellfedworld.org/issues/climate-issues/grass-fed-beef/
- https://ceh.org/yourhealth/label-education-meat/
- https://certifiedhumane.org/meat-labels-like-organic-grass-fed-actually-mean-whether-care/