



BEEF PRODUCTION IN THE MODERN AGE

LEARNING GOALS

- To analyze how environmental and economic conditions shape the beef industry.
- To evaluate the pros and cons of local and global beef production in different regions.
- To practice drawing connections between local challenges and global contexts and best practices.

ASSIGNMENT

Estimated Time: ~19 min

- Watch [“Cattle Industry Continues to Threaten Rainforest”](#) (5:13) *published in 2008
- Watch [“The Hidden Costs of Hamburgers”](#) (~7min) *published in 2012
- Watch [“Hawaii Cattle Company Looks to Expand Supply of Local Beef”](#) (3min)
- Discussion Prep: Read [“While not perfect, Cattle Ranching Has Benefits”](#) (2 min) and [“How Is Growing And Slaughtering Cattle Pono”](#) (2 min)

TERMINOLOGY

- **Industrial Food** - the modern model of food production which makes extensive use of inputs such as chemical pesticides and fertilizers, and antibiotics
- **Concentrated Animal Feeding Operation (CAFO)** - a type of husbandry that is concentrated in a small land area. Feed is brought to the animals rather than the animals grazing.
- **“Grass-finished”** - the cattle ate cow’s milk or grass/forage their entire lives
- **“Grass-fed”** - the cattle’s diet may have started with grass, but then been supplemented by or replaced with grain (100% Grass-fed, on the other hand, does mean cattle ate nothing but grass).

KAHOOT QUIZ

- Go to Kahoot.it or use the Kahoot mobile app and enter the pin 09086634
- Or, use [this link](#)

DISCUSSION QUESTIONS

- How does increasing demand for beef in China and other countries contribute to deforestation in countries a continent away?
- In the Al Jazeera English video, one of the reporters describes a Carbon Credit system. What is this and how would it help to protect the Amazon?



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DISCUSSION QUESTIONS (continued)

- In what ways does beef contribute more to global warming than other meats or plants?
- What are some key features of CAFOs?
- In Hawaii, why do we ship most calves to the mainland and import processed beef?
- What social factors are shifting the industry a little away from this practice?
- The news report, "Hawaii Cattle Company Looks to Expand Supply of Local Beef", describes Kunoa Cattle's vision and business operations. Do you think this is a positive development or not?
- Debate: According to the two opinion pieces in the Maui News, what are the pros and cons of the cattle industry in Hawaii? Do you agree with one of the authors more than the other? Discuss your perspective with others.

ADDITIONAL RESOURCES

- Watch: "[Why Beef is the Worst Food for the Climate](#)" (4:37min)
This video by Vox charts the environmental impacts of common foods and breaks emissions down into their different sources. It explains how beef is such a large source of greenhouse gases.
- [Interview with Michael Pollan](#) (10-15min)
This is an interview by PBS with Michael Pollan, a well-known journalist and author of the award-winning *The Omnivore's Dilemma*. In this interview, he discusses feedlots, how they became the main mode of beef production, and what their impacts are for both cattle and human health as well as the environment.

IDEAS FOR ACTION

Easier

- Reduce the environmental impact of the cattle industry by eating less beef: once a week opt for the chicken instead or save beef for special occasions.
- Research the pros and cons to various alternatives to the CAFO form of industrial beef production being implemented by farmers around the world.
- The Al Jazeera English video was published in 2008. Has deforestation due to the cattle industry increased or decreased in the Amazon since then? Research and discuss.

Medium

- Research Hawaii's environmental regulations regarding cattle and how the industry affects our islands. Consider the pros and cons and write to your city and county legislators and tell them what you think should be changed and why it matters to you.
 - OR write a "Letter to the Editor" similar to the ones you read as an assignment or an Op-ed for a school or local newspaper.



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IDEAS FOR ACTION (continued)

- Visit a cattle farm on your island and interview a farmer on their perspective of Hawaiian cattle's place in the global beef industry.
- Raise awareness: hold a viewing of a meat industry documentary and hold a discussion of the documentary afterward.
 - Invite a teacher familiar with sustainability to help guide the discussion or prepare some discussion questions yourself!

Hard

- Policy advocacy: research bills in the city council and state legislature related to the beef industry. Write and submit testimony.

HAWAII CORE STANDARDS FOR SOCIAL STUDIES (HCSSS) LINKS

- Content Standard [SS.WH.8.12.1](#)
- Content Standard [S.US.12.8.1](#)
- Content Standard [SS.US.12.16.2](#)
- Content Standard [SS.MHH.4.9.1](#)
- Action Projects link to [SS.PID.5.7.1](#)

This lesson was created by Paige Lockwood.