

BITING DOWN ON CLIMATE CHANGE

Meat, particularly red meat, is one of the most environmentally costly consumption choices available. At Mt.Holyoke College in 2016, 41.7% of responding students identified as non omnivorous consumers, making MHC students some of the most environmentally conscious consumers in America! However, the dining options on campus don't always match the dietary demands of the student body. If students took the initiative to push for less red meat in the new centralized dining area, it could astronomically lower the ecological footprint of the college! Take a look at the numbers!

Meat and Emissions

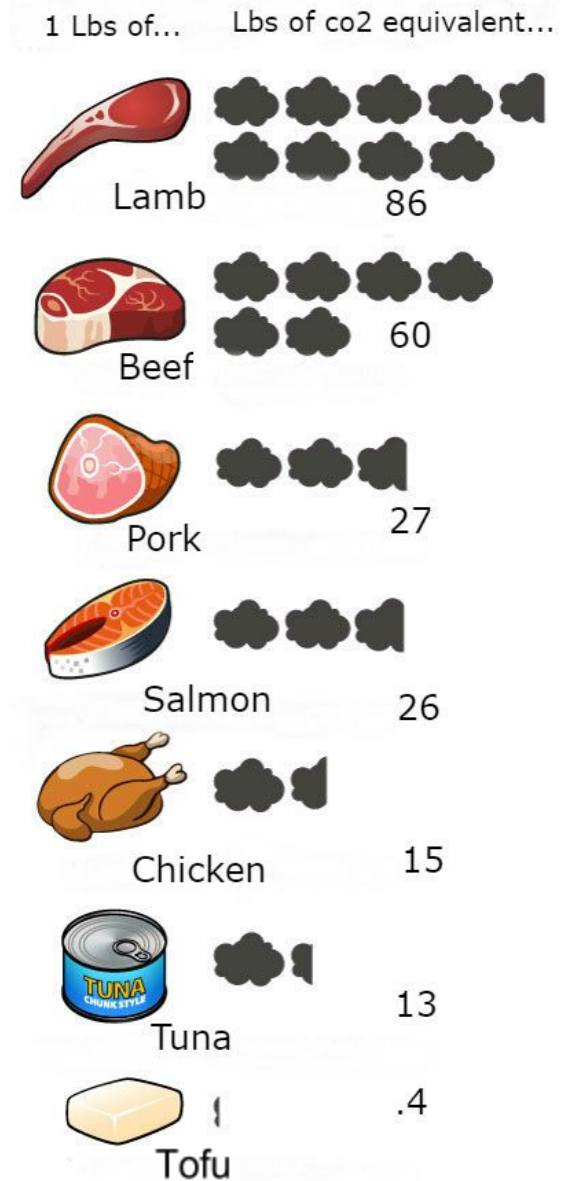
- **18% of all emissions** across the globe result from the **raising of livestock** (R.M.)¹
- Almost **half** of the **total CO₂ emissions** due to food consumption comes from **meat**. (A.H.)²
- **Red meat** such as **beef and lamb** is responsible for 10 to **40 times as many greenhouse gas emissions** as common vegetables and grains (J.Z.)³



Figure 1: water consumption in the production process for 1 lb of different kinds of meat

- If the world reduced meat consumption by **just 15%**, it would have the same impact on reducing greenhouse gas emissions as **taking 240 million (240,000,000) cars off the road** (R.M.)⁴

How big is your meats carbon footprint?



MotherJones R.M.

Figure 2: Lbs of (Co2 equivalent) greenhouse gas emissions associated with 1 lb. of different types of protein



Figure 3: Statistics on agricultural resource use

Scientific American

¹<http://shrinkthatfootprint.com/food-carbon-footprint-diet>

²<http://www.theisthmus.com.au/2016/06/the-environmental-burden-of-animal-agriculture/>

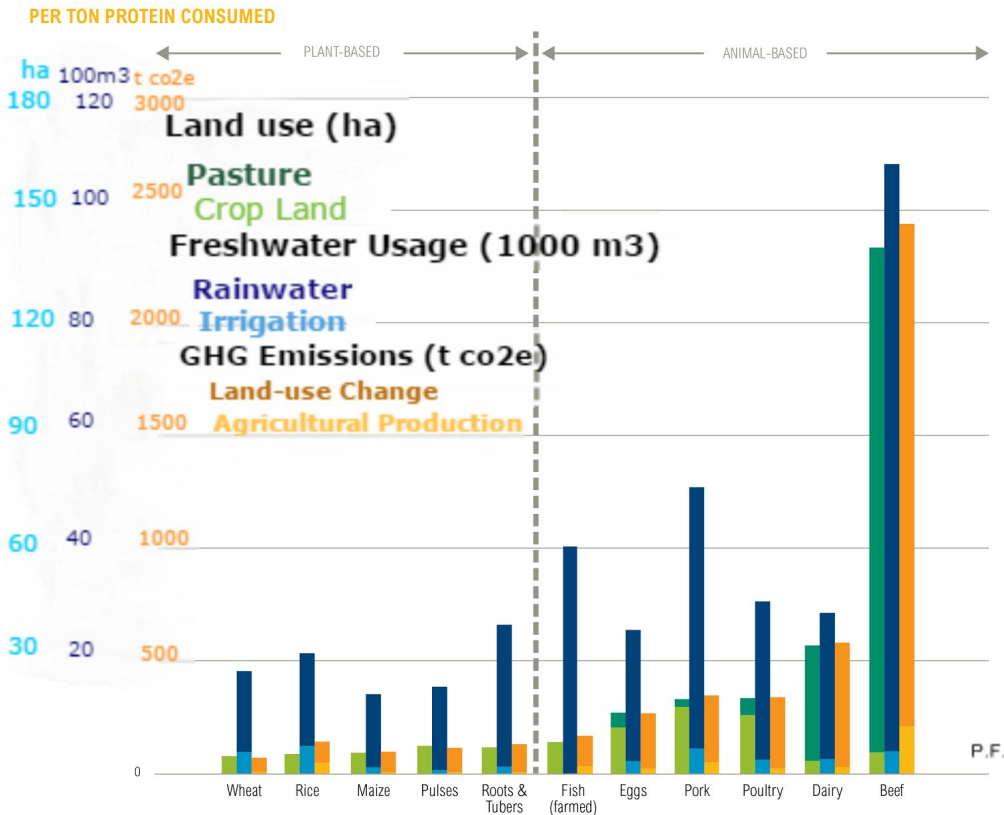
³ 2016 Collection of Sustainability Factsheets

⁴<http://www.dailykos.com/story/2015/4/20/1378914/-For-every-burger-skipped-you-save-enough-water-to-shower-with-for-the-next-3-5-weeks>

Moderation Goes a long way!

- **109 grams** of protein is available per capita in the U.S. and the recommended daily allowance is **56 grams** of protein per adult per day (P.F.)⁵
- **Americans** eat 122 kg, or **270 lbs of meat** a year on average (J.Z.)⁶
- About **20% of all red meat** produced in the U.S. is **thrown away** as waste (P.F.)⁷
- **40%** of the food in the US is **thrown away**, resulting in a **165 billion dollar waste** each year. (A.H.)⁸

Animal-Based Foods Are More Resource-Intensive than Plant-Based Foods



wri.org/shiftingdiets

WORLD RESOURCES INSTITUTE

Figure 4: Graph of various resources consumed through livestock production.

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- More than **one third** of all raw materials and fossil fuels consumed in the U.S. are used in animal production(J.Z.)⁹
- Livestock consume **30% of all grains produced**— and cattle only convert 1% of their feed into human edible caloric red meat (P.F.)¹⁰

Taking Action

- By eating **one less hamburger** you save enough water to shower for the next **3.5 weeks** (R.M.)¹¹
- By eating **beef only once a week** you save **1,850 gallons** of water and **30 kg of greenhouse gases** (A.H.)¹²
- Replacing **beef** with **chicken** for 1 year reduces the annual carbon footprint by **882 pounds CO₂e**. (A.H.)

Alternative sources of protein:

1. Soy
2. Beans or edamame
3. Chickpeas or Hummus
4. Nuts
5. Tempeh
6. Lentils
7. Peas
8. Quinoa
9. Buckwheat or soba
10. Tofu
11. Amaranth

⁵ <http://www.news.cornell.edu/stories/1997/08/us-could-feed-800-million-people-grain-livestock-eat>

⁶ <http://science.time.com/2013/12/16/the-triple-whopper-environmental-impact-of-global-meat-production/>

⁷ <http://www.climatecentral.org/news/studies-link-red-meat-and-climate-change-20264>

⁸ <http://www.npr.org/2012/09/21/161551772/the-ugly-truth-about-food-waste-in-america>

⁹ <http://www.onegreenplanet.org/animalsandnature/facts-on-animal-farming-and-the-environment/>

¹⁰ <http://www.smithsonianmag.com/science-nature/beef-uses-ten-times-more-resources-poultry-dairy-eggs-pork-180952103/>

¹¹ <http://www.climatecentral.org/news/studies-link-red-meat-and-climate-change-20264>

¹² <http://www.meatlessmonday.com/about-us/why-meatless/>