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Does Eating Greens Help in Going Green? An Analysis of Vegan Diet on Sustainability

Jaime DeVita
SUNY Geneseo

Jackie Magee
SUNY Geneseo

Genna McCormack
SUNY Geneseo

Kevin Thompson
SUNY Geneseo

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Does Eating Greens Help in Going Green?



An analysis of vegan diet on sustainability

How big is your food print?

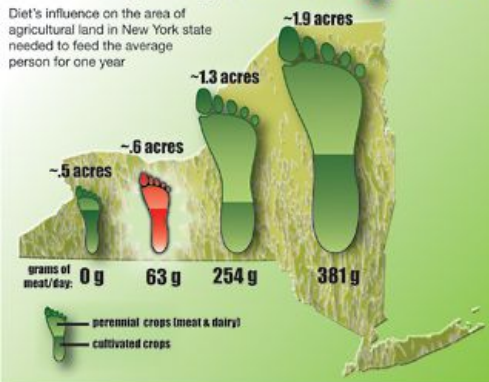


Figure 1: Carbon footprint of individuals based on the grams of meat eaten per day (Castañé & Antón, 2017).

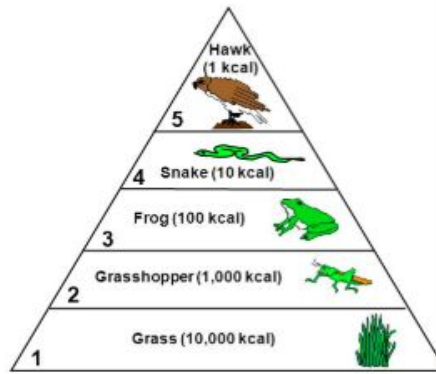


Figure 2: Visual representation of energy loss between trophic levels(kcal) ("Energy flow through ecosystems", 2018).

Cut out the middleman!

Plants alone provide you with approximately 1,000 times more energy than animals!

Maximize your energy intake efficiently with the **vegan diet!** (Berners-Lee, Hoolohan, Cammack, & Hewitt, 2012.)

Ratio of different inputs to animal outputs	Grain Fed (kg): Meat Produced (kg)	Fossil Fuel Energy Input (kcal): Protein Energy Output (kcal)
Beef	13:1	40:1
Eggs	11:1	39:1
Pork	5.9:1	14:1
Milk	-	14:1
Turkeys	3.8:1	10:1
Chickens	2.3:1	4:1

Table 1: Table showing the ratio of grain and fossil fuel input and their respective meat product output (Sabate & Soret, 2014).

The meat diet requires more energy, land and water resources than the **vegan diet** (Pimentel & Pimentel, 2003).

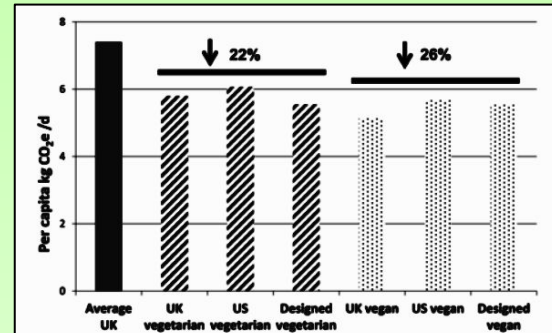


Figure 3: Changing to a vegetarian or vegan diet reduces GHG emissions by 22-26% (Berners-Lee, Hoolohan, Cammack, & Hewitt, 2012).

The amount of grain fed to US livestock is sufficient to to feed **840 million people on the vegan diet** (Pimentel & Pimentel, 2003).

Citations:

- (1) Castañé, S. and Antón, A., 2017. Assessment of the nutritional quality and environmental impact of two food diets: A Mediterranean and a vegan diet. *Journal of Cleaner Production*, 167, pp.929-937.
- (2) "Energy flow through ecosystems" by OpenStax College, Concepts of Biology, CC BY 4.0; download the original article for free at <http://cnx.org/contents/b3c1e1d2-839c-42b0-a314-e119a8aafbdd@9.10>
- (3) Sabate, J. and Soret, S., 2014. Sustainability of plant-based diets: back to the future. *The American journal of clinical nutrition*, 100(suppl_1), pp.476S-482S.
- (4) Berners-Lee M, Hoolohan C, Cammack H, Hewitt CN, 2012. The relative greenhouse gas impacts of realistic dietary choices. *Energy Policy* 2012;43:184-90.
- (5) Pimentel, D. and Pimentel, M., 2003. Sustainability of meat-based and plant-based diets and the environment. *The American journal of clinical nutrition*, 78(3), pp.660S-663S.