

Plant-Based Meat vs. Red Meat

Plant-Based Meat as a Substitute to Red Meat

Sadman Shawraz

ENG 21003-E Writing for Sciences

Michael Coppola

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The New York Times journalist, Alina Tugend on September 21st, 2019, published an article, “Is the New Meat Any Better Than the Old Meat?”, where she asked if the plant-based meat can be a better substitute to red meat. Recently, the plant-based meat has gained a lot of attention in the consumer market of the United States. By targeting not only the vegetarians but also the meat eaters, the plant-based meat producers have brought these products at the mainstream. For example, the companies teamed up with fast food chains to bring plant-based meat, such as, Impossible Burger and Beyond Meat, in the reach of everyday meat consumers. Tugend (2019) not only addressed the rapid increase in the plant-based meat and dairy industry, starting from soy, almond and coconut milk, towards plant-based sausage and other meat products, but also discusses the nutritional benefit of these plant-based products as well as its environmental impact when compared to red meat.

To begin with, it was established that there is no doubt that livestock agriculture play is a major contributor to greenhouse gas emissions which was confirmed by the data published by the Food and Agriculture Organization of the UN, as Tugend (2019) notes, “livestock accounts for 14.5 percent of annual worldwide greenhouse gas emissions produced by human activity.” furthermore adding, “Cattle (raised for beef and milk) alone produce 65 percent of livestock emissions.” Livestock emit both CO₂ and Methane, both are major contributors to global warming, in addition, a lot of land area is used to cultivate the food corps for the animals which leads to deforestation and land pollution. Tugend (2019) cited a researcher from the University of Oxford, Joseph Poore, who co-authored an article published in Science Magazine, where he claims that the people of the United States can significantly reduce their carbon footprint by just restricting the consumption of meat and dairy (Poore, 2018). Tugend (2019) also mentioned Mr. Anhang, an Environmental and Social Specialist at the World Bank, who claims that having substitutes to animal meat, is a more realistic approach to tackle the climate change. Thus, it can be said that plant-based meat can reduce our

dependency on livestock and as a result, reduce the emission of greenhouse gases by a large percentage.

However, Tugend (2019) pointed out researchers such as Ricardo San Martin, director & industry fellow at Alternate Meat Program of University of California, who argued that the study done by Heller & Keoleian (2018) does not properly portray the effects of the plant-based meat on the environment since it was primarily funded by Beyond Meat, one of the leading producers of plant-based meat. He also believes that further independent studies need to be conducted and more details are required on the factories' environmental effects, that participate in the production of plant-based meat. Tugend (2019) pointed out the findings of Heller & Keoleian (2019), that beef burger produces 90% more greenhouse gases when compared to Beyond Burger while requiring more energy for the processing. Nevertheless, since the study was funded by Beyond Meat, the producer of the plant-based meat used in the Beyond Burger which does raise the question of biases. To sum up, the plant-based meat itself bears less carbon footprint than beef burgers, but the processing of the plant-based meat can leave a significant carbon footprint which may question if it is well substitute for the animal meat to help the environment.

Secondly, as a substitute to red meat, plant-based meat is free of harmful fats such as cholesterol. Tugend (2019) scarcely discussed on the effects of red meat on her article. Many other studies have been conducted on the health risks that come from the consumption of red meat. For example, research suggest that there is a positive correlation between the intake of red meat and diverticulitis disease, an inflammation in the digestive tract lining (Bakalar, 2019). Another significant study conducted on over half a million people, showed that red and processed meat consumption is directly associated with the increase of overall mortality rate including cancer mortality and death from cardiovascular diseases (Sinha et al., 2009). In summary, Tugend (2019) gave significant

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amount of evidences that portrayed the negative health effects of red meat on humans. As a result, it is only natural for the populace to believe the plant-based meat as very good alternative to red meat.

However, Tugend (2019) doubted the health benefits of the plant-based as she wrote, “if it’s produced for fast-food outlets, it can be downright unhealthy”. Since, the processing of plant-based meat requires the addition of many other ingredients to give it the texture and taste of meat, it can be harmful for the human body. Tugend (2019) also pointed out that, these processed vegetable meats have high calorie count as well as, in some cases, higher sodium content, such as, when comparing Beyond Famous Star with regular meat, “1,550 milligrams of salt compared with 1,210 for its meat brethren” (Tugend, 2019). Therefore, claiming plant-based meat as a healthy substitute for red meat is farfetched, especially when the source of the meat is from fast food restaurants, such as Dunkin’s Beyond Meat Sausage or Burger King’s “Impossible Burger”.

Finally, for plant-based meat to be recognized as a substitute for red meat, Tugend (2019) wrote, “To have an impact, plant-based meat would have to become a staple across the world, replacing beef, goat, pork and chicken.” In the global market, there is still an increase in the consumption of the red meat, regardless of the current increase in popularity of the plant-based meat in the western nations as Michael Siegrist, a professor at ETH Zurich’s Institute of Environmental Decisions, regretfully said, “the consumption of meat is still increasing worldwide” (Tugend 2019). However, the optimism and enthusiasm of plant-based meat producers portray a different scenario. While discussing the plans to expand the market of plant-based meat worldwide, Tugend (2019) reported the words of Patrick Brown, the founder of Impossible Foods, that people will “seek it (plant-based meat) out as a replacement to beef, and old-fashioned, red-blooded capitalism will take care of the rest”. All in all, more study is needed to ensure the health and

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environmental benefits of the plant-based meat before moving forward to substituting it for red meat at a global scale.

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