## **Research Review**

## Conrad Z et al. Greenhouse Gas Emissions, Cost, and Diet Quality of Specific Diet Patterns in the United States. American Journal of Clinical Nutrition. 2023 June;117 (6):1186-1194. doi.org/10.1016/j.ajcnut.2023.04.018.

In order to improve food sustainability, it's crucial to assess how different diets affect sustainability outcomes. This study compared the environmental impacts, costs, and nutritional quality of various diet patterns in the United States.

The researchers sorted participants into diet categories: food group-restricted (such as plant-based and low grain), macronutrient-restricted (like restricted carbohydrate and low fat), and time-restricted diets, based on their daily food and nutrient intake data. They utilized information from the National Health and Nutrition Examination Survey, data on greenhouse gas emissions and food prices from various databases and they used the Healthy Eating Index-2015 to assess the quality of participants' diets.

Diet Pattern	Diet Quality	Greenhouse Gas Emissions	Cost
Plant-based	Intermediate	Lowest	Lowest
Low- grain	Intermediate	Intermediate	Intermediate
Restricted carbohydrate	Intermediate	Moderate to highest	Highest
Low-fat	Highest	Intermediate	Intermediate
Time-restricted	Lowest	Intermediate	Low-moderate

Below is a chart that summarizes the findings:

Most diet patterns come with trade-offs when it comes to sustainability. While some diets might be better for the environment, they might not be as affordable or have the best nutritional quality. Understanding these trade-offs is important because it can help us have better conversations about food and nutrition. By considering the environmental impact, cost, and nutritional value of different diets, we can make informed decisions about what we eat and how we produce food. This information can influence future guidelines on healthy eating, ensuring that they reflect on not only individual health but also the health of the planet.

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