

# Unmasking the Misconceptions about Food Choices – Do Organic, Local, and Vegan Options Infer Sustainability?

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## Introduction

Our choices about what we eat significantly affect our planet. Yet, consumers are unaware of the environmental consequences of food production and intake or have certain beliefs about accuracy of their knowledge that remain unexplored (Gallo et al. 2023). If these misconceptions persist, consequences could be dire: increased greenhouse gas emissions, deforestation, loss of biodiversity, and a rise in diet-related diseases and decline in global public health (Willett et. al 2019). Therefore, it is crucial to identify and categorize the common misconceptions among consumers in what sustainable food is.

## Numerous Definitions of Sustainable Food

Organization Name	Definition of Sustainable Food
The United Nations (UN)	A sustainable food system delivering “food security and nutrition for all” (United Nations. (n.d.).
The US Department of Agriculture (USDA)	The above, and “economic, soil and environmental bases generate food security and nutrition for future generations are not compromised” (U.S. Department of Agriculture (n.d.).
The Oslo Roundtable	Production, consumption by the consumer, the well-being of individuals, and the consideration of future generations Oslo Roundtable on Sustainable Production and Consumption 1994).
UK Sustainable Development Commission	Safety, healthiness, nutrition, livelihood for producers, and support for rural communities (UK Sustainable Development Commission 2005).

## Research Question

**RQ:** What is the level of knowledge US high school and college consumers, have about sustainable food, and how can targeted educational messages improve their understanding and promote more sustainable food consumption practices?

**This research is the first known attempt to assess consumer sustainable food knowledge in the United States using a well-established European measure.**

## Methods

- **Survey:** Two pilot studies using paper and pencil and an online survey (Qualtrics-based) were conducted, with high school and college student participants respectively.
- **Goal:** Understanding what US consumers know and do not know about sustainable food, proposing + testing messages to educate consumers on food sustainability, inform public policy.

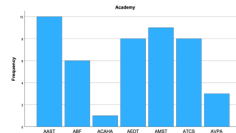


Figure 1: Sustainability Knowledge by Academy – Pilot 1

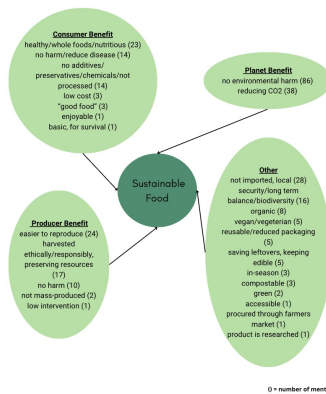


Figure 2: Preliminary Typology of Descriptors of Sustainable Food

## Preliminary Findings and Insights

- There was **substantial variance in interpretation** of what sustainable food is and who it impacts.
- The **complexity of eating (perfectly) sustainably may discourage** consumers from making any changes towards eating sustainably.
- **Tradeoffs are unavoidable:** It should be the goal of public policy and the food/beverage industry, therefore, to help consumers make educated choices.

### Future Research:

The preliminary definitions of sustainable food provided by participants offer the foundation for a typology. Further research using broader consumer panels is proposed to explore the relationships between sustainable food knowledge and demographic and psychographic factors.

### Conclusion:

Results showed **relatively low levels of sustainable food knowledge** which are comparable to the European samples (Hartmann et al. 2021).

## Pilot 1 (High School Sample)

### Setup:

- 45 high school students completed a paper and pencil survey based on established questionnaire, adapted for geographic area (Hartmann et al. 2021).
- 16 multiple choice questions: to assess sustainable food knowledge.
- Questionnaires (**sustainable food knowledge**) were scored based on the number of right, wrong, and "don't know" answers on a 0-16 point scale.

Academy				
	Frequency	Percent	Valid Percent	Cumulative Percent
AAST	10	22.2	22.2	22.2
ABF	6	13.3	13.3	35.6
ACAH	1	2.2	2.2	37.8
AEDT	8	17.8	17.8	55.6
AMST	9	20.0	20.0	75.6
ATCS	8	17.8	17.8	93.3
AVPA	3	6.7	6.7	100.0
Total	45	100.0	100.0	

### Results:

$M_{\text{Sustainable Food Knowledge}} = 8.57, SD = 3.07$ ;  
comparable to previously reported scores:  
 $M_{\text{Switzerland}} = 8.4, SD = 3.4$ ;  $M_{\text{Germany}} = 7.7, SD = 3.3$ ;  
 $p > .05$ ; (Hartmann et al. 2021).

## Pilot 2 (College Sample)

### Setup:

- Sustainable food knowledge tool administered through Qualtrics survey to undergraduate students.
- 145 undergraduate students (71% female) participated in this study: 98.6% age 18-24, 17.9% were of Hispanic/Latino origin, and 62.8% were White or Caucasian.
- Similar to pilot one, participants' responses on the sustainable food knowledge tool (right, wrong, don't know) were scored.
- Participants were also asked to define "sustainable food" in their own words.
- Responses were explored for common themes/variability.
- A preliminary visualization of a typology of descriptors of sustainable food is provided in Figure 1.

### Results:

$M_{\text{Sustainable Food Knowledge}} = 8.11, SD = 3.41$ ;  
comparable to the high school sample ( $p > .05$ ).

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