

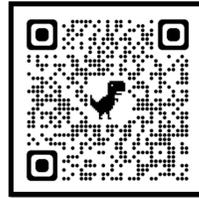
### Abstract

This study examined public perceptions of the effects of dairy farms on the environment. A content analysis of 86 comments made in response to a TikTok video on the dairy farm industry revealed *positive* and *negative* perceptions of the dairy industry based on 6 themes including *informative*, *clarification*, *blaming humans*, *veganism*, *critical*, and *education*. The most common theme was *informative*, encompassing 38% of the relevant comments.

### Introduction

Questions of best practices for the stewardship of the earth are prevalent as researchers and non-researchers alike strive to reduce the effects of human inhabitation on the planet. One area that has attracted recent attention is the impact of the dairy industry on the environment. Longitudinal research on dairy farms has indicated that modern dairy farms have a less impactful presence on the environment due to developments in technology and commitments to lessen greenhouse gas emissions and water and land use (Capper et al, 2009; Dairy Farmers of Canada, 2022; Naranjo et al, 2019). This research examines public perceptions of dairy farms as presented on a popular social media application.

### Methods

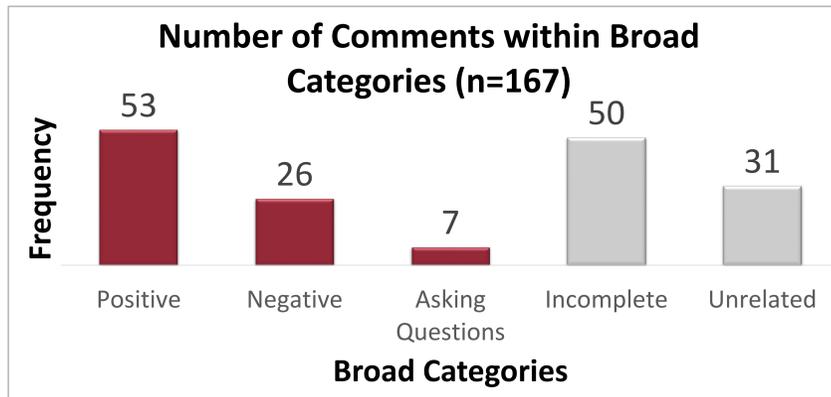


The sample was selected from comments made to a TikTok video by a public figure known for his regular commentary on the dairy farm industry (see QR code). Comments were selected based on their popularity and recency, and their relevance re: views on the dairy industry. The units of analysis were the words, sentences and phrases that depicted key themes in the 87 comments selected for inclusion in the final analysis.

### Results

Initial coding revealed 5 categories of comments, of which 3 were used for subsequent analysis: **positive** (support of the claims in the video), **negative** (criticism of the claims), and **asking questions** (no indication of positive or negative). Within these 86 comments, 6 themes emerged.

**Informative** – which offered scientific sources/critiques of the video and other commentators (positive and negative).  
**Clarification** – which asked for further information and were mostly positive in nature.  
**Blaming Humans** – which argued that humans were the cause of environmental damage.  
**Veganism** – which was critical of vegan diets and claimed they were worse for the environment.  
**Critical** – which critiqued the video’s claims directly and were largely negative.  
**Education** – which referred to a lack of education in those who did not support the claims of the video.



Themes and %	Comment Examples
<b>Informative (38%)</b>	“It lists food production as 26% of global greenhouse gas emissions, when everything is taken into consideration (like supply chain and land use)...” [shortened for brevity]
<b>Clarification (10%)</b>	“historically were farm animals bad for the environment? Asking I generally dont know”
<b>Blaming Humans (8%)</b>	“It’s almost as if humans are the bigger problem. The biggest contributor to climate change is fast fashion.”
<b>Veganism (6%)</b>	“There’s also no technically, economically, or ethically sound alternative to farming either. Their vegan diets are 100x worse for the environment”
<b>Critical (8%)</b>	“...the environmental side of cattle has gotten much better, but the problem is the methane they produce” [shortened for brevity]
<b>Education (7%)</b>	“I know these facts but I’m happy to see them posted for the [ill] informed lol” [misspelled word edited for clarity]

### Conclusions

Findings showed use of scientific research and critical considerations of the video while also revealing biases found in popular culture. Categories and themes indicated that commentators were highly capable of examining and linking scientific research, and most responders agreed that dairy farms had a lessened impact on the environment. Although these findings indicate a proficient use of scientific content to support claims, they also indicate that perceptions are influenced by biases and an inability to apply critical thinking. In many instances, posts blindly supported the views of the content creator while also negating valid critiques made by others.

### References

Capper, J.L., Cady, R.A., & Bauman, D.E. (2009). The environmental impact of dairy production: 1944 compared with 2007. *American Society of Animal Science*, 87(6), 2160-2167. <https://www.doi.org/10.2527/jas.2009-1781>

Dairy Farmers of Canada. (2022). *Assessing our environmental impact*. [https://dairyfarmersofcanada.ca/en/our-commitments/sustainability/environmental-impact?gclid=CjwKCAiAp7GcBhA0EiwA9U0mtvKfS-Tv711JuVuJZ2-fTEmwrHRPxmFsuqoWFkKUsFwB7na1PtPxbBoCKQQQAvD\\_BwE](https://dairyfarmersofcanada.ca/en/our-commitments/sustainability/environmental-impact?gclid=CjwKCAiAp7GcBhA0EiwA9U0mtvKfS-Tv711JuVuJZ2-fTEmwrHRPxmFsuqoWFkKUsFwB7na1PtPxbBoCKQQQAvD_BwE)

Naranjo, A., Johnson, A., Rossow, H., & Kebreab, E. (2019). Greenhouse gas, water, and land footprint per unit of production of the California dairy industry over 50 years. *Journal of Dairy Science*, 103(4), 3760-3773. <https://www.doi.org/10.3168/jds.2019-16576>

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