

Oat Milk as the Default Choice

University of Michigan

Essay:

Executive Summary

M Dining has made strides in its carbon neutrality initiatives by making oat milk the default choice in all campus cafes. This decision aligns with U-M's broader sustainability goal of Carbon Neutrality, particularly in reducing the carbon footprint associated with dairy consumption. By making oat milk the default in all barista-made beverages, the initiative reduces greenhouse gas emissions, conserves water, and optimizes land use, all while promoting social responsibility and accessibility. This initiative has led to a measurable reduction of approximately 20,000 kg of CO₂ carbon emissions in the Fall 2024 semester as compared to Fall 2023 and increased student engagement in sustainability efforts. Furthermore, the replicability of this initiative positions it as a scalable model for other universities aiming to reduce their environmental impact through scope 3 emission reduction strategies.

Environmental Rationale

U-M has established ambitious sustainability targets, including reducing Scope 1 and 2 greenhouse gas emissions by 50% by 2025 and achieving net-zero emissions by 2040. Additionally, the University is working to decrease landfill waste by 40% and procure at least 20% of food from local and sustainable sources. Dairy production significantly contributes to carbon emissions, water consumption, and land use, making it a prime target for carbon neutrality reform. Alternatively, oat milk presents a low-carbon, resource-efficient alternative. Oat cultivation requires 80% less land than dairy milk production, 80% less water, and 60% less energy. A single glass of oat milk generates only 0.225kg CO₂e, while dairy milk generates 0.786kg CO₂e. By making oat milk the default, U-M encourages students to make more sustainable choices, reducing the University's

overall carbon footprint. This initiative also supports social responsibility considerations through community engagement. Reducing dairy consumption promotes animal welfare and offers an inclusive option for lactose-intolerant students. Accessibility and affordability remain central considerations, ensuring all students have access to nutritious and environmentally responsible options. Educational efforts, including onsite signage and outreach campaigns, further reinforce sustainable behaviors within the community.

Implementation Process and Innovation

The transition to oat milk as the default was achieved through a collaborative effort involving dining services, vendors, the Office of Campus Sustainability, and students. M Dining strategically placed oat milk as a default without removing any choice from the customer. Dairy and non-dairy choices include almond milk, soy milk, oat milk, 2% milk, coconut milk, half and half, skim milk, and whole milk. Through using deliberate choice architecture, M Dining was able to guide students toward making a sustainable decision without restricting their freedom of choice and preferences. Stakeholder engagement also helped further reinforce a smooth and effective implementation in the best interest of students. For staff, talking points were developed to use when discussing the initiative with customers (see Appendix A). Baristas asked each customer if oat milk was acceptable as the default in ordered coffee beverages. This question nudges consumers to make a choice and highlights sustainability as an underlying message. The message was reinforced with a sign at the point of purchase (see Appendix B). On our mobile ordering platform, oat milk was moved to the top of the list for dairy and non-dairy options (see Appendix C). To be inclusive of all retail locations, oat milk creamers were added as an option for self-serve areas. An educational campaign was launched to inform students about the environmental and ethical benefits of oat milk. Digital marketing, social media posts, and in-store signage provided transparency and educated consumers on the advantages of oat milk. Additionally, students were instrumental in researching, advocating, and implementing the initiative. Their input shaped the implementation process, and feedback collection ensured that their concerns were addressed in real-time, maintaining the program's effectiveness and relevance.

Impact Assessment & Effectiveness of Measurement

Since oat milk became the default for barista-made beverages, 46% of customers retained oat milk as their choice, while 54% altered or removed milk from their drinks. This shift significantly reduced the dairy-related carbon footprint. Compared to the Fall 2023 semester, CO₂ emissions associated with milk-based beverages decreased by approximately 20,000 kg of CO₂, even with a 25% increase in beverage sales during the Fall 2024 semester. This avoided emissions is equivalent to burning over 20,000 pounds of coal or 50,000 miles driven by an average gasoline-powered passenger vehicle (EPA). Additional sustainability benefits include reduced water and land use, increased accessibility to allergen-friendly options, and heightened awareness of food choices' environmental impact (see Appendix D).

While oat milk is generally more expensive than dairy milk, the flexibility of the program allows for ongoing adjustments based on cost considerations and supplier relations. While we recognize that oat milk is more expensive than dairy milk, we think there is value in the education of the consumer and advancing sustainability awareness. Additionally, we worked with our vendor to source a recommended oat milk for premium quality at a reduced price. Concerns from dairy consumers were addressed through the continued availability of dairy milk as an option. Allergies to oat milk were also considered, with staff ensuring clear communication about ingredient choices. Continuous feedback mechanisms enabled the program to adapt and improve based on student and staff input. The initiative's success highlights its potential for replication across other universities and institutions. Lessons learned from U-M's experience can inform broader carbon neutrality strategies, facilitating a shift towards environmentally responsible food service practices on a larger scale.

Conclusion

The oat milk initiative has successfully reduced emissions, increased student engagement, and advanced carbon neutrality at U-M. The program's long-term impact extends beyond emissions reductions, influencing student behavior and emission policies. By integrating sustainability discussions into coursework and campus dialogues, the initiative raises awareness of food choices' environmental impact and consequences. Students actively participate in ongoing evaluations and advocacy efforts, fostering a culture of sustainability on campus. By encouraging other institutions to adopt similar models, U-M's initiative can serve as a blueprint for impactful, scalable sustainability programs.



Attachment name
Appendix A: Oat Milk Tal...

<https://docs.google.com/...>



Attachment name
Appendix B: Oat Milk Sig...

<https://drive.google.com/...>



Attachment name
Appendix C: Mobile Orde...

<https://docs.google.com/...>



Attachment name
Appendix D: Oat Milk Im...

<https://docs.google.com/...>