

Extended Abstract
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Paper/Poster Title	Gene Editing, Consumer Attitudes, and Rural Economic Development: A Multi-Country Investigation of Non-Browning Bananas
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Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.

Abstract	<i>200 words max</i>
<p>This study explores consumer attitudes towards gene-edited products, focusing on a non-browning banana variant in the Philippines, China, and Japan. Despite gene editing's potential to boost crop yield and reduce agricultural waste, persistent skepticism, rooted in past concerns about genetically modified organisms (GMOs), prevails. Surveys involving 2,700 participants differentiate gene editing from GMOs, anticipating varied acceptance levels. Initial hypotheses suggest that consumers recognizing gene editing's environmental benefits, like reduced waste and CO2 emissions, might respond more positively. Understanding these nuances is crucial for biotechnological industries, policymakers, and agriculture. The research illuminates the complex interplay between consumer perceptions, gene editing, and rural economic development. Clear distinctions between gene editing and genetic modification are vital for fostering acceptance. Additionally, acknowledging gene-edited products' positive environmental impact facilitates their integration into sustainable agriculture. As gene editing technology becomes more prevalent, bridging the gap between consumer sentiment and scientific progress is imperative. This study informs industry practices and policymaking, contributing to discussions on sustainable rural economic development in landscapes shaped by gene-edited agriculture.</p>	
Keywords	Gene editing, Consumer attitudes, Rural economic development, Sustainable agriculture, Biotechnological innovation
JEL Code	D12, Q01, O32 see: www.aeaweb.org/jel/guide/jel.php?class=Q)
Introduction	<i>100 – 250 words</i>
<p>In the realm of agricultural biotechnology, gene editing (GnEd) stands as a revolutionary tool, offering precise DNA manipulation capabilities. This study focuses on understanding consumer attitudes toward GnEd products, specifically examining the reception of Tropic Banana—a product developed through GnEd—in the Philippines, China, and Japan. With gene editing promising enhanced crop production, reduced waste, and potential environmental benefits, this research addresses a critical gap in consumer perception. Despite its potential, previous skepticism surrounding biotechnological products, especially Genetically Modified Organisms (GMOs), raises questions about GnEd acceptance. This study delves into whether consumers can distinguish between GnEd and GMOs and explores their</p>	

attitudes toward these technologies. The research sheds light on the potential impact of these attitudes on the rural economy, especially in countries heavily reliant on agriculture and exports like the Philippines.

Methodology

100 – 250 words

We conducted web-based surveys among 2,700 respondents across the Philippines, China, and Japan to gauge consumer attitudes. The survey focused on the acceptance of GnEd products, specifically the Tropic Banana, and compared it with GMO products like Golden Rice. Statistical analysis was employed to assess adoption tendencies and variations in technology acceptance among the sampled countries. Respondents were asked structured questions regarding their preferences, understanding of the technologies, and willingness to adopt products developed through GnEd and GMO methods.

Results

100 – 250 words

Anticipated findings include insights into consumer awareness and acceptance levels of GnEd products compared to GMOs. We expect to observe varying degrees of acceptance across the surveyed countries. Furthermore, we hypothesize that consumers recognizing the environmental benefits of GnEd, such as reduced waste and potential CO2 emissions reduction, might exhibit more favorable attitudes. Understanding these nuances is crucial for biotechnological industries, policymakers, and agricultural sectors to tailor their strategies and address consumer concerns effectively.

Discussion and Conclusion

100 – 250 words

The study's results illuminate a complex interplay of consumer attitudes, gene editing technology, and its potential implications for rural economic development. Dissecting these perceptions is crucial in shaping policies and market strategies. Consumers' ability to distinguish between GnEd and GMOs signifies a crucial step toward fostering acceptance. Moreover, recognizing the positive environmental aspects of GnEd products, like the reduced carbon footprint, could pave the way for sustainable agricultural practices. As gene editing technology becomes integral to agricultural innovation, bridging the gap between consumer sentiment and scientific advancements is pivotal. Ultimately, this study not only informs the agricultural and biotechnological sectors but also contributes significantly to discussions around sustainable rural economic development in gene-edited agricultural landscapes.