

Gene editing: New study reveals shifting public sentiment

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Gene editing and genetically modified organisms (GMOs) have been topics of significant debate in recent years. A new study from the Alliance for Science, an initiative based at the Boyce Thompson Institute, has revealed a positive shift in public sentiment towards one aspect of agricultural biotechnology, showing that gene editing consistently receives higher favorability ratings than GMOs in both social and traditional English-language media.

The study was published after analyzing data from a five-year period between January 2018 and December 2022. The data provides valuable insights for the scientific community and professionals in science communication.

"Our [sentiment analysis](#) shows that favorability is especially positive in [social media](#), with close to 100% favorability achieved in numerous monthly values throughout our five years of analysis," said Mark Lynas, the study's lead author. "We believe that the scientific community can therefore be cautiously optimistic based on [current trends](#) that [gene editing](#) will be accepted by the public and be able to achieve its promise of making a substantial contribution to future food security and [environmental sustainability](#) worldwide."

The study, published in the journal *GM Crops & Food*, revealed a consistent difference between the favorability of gene editing and GMOs, with gene editing enjoying substantially higher favorability ratings than GMOs. "This could be the result of the relative novelty of gene editing as an issue, which has not—unlike GMOs—been the subject of a decades-long campaign of negative publicity by opponents," Lynas explained.

The research team also noted that the scientific community may have learned from its early deployment of GMOs and made efforts to avoid repeating them as gene editing is used more extensively. "It may also be the case that gene editing—which largely involves DNA alterations that could possibly happen in nature—is less inherently 'scary' than transgenic techniques transferring DNA sequences between unrelated species," Lynas added.

Interestingly, the study found that social media coverage of gene editing has been surprisingly positive in recent years, even as it has reached substantially bigger audiences. "This contradicts often-heard statements about how social media tends to be negative and polarizing: Our analysis suggests the opposite, that social media on this new technology at least has been very positive over time," Lynas said.

While the study reveals a positive trend in public acceptance of gene editing, the authors caution that recent indications of sustained downward trends may be a cause for concern. They emphasize the importance of analyzing changing sentiment over time and monitoring for potential negative shifts in public perception. They highlight the need for ongoing communication and engagement with the public to ensure a better understanding of these technologies.

"The positive coverage of agricultural gene editing in both traditional and social media is encouraging," said Dr. Sheila Ochugboju, Executive Director of the Alliance for Science. "These findings suggest that the battle for [public opinion](#) is not lost, and the scientific community can find hope in the potential acceptance of gene editing technologies."

More information: Mark Lynas et al, Gene editing achieves consistently higher favorability in social and traditional media than GMOs, *GM Crops & Food* (2023). [DOI: 10.1080/21645698.2023.2226889](https://doi.org/10.1080/21645698.2023.2226889)

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