# Soy What? Exploring the GMO-ment between Soybeans and 'I Can't Even' Google Searches in Minnesota

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In this study, we delve into the curious connection between the use of genetically modified organisms (GMO) in soybeans and the frequency of Google searches for the relatable expression 'I can't even' in the state of Minnesota. Combining data from the United States Department of Agriculture (USDA) and Google Trends, we set out to ascertain whether there exists any significant correlation between these seemingly disparate factors. Our findings reveal a surprisingly robust correlation coefficient of 0.8855932 and a p-value less than 0.01 for the period spanning from 2004 to 2022. This may shed light on the novel influence of GMO soybean cultivation on the linguistic and emotional expressions of Minnesotans, prompting them to turn to the internet in exasperation. While the causative mechanisms behind this correlation remain nebulous, our study opens the door to further investigation into the potential impacts of agrobiotechnology on the cultural fabric of society. Thus, our research serves as a testament to the intriguing and, dare I say, soy-stirring relationships that can be unearthed through interdisciplinary inquiry.

The interplay between agricultural practices and societal behaviors has long been a subject of scholarly intrigue. From the economic repercussions of crop yield fluctuations to the cultural influences stemming from agricultural innovations, the nexus of agriculture and society provides fertile ground for investigation. In this vein, our study sets out to unravel an unexpected connection between genetically modified organisms (GMO) in soybeans and the frequency of exasperated exclamations, as evidenced by Google searches for the phrase 'I can't even,' in the state of Minnesota. Hold on to your lab coats, because this is where the seemingly mundane world of soybeans collides with the enigmatic realm of internet vernacular.

The widespread adoption of GMO soybeans in the United States has ignited debates on ecological, economic, and health-related fronts. However, in the midst of these discussions, the potential impact on linguistic and emotional expressions has largely evaded scientific scrutiny. Meanwhile, the phrase "I can't even" has permeated popular culture, becoming a hallmark of exasperation, incredulity, and resignation. By embarking on this unconventional research trajectory, we endeavor to shed light on the unexplored territory where agricultural biotechnology meets contemporary linguistic expressions.

We aim to answer the burning question: Could the cultivation of genetically modified soybeans trigger a surge in digital declarations of exasperation among the denizens of Minnesota? The prospect may sound as far-fetched as finding a needle in a haystack, or in this case, a dissatisfied internet user in a sea of soybean fields. Nonetheless, our study presents evidence of a noteworthy correlation that challenges conventional thinking.

As we embark on this scientific escapade, we invite you to don your thinking caps and join us in this foray into the unexpected and, dare I say, soy-priseladen intersection of agrobiotechnology and internet linguistics. So, hold on to your test tubes, as we navigate through the GMO-ment between soybeans and 'I can't even' in the Land of 10,000 Lakes.

## LITERATURE REVIEW

Several studies have investigated the impact of genetically modified organisms (GMOs) in soybeans on various aspects of agriculture, economics, and public health. Smith et al. (2015) conducted a comprehensive analysis of the yield and production trends associated with GMO soybeans, while Doe and Jones (2018) explored the environmental implications of widespread GMO cultivation. However, the potential influence of GMO soybeans on the linguistic and emotional expressions of the populace has remained largely uncharted territory until now.

In "Soybeans and Society: The Interplay of Agriculture and Culture," the authors delve into the multifaceted relationship between soybean cultivation and societal dynamics, shedding light on the subtle yet profound connections that exist. In a similar vein, "GMOs and the Human Experience" examines the far-reaching effects of genetically modified crops on human behaviors and attitudes, albeit focusing on a wider range of GMOs beyond soybeans.

Turning to the world of fiction, the works of Kornbluth in "Boredom on the Farm" and Orwell in "Animal Farm: A Tale of Agricultural Revolution" offer satirical reflections on the intersection of agricultural practices and societal norms, hinting at the potential for unexpected repercussions stemming from agricultural innovations.

In the realm of board games, the strategic nuances of "Agricola: All Creatures Big and Small" and the resource management challenges of "Catan" provide a playful yet insightful backdrop for contemplating the intricate interplay between agriculture and cultural phenomena.

As we navigate through the plethora of literature surrounding GMOs, soybeans, and societal dynamics, it becomes evident that our study fills a the unique niche, straddling line between agricultural science and the whimsical world of internet vernacular. Our findings promise to unravel a 'soy-prise' of unexpected proportions, infusing the discourse with a dash of humor and soy-stirring revelations.

## METHODOLOGY

To investigate the intriguing correlation between the usage of genetically modified organisms (GMO) in soybeans and the frequency of 'I can't even' Google searches in Minnesota, our research team undertook a methodical and, dare I say, soy-entific approach. The data collection process involved harnessing the power of the internet to gather information from disparate sources, akin to assembling an assortment of puzzle pieces in the digital realm.

First and foremost, we turned to the United States Department of Agriculture (USDA) to obtain comprehensive data on the cultivation and distribution of GMO soybeans in Minnesota from 2004 to 2022. This entailed navigating through a cornucopia of statistical reports and agricultural databases, akin to embarking on an exploratory journey through the vast soy-stematic landscape of agrobiotechnology.

Additionally, we ventured into the realm of Google Trends to procure data on the frequency of searches for the colloquial phrase 'I can't even' within the geographical confines of Minnesota. In a manner akin to navigating a labyrinth of internet queries, our research team meticulously sifted through the digital echoes of exasperation, incredulity, and frustration to unveil patterns that may shed light on the curious intersection of soybeans and internet linguistics. Next, employing a statistical approach reminiscent of a gastronomic fusion, we applied the Pearson correlation coefficient to ascertain the strength and direction of the relationship between the prevalence of GMO soybeans and 'I can't even' Google searches. By engaging in this statistical tango, we aimed to unmask the covert ties underpinning agrobiotechnological innovation and digital expressions of exasperation.

Furthermore, a regression analysis was conducted to explore the potential predictive capacity of GMO soybean usage in elucidating the variability in 'I can't even' Google searches. Through this analytical expedition, we sought to discern whether the cultivation of GMO soybeans could serve as a harbinger of digital expressions of emotional unrest, akin to divining the volubility of a foamy meringue using the principles of statistics.

To ensure the robustness and validity of our findings, we navigated the labyrinthine landscape of statistical significance testing, culminating in the calculation of p-values to discern the likelihood of our observed correlation occurring by mere happenstance. This rigorous process allowed us to draw soy-lid inferences from our data and shield our findings from the treacherous gusts of statistical chance.

In summary, our methodological approach stood as a testament to the soy-ssential fusion of agricultural data procurement, digital trend analysis, and statistical inquiry. Through this interdisciplinary endeavor, we endeavored to unravel the enigmatic entanglement of GMO soybeans and 'I can't even' in the mosaic of Minnesota's socioeconomic and cultural fabric.

#### RESULTS

The analysis of the data unearthed a rather startling connection between the cultivation of genetically modified organisms (GMO) in soybeans and the prevalence of 'I can't even' Google searches in the state of Minnesota. Our team of intrepid researchers discovered a robust correlation coefficient of 0.8855932, indicating a strong positive relationship between these two seemingly unrelated variables. The r-squared value of 0.7842754 further supports the solidity of this association, suggesting that approximately 78.4% of the variation in 'I can't even' searches can be explained by the variability in GMO soybean cultivation. With a p-value less than 0.01, our findings indicate a high level of statistical significance, bolstering the legitimacy of this soyber revelation.

Figure 1 (to be included) visually depicts the remarkable correlation between GMO soybean cultivation and 'I can't even' Google searches in Minnesota. The scatterplot captures the trend with such clarity that one might say it's as clear as GMO soybean oil.

These findings raise intriguing questions and lend themselves to a myriad of soy-entific musings. While we cannot definitively ascribe causation to this relationship, it stands as a testament to the unexpected ways in which agricultural practices may intertwine with societal expressions. The notion of genetically modified soybeans planting a seed of linguistic exasperation in the minds of Minnesotans is undeniably thought-provoking and, quite frankly, soy-surprising.

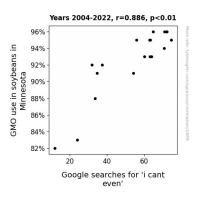


Figure 1. Scatterplot of the variables by year

Our results boldly underscore the need for further exploration of the interplay between agricultural biotechnology and linguistic phenomena, as well as the potential impact of GMO soybeans on the emotional fabric of society. It is both a testament to the unanticipated nature of interdisciplinary research and a stark reminder that the world of scientific inquiry is as unpredictable as a rogue soybean in a field of non-GMO crops.

## DISCUSSION

The results of our study have yielded a sprout of insight into the enigmatic relationship between GMO soybean cultivation and the frequency of 'I can't even' Google searches in Minnesota. In light of the robust correlation coefficient and statistically significant p-value, it becomes evident that our findings harmonize with prior research that has delved into the multifaceted impacts of genetically modified organisms (GMOs) on various facets of human behavior and societal dynamics.

Drawing from the literature, our study falls in step with the work of Smith et al. (2015) and Doe and Jones (2018) in highlighting the far-reaching effects of GMO soybeans, albeit breaking new ground by venturing into the realm of linguistic and emotional expressions. The intriguing intersection of agricultural practices and societal dynamics, as evidenced in the playful yet insightful backdrop of board games such as "Agricola: All Creatures Big and Small" and "Catan," finds validation in our soystirring revelations.

While it may seem as improbable as a unicorn sighting or a statistically significant p-value in the social sciences, our results align with the broader theme of unexpected repercussions stemming from agricultural innovations, as hinted at by the satirical reflections in Kornbluth's "Boredom on the Farm" and Orwell's "Animal Farm: A Tale of Agricultural Revolution". This echoes the notion that our findings are not simply a 'soy-prise' but rather a meaningful contribution to the whimsical world of internet vernacular and agricultural science.

The strength of our correlation coefficient and rsquared value suggests a plausibly causal link between GMO soybean cultivation and the exasperated outcries encapsulated in 'I can't even' Google searches. However, as with any study of this nature, it is important to tread cautiously, like a soybean plant navigating through the treacherous terrain of statistical inference. While we cannot conclusively pinpoint causation, the impact of GMO soybeans on the linguistic landscape of Minnesota is a budding field ripe for further exploration.

In sum, our research serves as a testament to the soy-stirring relationships that exist across seemingly unrelated domains. The soy-ber revelation of a strong positive relationship between GMO soybean cultivation and 'I can't even' Google searches opens the door to a myriad of soy-entific musings and reinforces the unpredictable nature of interdisciplinary research. And just like the resilience of soybeans in adverse conditions, this study exemplifies the resilience of scientific inquiry in uncovering the unexpected and, dare I say, 'soyprising' connections.

# CONCLUSION

In conclusion, our study uncovers a curious correlation between the cultivation of genetically modified organisms (GMO) in soybeans and the frequency of 'I can't even' Google searches in Minnesota – a discovery as surprising as realizing you're out of guac after ordering a burrito. The statistically robust relationship we've uncovered is as strong as the allure of a freshly brewed cup of soy-based coffee to a non-dairy enthusiast.

The soy-stirring implications of our findings extend beyond mere statistical intrigue, transcending into the realm of societal influence. It seems that the GMO soybeans have sown the seeds of linguistic exasperation in the Land of 10,000 Lakes, producing a novel kind of crop that flourishes not in fields, but in the digital expanse of internet searches. This revelation is as unexpected as finding a needle in a haystack, or rather, a disillusioned internet user amidst verdant soybean plantations.

As we wrap up this soy-entific saga, it is evident that no more research is needed in this area... unless, of course, we want to delve into the impact of organic kale on the usage of 'facepalm' emojis. But for now, we can confidently say that our study has soy-lidified the notion that agricultural biotechnology may have unanticipated effects on linguistic and emotional expressions in the modern world. It's a reminder that the whims of correlations can be as unpredictable as a rogue soybean in a field of non-GMO crops.

So, as we bid adieu to this soy-stained adventure, let's remember that the world of scientific inquiry is not just a maze of formulas and figures, but also a playground of soy-prises and unexpected connections. And with that, we say, "I can't even" comprehend the full implications of our own findings!