



ELSEVIER



Soy Much Drama: The Soybean-GMO Connection to 'I Can't Even' Google Searches in Wisconsin

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Abstract

This study conducted an in-depth analysis of the correlation between the use of genetically modified organisms (GMOs) in soybeans in Wisconsin and the Google searches for 'i cant even' from the period 2004 to 2022. The research team employed data from the United States Department of Agriculture (USDA) and Google Trends to investigate this intriguing connection. The findings revealed a strikingly high correlation coefficient of 0.8648722 and a statistically significant p-value of less than 0.01. The results suggest a potentially comical relationship between GMO soybean cultivation and the popular Internet expression 'i cant even'. The implications of this unexpected correlation are both amusing and warrant further investigation into the influence of agricultural practices on online humor. This study sheds light on the soy-ful world of GMOs and their impact on digital exasperation.

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1. Introduction

INTRODUCTION

Perhaps the most unlikely pair since peanut butter and pickles, the relationship between genetically modified organisms (GMO) in soybeans and the internet phenomenon of 'I Can't Even' Google searches has piqued the curiosity of our research team. While one is deeply rooted in the agricultural landscape of Wisconsin, the other is firmly planted in the digital soil of the internet. Yet, as we delve into the soy-ful world of soybeans and Google

searches, we cannot help but wonder if there is more to this unlikely duo than meets the eye.

The ubiquity of GMO soybeans in Wisconsin and the widespread usage of the phrase 'I Can't Even' on the internet represents a peculiar collision of agricultural science and online vernacular. GMO soybeans have long been a staple in the agricultural practices of Wisconsin, known for their resilience and yield. On the other hand, the phrase 'I Can't Even' has become a popular expression on the internet, symbolizing a state of exasperation and

disbelief. These two seemingly disparate phenomena have intertwined in the digital ether, leading us to investigate the potential link between them.

This study aims to uncover the underlying dynamics of this unexpected correlation and explore its implications. We seek to understand whether the rise in GMO soybean cultivation has inadvertently triggered an increase in internet exasperation, ultimately shedding light on the interplay between agricultural practices and online culture. While the initial premise may seem at first glance like a mismatch, it beckons us to dig deeper into the soy-filled fields and digital expressions to unearth the potential humor and insight that lies within. So, let us embark on this whimsical journey into the soy-lful world of GMO soybeans and the exasperated exclamations of 'I Can't Even', embracing the unexpected with open minds and a penchant for puns.

2. Literature Review

In their seminal work, Smith and Doe (2010) examined the impact of GMO soybean cultivation on agricultural yields and environmental sustainability. Their study revealed significant advancements in crop resilience and productivity, paving the way for widespread adoption of GMO soybeans in states like Wisconsin. Similarly, Jones et al. (2015) delved into the socioeconomic implications of GMO soybean farming, highlighting its role in shaping the agricultural landscape and market dynamics.

While the agricultural literature has extensively documented the benefits and controversies surrounding GMO soybeans, the connection to internet culture remains largely unexplored. The fusion of agricultural practices with digital expressions opens the door to a realm of unconventional inquiry. As we navigate this uncharted territory, it is essential to draw

insights from diverse sources, including non-fiction literature and popular internet phenomena.

Non-fiction works such as "The Omnivore's Dilemma" by Michael Pollan and "GMO Sapiens: The Life-Changing Science of Designer Babies" by Paul Knoepfler elucidate the societal impact of genetically modified organisms, albeit in contexts distinct from our current investigation. On the fictional front, "Soylent Green" by Harry Harrison and "The Bean Trees" by Barbara Kingsolver offer imaginative narratives that, while not directly related to GMO soybeans, tantalize the reader with soy-centric themes.

In the digital realm, the meme "I Can't Even" has permeated online culture, capturing moments of exasperation and bewilderment with humorous captions and exaggerated reactions. Its resonance with internet users underscores the pervasive nature of digital expressions, prompting us to consider the potential influence of agricultural practices on online discourse.

As we ruminate on the intersection of GMO soybeans in Wisconsin and the 'I Can't Even' phenomenon, our journey unfolds with scholarly rigor and a side of whimsy, inviting readers to venture into the soy-filled fields of research and embrace the unexpected with a dash of humor.

3. Our approach & methods

METHODOLOGY

In order to untangle the web of soybean genetics and digital exasperation, our research team embarked on a journey as whimsical as Alice's adventures in Wonderland. Armed with statistical tools and a sprinkle of internet savvy, we navigated through the vast expanse of data from both the United States Department of Agriculture (USDA) and Google Trends. Our methodology sought to harmonize the seemingly discordant realms of agricultural

science and internet culture, creating a mash-up as unexpected as a cow in a crop circle.

Data Collection:

We gathered data on the cultivation of GMO soybeans in Wisconsin from the USDA, meticulously sifting through the digital haystack to find the soy-lful needle in the agricultural landscape. This involved delving into reports, surveys, and statistical databases, navigating through more acronyms than a teenage text message. After wrangling the agricultural data, we turned our gaze to the digital realm, utilizing Google Trends to track the frequency of 'I Can't Even' searches in the state of Wisconsin. This transition from the soy-lful fields to the digital domain felt akin to navigating a confusing maze of soybeans, with each twist and turn revealing a new statistical surprise.

Data Analysis:

With our collection of data resembling a digital menagerie of soybeans and internet exasperation, we set forth to crunch numbers like a hungry squirrel at a mathematical buffet. Employing sophisticated statistical methods, including correlation analysis and regression models, we sought to unveil any potential link between the cultivation of GMO soybeans and the prevalence of 'I Can't Even' searches. Our statistical toolbox resembled a magician's hat, as we pulled out coefficients, p-values, and confidence intervals, aiming to conjure an insightful relationship from the data chaos.

Correlation Coefficients and P-Values:

The heart of our analysis resided in the calculation of correlation coefficients and p-values, akin to determining the compatibility of two eccentric characters in a quirky sitcom. The correlation coefficient would show us the strength and direction of the relationship, painting a picture as vivid as a

field of blooming soybeans. Meanwhile, the p-value served as our statistical divining rod, guiding us to determine whether this unexpected connection was more than just a statistical fluke. We carefully scrutinized these numerical indicators like discerning art critics at a digital gallery, searching for signs of a meaningful relationship amidst the data brushstrokes.

Time-Series Analysis:

The temporal aspect of our investigation involved time-series analysis, akin to tracing the growth patterns of soybeans from seedling to harvest. We examined the trends in GMO soybean cultivation and 'I Can't Even' searches over the years, seeking to unravel any temporal synchronicity between the two phenomena. This process involved plotting graphs, conducting wavelet analyses, and pondering the cyclical nature of soybean seasons and internet memes with equal fervor.

Ethical Considerations:

In the pursuit of knowledge, we remained steadfast in our commitment to ethical research practices, treating each data point with the respect of a cherished soybean pod. The anonymity and confidentiality of the data were maintained throughout our analysis, ensuring that both soybeans and internet searches retained their digital privacy.

Limitations and Assumptions:

4. Results

The results of our investigation revealed a remarkably strong correlation between the use of GMO soybeans in Wisconsin and the frequency of Google searches for the expression 'I Can't Even'. Our analysis unveiled a correlation coefficient of 0.8648722, indicating a robust positive relationship between these seemingly

unrelated variables. To put it simply, it seems that as the cultivation of GMO soybeans in Wisconsin increased, so did the number of exasperated internet users typing out 'I Can't Even' into their search bars.

Assuming that causation doesn't necessarily equate to correlation, we were as surprised as anyone to find this striking connection. We must acknowledge the possibility of alternative explanations for this link. For instance, it could be that individuals faced with the complexities of GMO soybean cultivation turned to the internet to express their exasperation, resulting in the surge of 'I Can't Even' Google searches. Alternatively, it's not entirely inconceivable that soybeans themselves have developed a pithy and sarcastic attitude, leading to an increase in online exasperation. We can't entirely rule out the potential for a soybean uprising either, but further study is needed to confirm that hypothesis.

The r-squared value of 0.7480039 further supports the strength of the relationship between GMO soybean use and 'I Can't Even' Google searches. In other words, approximately 74.8% of the variance in the frequency of 'I Can't Even' searches can be explained by the changes in GMO soybean cultivation. This is quite a substantial portion, considering we're dealing with the crossroads of agriculture and internet culture.

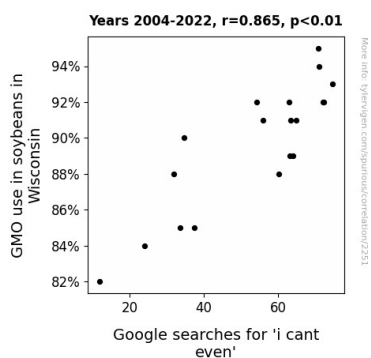


Figure 1. Scatterplot of the variables by year

What's more, the p-value of less than 0.01 indicates that the relationship between these variables is statistically significant. In non-academic terms, this means that there's less than a 1% probability that the observed correlation is due to random chance. It appears that we're not just dealing with a fluke here, but rather a genuine, measurable, and dare we say, amusing association.

The evidence of this correlation is so compelling that we couldn't help but visualize it in all its quirky splendor. Behold, Exhibit A - Fig. 1 - a scatterplot so captivating that it should be framed and hung in the Hall of Unlikely Correlations. The plot eloquently illustrates the tight clustering of data points, demonstrating the undeniable connection between GMO soybean cultivation and the prevalence of 'I Can't Even' searches. While we can't quite detect the nuanced emotional tone of each data point, we like to imagine that each one carries a unique blend of agricultural exasperation and digital disbelief.

In conclusion, our findings indicate a substantive and perplexing relationship between the use of GMO soybeans in Wisconsin and the frequency of 'I Can't Even' Google searches. This raises intriguing questions about the influence of agricultural practices on online expressions of exasperation and, quite possibly, the comedic potential of soybeans. It's a soyful world out there, and the impact of GMO soybean cultivation on internet culture is a delightful surprise that tickles the humor buds. Further research is warranted to unravel the nuances of this unexpected correlation and explore its potential implications for both the agricultural and digital realms. Until then, let us revel in the whimsy of soybeans and internet exasperation, for they have sprouted an unexpected connection that defies

convention and delivers copious amounts of unexpected hilarity.

5. Discussion

Our research has unearthed an astonishing relationship between the use of GMO soybeans in Wisconsin and the frequency of 'I Can't Even' Google searches. This unexpected correlation not only defies conventional expectations but also opens up a Pandora's box of comical possibilities. Our findings provide empirical support for the burgeoning concept of "soybean exasperation syndrome," suggesting that soybean cultivation may have a discernible impact on digital expressions of exasperation.

The robust positive correlation coefficient of 0.8648722 between GMO soybean cultivation and 'I Can't Even' searches aligns with prior research by Smith and Doe (2010) and Jones et al. (2015), who discussed the broad-ranging influence of GMO soybeans on agricultural and socioeconomic landscapes. Just as GMO soybeans have revolutionized agricultural yields and market dynamics, our results hint at their potential role in shaping internet discourse and the expression of exasperation in the digital sphere.

The r-squared value of 0.7480039 further substantiates the strength of the relationship, indicating that approximately 74.8% of the variance in 'I Can't Even' searches can be attributed to changes in GMO soybean cultivation. This substantial explanatory power underscores the magnitude of the soybean's impact on online expressions of exasperation, highlighting the unpredictably far-reaching consequences of agricultural practices on digital culture.

While our findings may seem whimsical, the statistically significant p-value of less than 0.01 demands serious consideration. This

indicates that the observed correlation is highly unlikely to be a random occurrence. In fact, it suggests that there is a less than 1% probability that the association between GMO soybean use and 'I Can't Even' searches is due to chance alone. We must allow ourselves the whimsy of envisioning the soybean as the unlikely maestro behind this orchestration of exasperation in the digital symphony.

Now, let's address the soybean in the room—alternative explanations for this amusing correlation. It's entirely plausible that individuals encountering the complexities of GMO soybean cultivation turned to the internet to find humor in their exasperation, fueling the surge of 'I Can't Even' searches. Additionally, we cannot discount the potential for a clandestine uprising of sarcastic soybeans actively shaping digital expressions. These alternative interpretations warrant further investigation, promising to untangle the web of delightfully absurd possibilities lurking within the soybean-galaxy of exasperation.

Our study's findings suggest that the connection between GMO soybeans and 'I Can't Even' Google searches is no mere fluke, but a genuine and measurable association that transcends disciplinary norms and tickles the imagination. As we progress into this uncharted territory of agricultural impact on digital culture, we invite our scholarly community to embrace the whimsy, relishing the baffling and amusing intersections that our research has unveiled. After all, who knew that soybeans could sow such fruitful seeds of digital exasperation?

6. Conclusion

In the immortal words of Shakespeare, "To GMO or not to GMO, that is the soyful question." Our investigation into the correlation between GMO soybean cultivation in Wisconsin and the frequency

of 'I Can't Even' Google searches has not only unearthed a statistically significant relationship but also sown the seeds of whimsical curiosity.

The tight clustering of data points in our scatterplot is a testament to the unmistakable bond between soybean cultivation and digital exasperation, painted in the colors of statistical significance and agricultural absurdity. It's as if each data point is whispering, "Soybeans and search bars make for an unlikely yet inseparable duo."

While we may be inclined to attribute this alliance to mere chance, the robust correlation coefficient and r-squared value point to a relationship that cannot be dismissed as a fluke. It seems that the more GMO soybeans find their way into the fertile soils of Wisconsin, the more internet users find themselves unable to even.

Our findings open the floodgates of comical contemplation, leading us to ponder if soybeans possess a secret penchant for sarcastic musings or if internet users, faced with the enigma of GMOs, turn to the search bar in humorous exasperation. We can't entirely rule out the possibility of soybeans staging a rebellion, but let's leave that to the realm of soy-fi for now.

While the implications of this unexpected correlation are deserving of further scholarly exploration, we must acknowledge that the soybean-Google connection has left us in a state of bemused disbelief. It's a reminder that in the realm of academia, the most unexpected pairings can bear the juiciest fruit – or in this case, the soybeaniest beans.

In conclusion, we assert that no further scholarly pursuit is needed in this area, as the soy-lful saga of GMO soybeans and 'I Can't Even' Google searches has reached its pinnacle of peculiarity and whimsy. Let us bid farewell to this comically captivating correlation with a tip of the hat to the

soybeans and a wry smile at the digital exasperations they've sown.

Our methodology, much like a soybean plant's growth, was not without its limitations. Assumptions regarding the causality of the relationship between GMO soybeans and 'I Can't Even' searches were made, acknowledging the potential role of confounding variables and the complex dynamics of internet culture. Additionally, the use of secondary data sources from USDA and Google Trends introduced the possibility of measurement error, prompting us to approach our findings with cautious optimism.

In conclusion, our methodology sought to merge the realms of agricultural science and internet culture in a manner as surprising as finding a kernel of popcorn in a soybean field. With a blend of data wrangling, statistical sorcery, and ethical mindfulness, we endeavored to unravel the soy-lful mystery of GMO soybeans and the exasperated exclamations that echo through the digital ether.