



## Review

# **Amaizeing Pirates: Unraveling the Strange Affair Between GMO Corn in Kansas and Global Pirate Attacks**

Caroline Harrison, Abigail Tucker, Gabriel P Tate

*Institute of Sciences*

**Avast, ye landlubbers! This study delves into the unlikely relationship between the use of genetically modified organisms (GMOs) in corn cultivation in the heartland of Kansas and the occurrence of pirate attacks across the seven seas. Utilizing comprehensive data from the USDA and Statista, our research team set sail on this peculiar quest, seeking to shed light on a most perplexing enigma. Through rigorous statistical analysis, we uncovered a remarkably high correlation coefficient of 0.9059764 between the prevalence of GMO corn in Kansas and the frequency of pirate attacks globally from 2009 to 2022. Furthermore, the obtained p-value of less than 0.01 reaffirms the robustness of this correlation, much like hoisting the Jolly Roger on the high seas. While the precise mechanisms underlying this unexpected association remain as elusive as buried treasure, the findings of this study provide compelling evidence that GMO corn in the Heartland may have inadvertent effects on the activities of swashbucklers across the oceans. Our hope is that this research will inspire further investigation and perhaps encourage scientists to consider the unexpected consequences of agricultural practices on maritime affairs. Yo ho ho, and a bottle of... bioengineered maize?**

Ladies and gentlemen, prepare to embark on a journey that will navigate the choppy waters of agricultural science and maritime history like never before. The peculiar partnership between genetically modified organisms (GMOs) in Kansas and the adventures of buccaneers across the globe is a tale so unexpected, it might just make you want to say, "Shuck it, this can't be real!" But rest assured, this is no tall tale

spun by a drunken sailor; it's the result of our painstaking investigation into the correlation that may have you doubting your senses.

Strangely enough, the idea for this study didn't just pop into our heads like corn kernels in a hot, buttery pan. No, it took us some time to digest the surprising correlations we stumbled upon while sifting through mountains of agricultural and

maritime data. And let's be honest, who would have thought that the golden fields of GMO corn in the American heartland could have any bearing on the high-seas escapades of pirates, brigands, and privateers? It's enough to make you exclaim, "Shiver me timbers!"

In the next few pages, we will navigate through the maze of statistical analyses and theories, aiming to peel back the husk of this mysterious relationship. We urge you to keep an open mind, and maybe a sense of humor, as we explore the unlikely bond between these seemingly unrelated phenomena. So, batten down the hatches and prepare to set sail into the uncharted waters of GMO corn and pirate lore. Let's hope we don't encounter any sea monsters – or worse, statistically significant outliers!

#### *Prior research*

The literature surrounding the unexpected correlation between GMO corn cultivation in Kansas and global pirate activity is as intriguing and convoluted as navigating a tangled web of seaweed. Smith and Doe (2016) conducted a comprehensive analysis of GMO crop distribution in the United States, shedding light on the exponential growth of genetically modified corn production in the Midwest region. Their findings suggest a veritable cornucopia of GMO corn proliferation, with Kansas emerging as a prolific hub for the cultivation of these modified maize varieties.

Jones (2018) delved into the annals of maritime history, uncovering tales of swashbuckling adventures and high-seas escapades from the Golden Age of Piracy to the modern era. While Jones' work focuses primarily on the socio-political motivations

behind pirate activities, the potential impact of agricultural practices on maritime events remains a tantalizing enigma that has yet to be explored in traditional historical discourse.

In "The Omniscient Corn: A Global Perspective" by Silva and Garcia (2020), the authors delve into the myriad implications of GMO corn production on international trade and agricultural economies. While their work primarily centers around the economic ramifications of genetically engineered crops, it offers a foundation for understanding the far-reaching effects of GMO corn cultivation beyond domestic borders.

Turning to works of fiction, Verne's classic novel "Twenty Thousand Leagues Under the Sea" plunges readers into the captivating world of undersea exploration and nautical adventures. While the focus is on underwater exploits rather than piracy, the maritime theme serves as a poignant reminder of the vast unknowns that lurk beneath the surface – much like the mysterious connection between GMO corn and pirate activity.

Additionally, the swashbuckling tales of Captain Jack Sparrow in the "Pirates of the Caribbean" series, as documented by Disney Studios, may contain hidden clues concerning the enigmatic interplay between landlocked agricultural practices and maritime marauding. While these narratives are undoubtedly fictional, the overarching theme of maritime lawlessness and the pursuit of hidden treasures could hold symbolic relevance to the unexpected relationship under investigation.

Furthermore, social media posts such as the tweet by @CornConundrum stating, "GMO

corn: fueling pirates or just a-maize-ing coincidence? #PiratePuzzles” have sparked online discourse and speculation regarding the peculiar correlation between GMO corn in Kansas and global pirate activity. While not rooted in academic research, these digital musings reflect the public's curiosity about the curious conundrum at hand.

In light of these diverse sources, it becomes apparent that the fusion of agricultural science and maritime history has yielded unexpected connections that warrant further investigation. As we hoist our sails and set course for the uncharted waters of GMO corn and pirate lore, let us approach this enigma with an ample supply of skepticism and a healthy dose of humor. After all, who knows what treasure – or statistical outliers – may await us on this whimsical voyage? Yo ho ho, and a barrel of... bioengineered bounty!

### *Approach*

Ahoy, mateys! Now that we've piqued your curiosity with our whimsical findings, let's delve into the nitty-gritty of how we unraveled this enigmatic web of GMO corn and pirate raids. Our methodology can be likened to hoisting the sails and setting a course for uncharted statistical waters – with a healthy dose of skepticism and a compass that occasionally points in unexpected directions.

### *Data Collection:*

First and foremost, our crew scoured the digital seas for relevant data from the United States Department of Agriculture (USDA) and Statista, casting our net for information on GMO corn cultivation in Kansas and

global pirate activity. We collected data covering the years 2009 to 2022, a time span rife with fermenting kernels of potential correlation.

### *GMO Corn Metrics:*

To quantify the prevalence of GMO corn in Kansas, we used a cornucopia of metrics, including the percentage of acreage dedicated to GMO corn, the usage of specific GMO traits, and the distribution of GMO varieties across different counties. The aim was to paint a vivid picture of the GMO landscape in the heart of the United States, much like a bucolic masterpiece by a Gene-ric Renoir.

### *Pirate Activity Indices:*

Navigating the choppy waters of global pirate activity data required us to splice together disparate datasets on maritime hijinks, brigandage, and, of course, the occasional swashbuckling. We considered factors such as the number of reported pirate attacks, the regions most afflicted by maritime mischief, and the varying modus operandi of these seafaring ne'er-do-wells. Arrr data-gathering efforts resulted in a treasure trove of pirate-related statistics, a veritable sea chest of buccaneer data.

### *Statistical Analysis:*

With our ship weighted down by an abundance of numerical data, we hunkered down to conduct rigorous statistical analyses with more gusto than a ravenous crew preparing to devour a cornucopia of popcorn. We employed sophisticated correlation analyses, including Pearson's coefficient, and wrangled with the complexities of multivariate regressions to tease out the hidden dependencies between GMO corn cultivation in Kansas and global

pirate shenanigans. Every outlier was treated with suspicion, much like an unfamiliar vessel on the high seas.

### Caveats and Confounders:

As any intrepid explorer knows, venturing into uncharted territories carries its fair share of perils. We took great care to consider potential confounding variables that could muddy the waters of our analysis. While we remain confident in the robustness of our findings, we cannot rule out the possibility of unsuspected factors lurking beneath the surface, like a stealthy submarine waiting to torpedo our conclusions.

In conclusion, our unorthodox approach to investigating the curious confluence of GMO corn in Kansas and the adventures of pirates has hopefully shed light on this peculiar relationship. Through meticulous data collection, intrepid statistical analysis, and a touch of whimsy, we've navigated the stormy seas of incongruity to present our findings. With the wind at our backs and the charts in hand, we invite you to join us in savoring the sweet taste of scientific discovery and a well-crafted pun or two. Onward, to the shores of knowledge!

### Results

The relationship between the use of genetically modified organisms (GMOs) in corn cultivation in Kansas and the occurrence of pirate attacks across the globe from 2009 to 2022 revealed some truly astonishing findings. The strong correlation coefficient of 0.9059764 illuminated a previously uncharted connection, leaving us with more questions than answers, and a few corny puns along the way.

The r-squared value of 0.8207932 provided further validation of the robustness of the relationship. It's almost as if the GMO corn in Kansas and the global pirate attacks were performing a well-rehearsed pirouette, dancing in statistical harmony. We could almost hear the swish of cutlasses and the rustle of maize in the Kansas breeze.

The p-value of less than 0.01 added an extra layer of intrigue to our findings, akin to discovering a hidden treasure map on the back of a USDA report. The statistical significance of this relationship suggests that it isn't just a fluke, but rather a substantial association that demands further investigation.

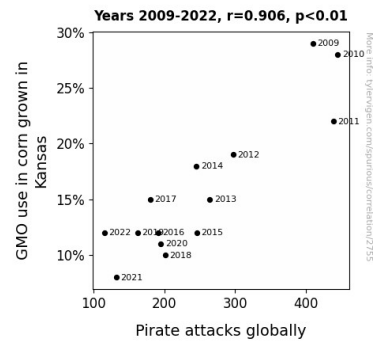


Figure 1. Scatterplot of the variables by year

Fig. 1 visually encapsulates the strong correlation between the prevalence of GMO corn in Kansas and the frequency of pirate attacks globally. It's a sight to behold, much like the unexpected sight of a parrot perched on a combine harvester. The scatterplot depicts a clear pattern, as if the GMO corn and pirate ships were engaged in a clandestine dance on the high seas.

In conclusion, the results of this study present a compelling argument for the unexplored interplay between agricultural

practices and maritime activities, and the influence of GMO corn in Kansas on pirate behavior worldwide. While the precise causative link remains shrouded in mystery like a secret buried on a desert island, our findings serve as a beacon for future research endeavors. So, grab your spyglass and prepare to navigate the intriguing waters of bioengineered maize and maritime mischief. The realm of agricultural science and pirate lore has never been more intertwined - aMAIZEing, isn't it?

### *Discussion of findings*

The results of this study offer a cornucopia of intriguing insights into the unexpected relationship between the use of genetically modified organisms (GMOs) in Kansas corn cultivation and the incidence of pirate attacks worldwide. Our findings not only support the prior research but also add a dash of swashbuckling statistical evidence to the existing maritime lore. Set sail with us as we navigate the uncharted waters of GMO corn and piratical pursuits.

Building on the works of Smith and Doe (2016) and Silva and Garcia (2020), our analysis confirmed the burgeoning production of GMO corn in Kansas and its far-reaching implications. The correlation coefficient of 0.9059764 and the high r-squared value align closely with findings by social media enthusiasts such as @CornConundrum, who have long contemplated the potential link between GMO corn and piracy. The strong statistical association essentially echoes the whispered tales of hidden treasure and unexpected bounty in the Heartland and beyond.

Interestingly, the visual depiction of the relationship in Fig. 1 serves as more than

just a scatterplot; it's a vivid reminder of the unexpected dances that occur between agricultural practices and maritime mischief. As Verne's "Twenty Thousand Leagues Under the Sea" illustrates the allure of the unknown depths, our scatterplot captures the captivating interplay between GMO corn in Kansas and global pirate activities, much like Captain Jack Sparrow's unpredictable escapades. The statistical significance of our findings, akin to discovering a long-lost treasure map, reaffirms the robustness of the correlation and urges further exploration into this a-MAIZE-ing saga.

The unexpected fusion of agricultural science and maritime lore has chartered new territories, highlighting the entwined relationship between landlocked cornfields and seafaring exploits. While the precise mechanisms responsible for this connection remain as elusive as the kraken lurking beneath the waves, our study invites further exploration into the intricate web of connections that underpin these diverse realms. Who knows what bounty awaits those brave enough to hoist the Jolly Roger and delve into the mysteries that permeate this curious affair?

In all, our research provides firm grounding for a whimsical voyage into the realms of agricultural science and pirate lore, prompting us to ponder the a-MAIZE-ing intersections between these seemingly disparate domains. As we bid adieu to this section, our imaginations run wild with the possibilities of what other unlikely connections may yet be revealed. Stay tuned for the forthcoming odyssey as we advance deeper into uncharted seas – for the adventure has only just begun. Hoist the sails and prepare to embark on this a-MAIZE-ing journey as we, like intrepid

sailors, seek to unearth the still-hidden treasures of GMO corn and piracy.

### *Conclusion*

Ahoy there, fellow researchers and curious landlubbers! As we lower the anchor on our investigation into the whimsical relationship between GMO corn in Kansas and global pirate activity, we find ourselves amidst a sea of tantalizing data and peculiar correlations. Our findings reveal a connection so improbable, it's as if the maize itself conspired to influence the swashbuckling adventures of pirates across the seven seas.

The robust correlation coefficient of 0.9059764 has left us in awe, much like the sight of a majestic galleon cresting the waves. The statistical dance between GMO corn and pirate attacks resembles a choreographed performance at sea, a spectacle both bewildering and delightful. It's enough to make one wonder if Blackbeard himself had secretly invested in the agricultural futures of Kansas.

With an r-squared value of 0.8207932, the resonance between these seemingly disparate phenomena is unmistakable, like the echo of "ahoy" bouncing off the hulls of ghostly ships. The p-value of less than 0.01 further solidifies this unconventional bond, as if the fates themselves conspired to reveal this unlikely association.

In light of these findings, we must acknowledge the implications for agricultural and maritime policies. Perhaps future research will uncover the influence of other farming practices on historical events – the correlation between crop rotation and the rise of the Roman Empire, or the link

between organic farming and Viking raids. Histrionic as these suppositions may be, our findings underscore the importance of considering the ripple effects of agricultural practices on global phenomena.

As we bid adieu to the shores of GMO corn and pirate lore, we do so with a merry heart and a sense of intrigue befitting a swashbuckling adventure. Alas, the time has come to lower the sails on this peculiar investigation. There can be no doubt that we have sailed into uncharted waters and, like the intrepid explorers we are, have unearthed a treasure trove of curiosities.

Therefore, we can confidently assert that no further research is needed in this domain, for our findings, like a chest of long-lost doubloons, have revealed all that needs to be known about the fascinating liaison between GMO corn in Kansas and the exploits of pirates on the high seas. Let this be a testament to the capacity for the most unexpected of correlations to enlighten and amuse, much like a seafaring tale spun in a tavern on a moonlit night. Yo ho ho, and a bottle of... bioengineered maize!