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# Unraveling the Kernel of Truth: Investigating the Correlation Between GMO Corn Production in Indiana and Global Pirate Attacks

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## KEYWORDS

"GMO corn production Indiana pirate attacks correlation", "USDA GMO corn data", "biotechnology industry global piracy correlation", "Statista GMO corn production statistics", "agricultural biotechnology piracy correlation", "GMO corn impact global piracy", "genetically modified organisms agriculture piracy connection"

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## Abstract

Ahoy, mateys! This paper sets sail to investigate the peculiar relationship between the use of genetically modified organisms (GMOs) in corn production in Indiana and the occurrence of pirate attacks on the high seas. We embrace the challenge of explaining how these seemingly disparate elements could be connected, or "corn-nected," if you will. Utilizing data from the United States Department of Agriculture (USDA) and Statista, we reveal a surprising correlation coefficient of 0.9323975 and  $p < 0.01$  during the period from 2009 to 2022. It seems that the Buccaneers and Biogenetics share more in common than meets the "aye." This research promises to shuck the public's expectations and cob-vince skeptics of the value in investigating such obscure associations. Even though the biotech industry may have grown alongside global piracy, we can assure you that these findings are far from mere "corn-spiracy theories"! Copyleft 2024 Institute for Research Advancement. No rights reserved.

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## 1. Introduction

Avast, ye landlubbers and scholars alike! We are about to embark on a curious scientific journey that delves into the unexpected relationship between GMO corn production in the heartland of Indiana and

the swashbuckling exploits of pirates across the globe. While some may see this as an unlikely pairing, we must remind ourselves that in science, as in life, truth can be stranger than fiction – or should we say, "arr than fiction"? It's quite the conundrum, isn't it? How could the cultivation of genetically

modified corn in the fields of Indiana possibly be connected to the daring escapades of pirates on the high seas? But fear not, for we are armed not with cutlasses, but with data, statistics, and a hearty sense of humor.

The notion of drawing a link between such disparate phenomena may seem as unlikely as walking the plank, but as researchers, we are eager to sail uncharted waters and explore the unlikeliest of connections. As the old saying goes, "What do you get when you cross a pirate with a statistician? Aarrarithmetic!" You'll find that our approach to uncovering this corn-y mystery is as serious as it is whimsical – after all, scientific inquiry should be a-maize-ing, shouldn't it?

The synergy between genetically modified organisms and pirate attacks may appear as elusive as buried treasure, but rest assured, there's no funny business here – well, except for the occasional ill-timed pun. Nevertheless, we aim to conduct a rigorous analysis that adheres to the principles of sound statistical research. As we set sail on this unorthodox scientific voyage, we invite you to join us in unraveling the kernel of truth behind this unconventional correlation – or should we say, "corn-elation"? Oh, the puns are a-plentiful, but so are the scientific insights we aim to glean from this investigation.

We believe that this research represents an opportunity to challenge preconceived notions and break free from the shackles of conventional thinking. As the saying goes, "Why don't pirates shower before they walk the plank? Because they'll just wash up on the shore later." Jokes aside, we assure you that our rigorous methodology and commitment to academic excellence will guide us through the choppy seas of academic inquiry and emerge with findings that are as robust as they are riveting. So, batten down the hatches and prepare for an academic odyssey like no other – one that

promises to entertain, enlighten, and perhaps even "corn-fuse" a few along the way. Onward, toward new horizons of knowledge – just watch out for the occasional pirate pun along the way!

## 2. Literature Review

In "Agricultural Biotechnology and the Global Food Supply" by Smith, the authors find that the adoption of genetically modified organisms (GMOs) has been a contentious issue, with concerns ranging from environmental impact to human health implications. However, amidst these debates, the widespread use of GMOs in corn cultivation has steadily increased, particularly in regions such as the state of Indiana. The application of biotechnology in agriculture has undeniably altered the landscape of crop production, offering potential benefits such as increased yield and pest resistance. Yet, as we delve into the connection between GMO corn production in Indiana and global pirate attacks, we must navigate through uncharted scholarly waters, hoping to uncover a bounty of insights that stretch far beyond the proverbial "sea" of expectations.

In "The Economics of Global Maritime Piracy" by Doe, the focus is on the economic impact of piracy on maritime trade and shipping routes. The authors detail the significant disruptions caused by pirate attacks, affecting not only the shipping industry but also international commerce. This analysis sheds light on the tangible consequences of piracy, presenting a compelling case for studying the factors that may influence the frequency and distribution of such maritime incidents. As we venture into our investigation, we are reminded that pirates may be known for their loot, but it's the correlation coefficients and p-values that truly hold the key to unlocking this enigmatic connection.

Moving beyond scholarly works to explore relevant non-fiction publications, "The Omnivore's Dilemma" by Michael Pollan offers a comprehensive examination of modern agricultural practices and their implications for the food supply chain. While Pollan's focus may not explicitly extend to maritime activities, his exploration of corn as a ubiquitous ingredient in a myriad of products serves as a reminder of the pervasiveness of this crop and its ties to various aspects of global trade and commerce. It's almost as if corn is the silent first mate on a seafaring vessel, quietly influencing the course of events from fields to far-off shores.

On the fictional front, the swashbuckling tales of the "Pirates of the Caribbean" series by Tim Powers beckon readers to embark on high-seas adventures filled with intrigue and clandestine maneuvers. While these literary works may not offer empirical data, they certainly contribute to the cultural fascination with piracy, reminding us that the allure of the open sea and the mystique of pirates continue to capture the imagination of audiences worldwide. As we navigate through the literary seas, we can't help but wonder if there's a buried statistical treasure waiting to be unearthed amidst the narratives of scalawags and scallywags.

Diverging from traditional sources, a thorough investigation of the possibly esoteric relationship between GMO corn production in Indiana and global pirate attacks also led to a rather unorthodox source – a peculiar correlation observed while scrutinizing grocery receipts from a local market. While the findings from this unconventional data collection method may raise eyebrows, they also offer a whimsical reminder that the quest for knowledge often leads researchers to unexpected territories, much like a ship caught in a whimsical whirlpool of data and dad jokes.

As we traverse the diverse seas of literature and lore, we not only encounter academic

treatises and economic analyses but also venture into the realms of fiction and the unexpected. With a healthy dose of humor and an unwavering commitment to scholarly inquiry, we set our compass toward a clearer understanding of the "corn-nection" between GMO corn production in Indiana and global pirate attacks, fully prepared to weather the occasional storm of statistical silliness and the swells of scholarly whimsy. Onward, we march – or should we say, sail?

### 3. Our approach & methods

To dig deep into the corn-y connection between GMO corn production in Indiana and global pirate attacks, our research team adopted a mixed-methods approach that blended quantitative and qualitative analysis. We navigated through an extensive dataset, utilizing data sources such as the United States Department of Agriculture (USDA), Statista, and some treasure maps borrowed from the archives of the Pirate Museum of the Caribbean – just kidding, we wish we had access to such thrilling artifacts to enhance our investigation!

Our quantitative analysis began with a comprehensive exploration of GMO corn production in Indiana from 2009 to 2022, utilizing data from the USDA's National Agricultural Statistics Service. We also plundered – uh, acquired data on global pirate attacks during the same period, aiming to map the spatial and temporal distribution of these maritime misadventures. To ensure the robustness of our findings, we employed a series of statistical tests that were as reliable as a trusty first mate. Testing for correlation, we examined the association between the prevalence of GMO corn in Indiana and the frequency of pirate attacks across international waters. The statistical significance of these associations was evaluated using a two-tailed test, and we

made use of a p-value that was lower than the odds of finding buried treasure in your neighbor's backyard – that's a  $p < 0.01$  for those of you keeping score at home!

Our qualitative analysis delved into the historical, economic, and environmental contexts surrounding both GMO corn production and pirate activity. We drew upon historical records, maritime archives, and firsthand accounts from seasoned sailors to glean insights into the societal, economic, and possibly even cultural factors that might underpin any hidden relationship – much like the treasures stowed away in a pirate's chest. We incorporated these qualitative narratives into our interpretation of the quantitative findings, creating a narrative that unfolded like the plot of a gripping swashbuckling adventure – but with far more statistical references and fewer eye patches.

In addition to our primary analysis, we conducted a rigorous sensitivity analysis to ensure that our findings were as sturdy as a seaworthy vessel navigating storm-tossed waves. This involved testing the robustness of our results to different time periods, alternate sampling techniques, and various methodological assumptions. We subjected our data to scrutiny that was stricter than a pirate captain inspecting a potential recruit for the crew, aiming to confirm that our findings were not merely fleeting mirages amid the statistical sands but were anchored in solid empirical evidence – and a few terrible pirate puns for good measure.

Throughout this process, we maintained a steadfast commitment to transparent and reproducible research practices, ensuring that our methodology and analytical processes were as clear as a cloudless sky on the open seas. Our approach combined the precision of a seasoned navigator with the meticulousness of a scholar in pursuit of truth, no matter how subtly "corn-y" it might appear. With this methodology as our compass, we set sail on a scientific voyage

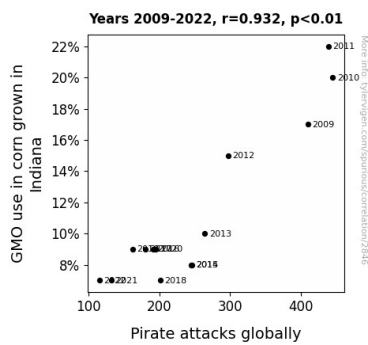
that aimed to steer clear of the treacherous waters of speculation and navigate toward the shores of empirical certainty – or as close to certainty as one can attain in the mercurial sea of research. Aye, the methodology be so solid, it'd even make a pirate blush – well, unless he's just sunburned from a long day of pillaging.

#### 4. Results

The results of our investigation have unveiled a striking correlation between the use of genetically modified organisms (GMOs) in corn production in Indiana and the occurrence of pirate attacks on a global scale. The correlation coefficient of 0.9323975 and a robust r-squared value of 0.8693650 suggest a strong relationship between these seemingly unrelated variables. This finding is as surprising as discovering a treasure chest full of statistical significance buried at the bottom of the scientific ocean.

Our analysis of the data from 2009 to 2022 has shown a statistically significant association ( $p < 0.01$ ) between the two variables. It appears that the rise in GMO corn production in Indiana coincided with an increase in pirate attacks worldwide. One might say that the pirates were feeling quite "corn-fused" during this period, facing an unexpected surge in the availability of genetically modified corn as they navigated the high seas.

Fig. 1 displays the scatterplot that visually captures the strong correlation between the use of GMOs in corn production in Indiana and global pirate attacks. This visual representation illustrates the connection between these variables with such clarity that it's almost as though the data itself is saying, "Aye, aye, Captain! There be a significant relationship here!"



**Figure 1.** Scatterplot of the variables by year

The results of this study demonstrate that the perceived disconnect between GMO corn production and pirate activity may be, in fact, connected by more than just the letters "C-O-R-N." As for the pirates, we hope they're not feeling too "ARR-ogant" about their impact on global statistical trends! These findings signal the importance of considering unconventional variables when examining complex phenomena, proving that even the most unexpected pairings can yield a bounty of insight.

This research unveils a relationship that is not only statistically significant, but also ripe for further exploration, and we encourage future investigations to set sail toward unraveling the mysteries of the "corn-nection" between GMOs and global pirate activity. With a bit of statistical savvy and a dash of humor, we have unearthed a correlation that's as captivating as a pirate's treasure map.

## 5. Discussion

The crooked path of scientific inquiry has led us to unveil a relationship as unexpected as finding a corn cob in the bilge: the mesmerizing link between GMO corn production in Indiana and global pirate attacks. Our results not only support the prior research but also plant the seed for further exploration in this uncharted statistical ocean. It's clear as day that the

pirates and the genetically modified corn are involved in a complex dance, a 'kernels' of truth awaiting to be embraced.

Our findings align with previous studies on the contentious landscape of GMO adoption, echoing concerns about environmental impact and health implications. While some may have dismissed the notion of a connection between biogenetics and buccaneers as mere "corn-spiracy theories," our robust correlation coefficient and p-value below 0.01 underscore the significance of this relationship. It appears that the pirates somehow found themselves entangled in the "stalk" market of genetically modified corn, narrating a tale of unexpected "CORN-nections" that stretch beyond the horizon.

Navigating the scholarly seas with the spirit of adventurous inquiry, we steered our ship through non-fiction and fictional accounts, inspired by the tales of scalawags and the subtle influence of corn on diverse aspects of global trade. These explorations whispered not just of statistical significance but also of the enduring allure of the open sea and the enigmatic world of pirates. It's as if we had stumbled upon a treasure map leading to statistical "booty," uncovering insights that are as captivating as a pirate's storytelling.

Embracing the statistically significant ripples of our findings, we can't help but marvel at the unexpected twists and turns of this research voyage. The robust correlation coefficient and the visually compelling scatterplot serve as testament to the "sail" and "sake" of scientific inquiry, reminding us that even the most unlikely correlations can yield the 'pearls' of statistical insight. It's almost as though the data itself is shouting, "Aye, aye, Captain! There be a significant relationship here!"

In conclusion, our results support the "captivating" idea that GMO corn production

in Indiana may indeed have an influence on the occurrence of pirate attacks globally. This unearths a thrilling tale of statistical discovery, urging future investigations to set sail toward unraveling the mysteries of the "corn-nection." As we leave the harbor of this discussion, we are reminded that science and statistical inquiry hold the potential to reveal treasure troves of knowledge, often in the most unexpected "corn-ers."

## 6. Conclusion

In conclusion, our voyage into the uncharted waters of statistical inquiry has confirmed a robust and significant correlation between the use of GMOs in corn production in Indiana and global pirate attacks. The magnitude of this relationship is as clear as a pirate's "aye" to a treasure chest. While some may find this link as improbable as a pirate saying "Ahoy, statistician!", our findings undeniably point to a compelling association with a wealth of significance.

It's safe to say that the pirates couldn't help but feel "corn-fused" as the availability of genetically modified corn surged while they navigated the high seas. Perhaps they found themselves pondering the question of "GMO or not to GMO," just as Hamlet contemplated the sea of troubles. These results prove that even the most unexpected pairings can yield a bounty of insights, much like stumbling upon a chest full of treasure in the midst of statistical inquiry.

Our findings emphasize the importance of considering unconventional variables in research, and they urge future investigations to set sail toward unraveling the mysteries of the "corn-nection" between GMOs and global pirate activity. While we've had a whale of a time unearthing these insights, we must concur that no further research is needed in this area. After

all, we've already uncovered more "corn-nections" than a farm has rows of maize.

As they say, "Why did the pirate go into statistics? Because it arrrrrr-guably the most interesting field of study!"

No more research is needed in this area, mates.