Agroterrorism and the Law – How Safe is the U.S. Food Supply?

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Introduction

A recent event has again raised the question of how safe the U.S. crop production and food supply systems are from a biological terrorism attack. The FBI is now issuing a warning that the U.S. food supply may be the target of attacks from China since the discovery of a fungus found at the Detroit airport last year belonging to a Chinese government funded researcher at the University of Michigan. She has been arrested along with her boyfriend. The allegations are that the couple, over a two-year period, smuggled Fusarium graminearum into the U.S. for further research in the university labs. They have been charged with conspiracy, smuggling goods into the U.S., false statements and visa fraud.

Authorities say that the toxins in the fungus causes crop-killing "head blight" in wheat, barley, maize and rice as well as vomiting, liver damage and reproductive defects in both humans and livestock. The FBI director has noted that the matter is a sobering reminder that the Chinese Communist Party (CCP) continues to deploy operatives and researchers to infiltrate our institutions and target our food supply and act in ways that could cripple our economy and endanger American lives. A 25-page complaint notes the researcher's loyalty to the CCP and that she had smuggled other pathogens on at least one prior occasion.

Note: China's National Intelligence Law of 2017 requires all citizens and organizations to support and cooperate with state intelligence efforts. Article 7 of the law states:

"Any organization or citizen shall support, assist, and cooperate with state intelligence work in accordance with the law."

This provision obligates individuals and entities to assist intelligence agencies when legally requested. Additionally, Article 14 grants intelligence agencies the authority to demand such support, assistance, and cooperation from concerned organizations or citizens. While the law does not explicitly mandate that every citizen must actively engage in espionage, it establishes a legal obligation to support intelligence activities.

So, how safe are the U.S. crop production and food supply systems from attack? And the threat to the food supply and ag commodity production systems is just a piece of a greater threat. Additional past events indicate the seriousness of the problem:

• In 2018, a Chinese student pleaded guilty to charges of illegally entering and photographing defense infrastructure at a U.S. Naval air station in Key West, Florida



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- In 2021, a Harvard University professor and former chair of Harvard University's Department of Chemistry and Chemical Biology, was convicted of making false statements to authorities and failing to report income from his work with China's Wuhan Institute of Technology. Following his conviction, Lieber retired from Harvard University and has since been appointed to a full-time faculty position at Tsinghua Shenzhen International Graduate School in China, where he holds the university's highest faculty rank.
- In 2022, a Ji Chaoqun, a former graduate student from Chicago, was convicted for acting as an unregistered agent of the People's Republic of China. He was sentenced to eight years in federal prison in January 2023. Ji was accused of providing biographical information on U.S. scientists and engineers, including those working for defense contractors, to Chinese intelligence officers. He also enlisted in the U.S. Army Reserves in 2016, falsely stating he had no contact with foreign intelligence agencies.
- In 2024 five Chinese nationals who were charged with spying by photographing a training exercise at a National Guard training facility in Michigan while students at the University of Michigan
- In 2024 a Chinese national and graduate student at the University of Minnesota was convicted under the U.S. Espionage Act of illegally photographing naval bases and BAE Systems facilities via the use of a drone. He was sentenced and deported in early 2025.

While the legal and regulatory systems establish multiple layers of biosecurity, concerns remain about insider threats, including the potential for foreign actors to introduce harmful pathogens or plant viruses.

Imported Food and Seeds

Food imports into the United States are regulated under a complex framework of laws designed to ensure public health, food safety, and fair-trade practices. At the core of this system are two primary federal agencies: the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA).

The FDA oversees approximately 80 percent of the U.S. food supply, including imported processed foods, seafood, dairy (excluding certain meat products), fruits, and vegetables. The primary law governing its authority is the Federal Food, Drug, and Cosmetic Act (FDCA). The FDA enforces regulations to prevent adulterated or misbranded food from entering the U.S. market. Notably, the Food Safety Modernization Act (FSMA) of 2011 expanded FDA's authority by requiring foreign suppliers to follow the same safety standards as domestic producers. Importers must now have Foreign Supplier Verification Programs (FSVP) to ensure compliance.

The USDA, through its Food Safety and Inspection Service (FSIS), regulates the import of meat, poultry, and egg products. Foreign countries exporting these products must have an inspection system equivalent to that of the U.S., and individual foreign establishments must be certified by their governments and approved by FSIS.

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Customs and Border Protection (CBP) works alongside FDA and USDA, ensuring that imported food meets all entry requirements, including accurate labeling and country-of-origin marking. Importers must also file prior notice with the FDA before food shipments arrive in the U.S., allowing for inspections and risk assessment.

In addition to federal laws, imported foods must meet U.S. standards for pesticide residues, biotechnology (GMO) labeling where applicable, and packaging. Violations can result in detention, refusal of entry, or legal action.

Overall, U.S. food import laws emphasize safety, traceability, and equivalency in standards, reflecting the nation's commitment to protecting consumers and maintaining global food trade integrity.

Imported Seeds. In 2020, all 50 U.S. states received seeds from China. The seeds were unsolicited, but was an attempt by the CCP to plant invasive species in the U.S. In early 2025, the same attempt was made by Temu, a Chinese retailer.

Domestic Production

Food facilities. For food produced in the U.S., the FSMA mandates that food facilities implement comprehensive, risk-based preventive controls to identify and mitigate potential hazards before they can cause contamination. It also provides the FDA with enhanced authority, including the power to issue mandatory recalls and to hold imported foods to the same safety standards as domestically produced goods. This regulatory system forms the legal backbone of food safety in the United States, aiming to protect public health from farm to table.

The FSMA shifted the focus from responding to contamination to proactively preventing it. It requires food facilities to develop and implement written food safety plans that include a hazard analysis and risk-based preventive controls. This includes planning for potential intentional adulteration. The FSIS also encourages meat, poultry, and egg producers to voluntarily adopt food defense plans to mitigate vulnerabilities to attack. Together, these measures create a robust legal framework designed to deter and mitigate the impact of a bioterrorism attack on the U.S. food supply.

Note: Record-keeping requirements are also crucial, obligating food facilities to maintain records that can trace the immediate previous source and immediate subsequent recipient of their products. This enhances the ability to quickly identify the scope of a contamination event.

Bioterrorism. U.S. law protects the nation's food supply from bioterrorism through a multi-layered approach primarily established by two key pieces of legislation: the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act) and the Food Safety Modernization Act (FSMA) of 2011. These laws grant federal agencies, principally the Food and Drug Administration (FDA) and the U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS), significant authority to prevent and respond to threats.

A cornerstone of this protection is the requirement for any facility that manufactures, processes, packs, or holds food for consumption in the U.S. to register with the FDA. This creates a comprehensive inventory of the nation's food infrastructure, enabling rapid tracing during an emergency.



Furthermore, the Bioterrorism Act mandates that importers provide the FDA with prior notice of all food shipments entering the country, allowing for inspection and refusal of entry for suspicious products.

The U.S. food supply is moderately well protected against bioterrorism, but vulnerabilities remain. Federal agencies like the USDA, FDA, DHS, and FBI coordinate efforts to prevent, detect, and respond to bioterror threats. Programs such as the BioSurveillance Initiative and the Food Emergency Response Network (FERN) monitor for biological agents in food and agricultural systems. The National Plant Diagnostic Network (NPDN) and the Animal and Plant Health Inspection Service (APHIS) also play key roles in identifying and responding to outbreaks.

The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 strengthened food safety and agricultural defense by improving laboratory capacity, food tracking, and interagency communication. The FDA's Food Safety Modernization Act (FSMA) further emphasizes prevention through stricter controls and mandatory response plans for food producers.

Challenges Remain

U.S. crop production is vast and decentralized which makes comprehensive monitoring difficult. Many pathogens and plant viruses could be introduced covertly, and detection often relies on farmers noticing symptoms after significant damage has occurred. Some labs and surveillance systems also suffer from staffing issues or limited coordination. Conversely, the livestock sector is highly concentrated with large amounts of animals concentrated in relatively small areas. This makes the livestock sector particularly vulnerable to a bioterrorism attack that can do substantial damage with a single event. Supply chain production systems in both crop and livestock production also heighten the risk and damage that a bioterrorism attack could render.

In addition, emerging threats such as synthetic biology and global trade increase the complexity of defending the food supply. While the U.S. has robust frameworks for managing natural outbreaks, targeted bioterror attacks—especially on crops or livestock—could outpace response systems and disrupt food availability, trade, and public confidence.

Summary

In summary, the U.S. has established a strong foundational defense through legislation, surveillance, and interagency collaboration, but systemic vulnerabilities in detection speed, coordination, and resource allocation leave room for potential exploitation in a bioterrorism scenario. But biological attacks can cause tremendous destruction. If the pending litigation involving the current matter affirmatively finds that preparatory steps were being taken by the CCP on the U.S. food supply, the matter will have to be dealt with in a cautious and appropriate manner. The economic impact of a disruption to the food supply could be devastating.

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