

Fusarium Graminearum

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Fusarium Graminearum Latest News

The recent arrest of a Chinese researcher and charges against another for smuggling a dangerous crop-killing fungus *Fusarium graminearum* into the United States have brought renewed attention to the threat of agro-terrorism.

About Fusarium Graminearum

- It is a fungus that affects the kernel development of various grains, thereby reducing the yield.
- It can also cause **ear rot or stalk rot in maize crops**. Once infected, the fungus continues to spread as the crop matures.
- It is **known to survive in plant tissue residues like small grain** stems and roots and infect new plants.
- It causes **Fusarium head blight**—a disease that **ravages cereal crops** such as wheat, barley, maize, and rice.
- The fungus not only decimates yields but also **produces a toxin called vomitoxin** (deoxynivalenol), making the **grain unsafe for human and animal consumption**.

- According to the US Department of Agriculture, this disease causes over \$1 billion in crop losses annually in the United States alone.
- Vomitoxin can cause vomiting, diarrhea, abdominal pain, and fever in livestock and people, further amplifying its public health impact.

What is Agro-Terrorism?

- It is the **intentional use of biological agents**—such as plant pathogens, pests, or contaminants—to attack a **country's agricultural infrastructure**.
- It targets food production systems with the aim of causing economic devastation, food insecurity, and public panic.
- Agro-terrorism is **attractive to hostile actors** because it is low-cost, difficult to detect, and capable of triggering far-reaching economic and social damage.
- Agriculture-based sectors are especially vulnerable. Unlike military or financial systems, farms, food processing plants, and supply chains are less protected and widely dispersed.
- Biological attacks on **crops or livestock can go undetected for weeks** and are difficult to trace back to the perpetrators.
- This makes agro-terrorism a potent weapon for countries or groups seeking to destabilize a rival nation.

Fusarium Graminearum FAQs

Q1: What diseases are caused by Fusarium species?

Ans: Fusarium fungi cause vascular wilt, root rot, foot and stem rot, leaf lesions, fruit rot, head blight in cereals, and post-harvest decay.

Q2: What are the toxins in Fusarium graminearum?

Ans: Deoxynivalenol (DON)

Source: LM

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