



From the Food Safety Committee

Food Defense in the Brewery

Wade Begrow, MAHOU USA, MBAA Food Safety Committee

Food safety is fundamental to protecting consumers. Compared to other foods, beer is a relatively low-risk product, but notable food safety risks are still present (e.g., broken glass, chemicals, etc.). A robust food safety program identifies and controls hazards to protect consumers.

Food defense is related to food safety, but there are notable differences. Both are utilized to protect consumers, but the focus of food defense is on intentional adulteration. The U.S. Food and Drug Administration (FDA) defines food defense as “the effort to protect food (and consumers) from acts of intentional adulteration or tampering” (1).

Intentional adulteration of food can be conducted by internal actors (e.g., disgruntled employees) or external actors (e.g., competitors, mischievous criminals, etc.). A notable food defense-related event occurred in 2003 in Michigan when dozens became ill after ingesting ground beef that had been intentionally adulterated with a nicotine-based pesticide (2). In 2023, a disgruntled worker at a Tsingtao brewery in China urinated into a malt storage container after an argument (3). Both are examples of intentional adulteration from internal sources.

What Can Brewers Do to Bolster Food Defense?

Key aspects of a food defense plan include facility information, vulnerability assessment, monitoring, and mitigation strategies. After all, every site is different, with different levels of risk based on location. For

example, a brewery located in a heavily populated urban area may be more focused on site security than a rural brewery. For more information on building a food defense plan, visit the FDA Food Defense Plan Builder (4).

Frontline employees are instrumental in identifying, reporting, and preventing adulteration and/or tampering. Employees should be familiar with internal and external threats, and they should be compelled to report anything out of the ordinary to management. The FDA has an acronym called “FIRST” that can be used as guidance for training (5):

1. FOLLOW company food defense plan and measures
2. INSPECT your work area and surrounding areas
3. RECOGNIZE anything out of the ordinary
4. SECURE all ingredients, supplies, and finished product
5. TELL management if you notice anything unusual or suspicious

References

1. www.fda.gov/food/food-defense
2. www.cdc.gov/mmwr/preview/mmwrhtml/mm5218a3.htm
3. www.bbc.com/news/world-asia-china-67296857
4. www.fda.gov/food/food-defense-tools/food-defense-plan-builder
5. www.fda.gov/food/food-defense-training-education/employees-first

Ask the Food Safety Team

Ever have a food safety question you don't know the answer to or for which you would like a second opinion? The Food Safety team is there to help! Just post your question in the “Ask the Brewmasters” section of the community site, and the Master Brewers Food Safety Committee will weigh in or get another expert's answer for you!