



ask the
EXPERT
eurofins

Q & A WITH...



LEGIONELLA, BACTERIOLOGY,
MYCOLOGY/MOLD, USP 797,
& INDOOR AIR QUALITY EXPERT

AGNER MARTINEZ
LABORATORY DIRECTOR FOR



Built Environment Testing



Q: Regarding mycology, what is the single most important step for professionals to take when assessing and mitigating mold growth after a hurricane or major flood event?



A: The single most important step for professionals to take when assessing and mitigating mold growth after a hurricane or major flood event is controlling the moisture by immediately drying the affected areas. Mold can begin to grow within 24 to 48 hours. Removing the source of moisture and thoroughly drying out the building is the critical first action.



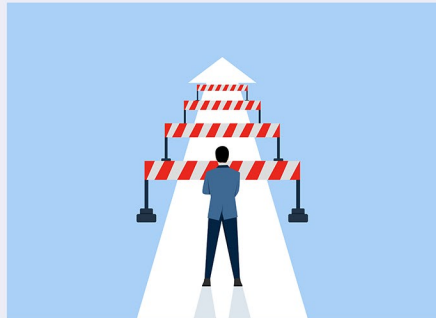
Q: Following a hurricane, what are the primary bacteriological risks you see in flood-impacted buildings, and how should professionals prioritize sampling to identify them?

A: Following natural disasters like a hurricane, living spaces can be contaminated with sewage or wastewater through a variety of sources, including raw sewage overflows, severe flooding and leaking sewer lines or septic tanks. Exposure to sewage increases the risk of contracting gastrointestinal and other related illnesses. Testing for sewage contamination generally involves analysis for organisms that are called “indicators”. The most widely used indicators for fecal contamination are *E. coli*, members of the genus *Enterococci*, and Fecal Coliform because they exist in high numbers in the lower intestines of humans and other warm-blooded animals.

Q: How do hurricanes and widespread power outages impact the risk of *Legionella* contamination in large buildings and water systems, and what are the key mitigation steps?



A: Hurricanes and widespread power outages significantly increase the risk of *Legionella* contamination by disrupting the balance of water systems and creating ideal conditions for bacterial growth. These events lead to disruptions in water flow, temperature fluctuations, and disinfectant failures, which allow *Legionella* and other pathogens to multiply. A comprehensive, site-specific Water Management Program is the most important step for preventing *Legionella* growth. The Water Management Program should be designed to control temperature, prevent water stagnation, maintain disinfectant levels, and manage complex equipment.



Q: From your perspective as a lab director, what are the biggest challenges a laboratory faces in providing critical analytical support during a post-hurricane response?

A: From my perspective, the biggest challenge in this situation would be logistics and availability of testing and laboratory supplies. Natural disasters like hurricanes disrupt power, transportation, and critical supplies. It's key for a laboratory to have a solid plan in place for emergency response and to be ready ahead of time. This is critical to ensure that critical analytical services can be provided when needed the most.

