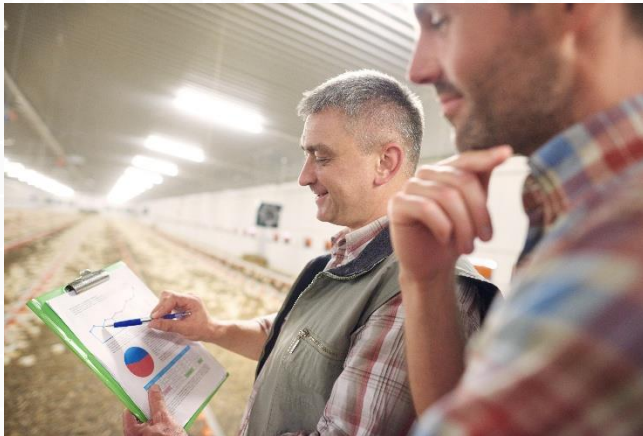


Ammonia Emissions Audit for Broiler Farms



Country of GP owner: Greece
BroilerNet Challenge: Reducing ammonia emissions

This Good Practice introduces a **comprehensive audit system** designed to monitor and **mitigate ammonia (NH₃) levels in broiler houses**.

High ammonia concentrations are a critical challenge, as they degrade air quality, impair the respiratory health of birds and workers, and reduce overall growth performance.

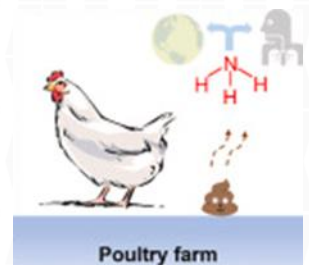
The audit provides a multi-layered framework to identify **emission sources, quantify current levels**, and implement corrective technologies to **lower a farm's nitrogen footprint**.

Key Strategic Pillars:

- **Baseline Assessment:** Continuous monitoring using handheld analyzers or probes placed at bird level and near ventilation outlets. Benchmarking targets are set at <20 ppm for bird welfare and <25 ppm for worker safety.
- **Management & Nutrition:** Integrating ventilation audits to manage litter moisture (<30%) with precision feeding practices, such as NIR feed analysis and enzyme inclusion to reduce nitrogen excretion.
- **Mitigation Tools:** Utilizing biological controls (probiotics) and inert absorbing materials like Zeolite to suppress ammonia production at the source.

Impact:

Implementation can lead to a **2% reduction in mortality and morbidity**, providing a clear financial benefit alongside improved bird welfare and regulatory compliance. The audit produces numeric performance scores, allowing for **benchmarking** across production cycles.



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