



Perry Johnson Registrars Food Safety, Inc.

Antimicrobial Resistance (AMR)

Drug residues in food are, surprisingly, one of the most common concerns among consumers worldwide. In any grocery store or supermarket, it's easy to find packages of chicken stamped with "Antibiotic Free!" and gallons of milk promising an absence of rBGH or rBST – but what other foods or parts of everyday life may be compromised by improper use or disposal of medical waste or drugs?

The proper containment of animal waste from industrial-scale livestock operations (notably pigs, but other species as well) is a widely-known issue; the inadvertent release of these materials can have a devastating effect on groundwater tables and the environment. But what about the antibiotics in such waste? If not properly managed, they can reenter the cycle. Flushing medicines on an at-home level is a common (if ill-advised) way to dispose of expired or unused prescriptions. As these compounds enter the water supply, however, they can likewise contaminate both the environment and the food supply. On a more potent level, pharmaceutical companies or medical facilities improperly disposing of materials can have a tremendous negative impact.

AMR (antimicrobial resistance) is a growing problem worldwide. The tools used to fight infections for years are becoming less and less effective as new strains of bacteria adapt and begin to resist the available drugs due to overapplication and frequent exposure. A University of Washington study showed that AMR is a leading cause of death worldwide, accounting for more than 1.2 million deaths in 2019 due to infection by resistant microbes. But what can be done to help stop antibiotics and other drug residues from inadvertently entering the food supply?

Frequent testing is the most obvious solution, particularly under the framework of an established management and supply chain strategy. This should not only include testing animals or end products, but water supplies, feed sources, and other inputs as well. Increasing awareness of the issues posed by veterinary and other drug residues into the future and keeping consumers informed of efforts to mitigate the risks will be key to helping resolve AMR threats.