

Supermarket produce harbors antibiotic-resistance genes

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Researchers from the Julius Kühn Institut, Germany have found that produce is a reservoir for transferable antibiotic resistance genes that often escape traditional molecular detection methods. These antibiotic

resistance genes might escape cultivation-independent detection, but could still be transferred to human pathogens or commensals.

The results, which highlight the importance of the rare microbiome of produce as a source of antibiotic resistance genes, are published November 6 in the open-access journal, *mBio*.

Produce is increasingly recognized as a source of pathogenic bacteria, antibiotic-resistant bacteria, and antibiotic resistance [genes](#). This study aimed to explore methods to characterize the transferable resistome—the collection of [antibiotic resistance genes](#) present in bacteria—associated with produce.

The researchers analyzed mixed salad, arugula, and cilantro purchased from supermarkets in Germany by cultivation and DNA-based methods.

These results confirmed that cultivation-independent DNA-based methods are not always sufficiently sensitive to detect the transferable resistome in the rare microbiome, such as that of produce.

Provided by American Society for Microbiology

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