

# Antibiotic resistant bacteria found in fertilizer

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Vancomycin resistant *enterococci* (VRE) have been found in sewage sludge, a by-product of waste-water treatment frequently used as a fertilizer. Researchers writing in the open access journal *Acta Veterinaria Scandinavica* point out the danger of antibiotic resistance genes passing into the human food chain.

Leena Sahlström, from the Finnish Food safety Authority, worked with a team of researchers from the Swedish National Veterinary Institute to study sewage sludge from a waste-water treatment plant in Uppsala, Sweden. She said, "Antimicrobial resistance is a serious threat in veterinary medicine and human healthcare. Resistance genes can spread from animals, through the food-chain, and back to humans. Sewage sludge may act as one link in this chain".

The researchers collected sludge from the plant every week for four months, for a total of 77 samples. Of these, 79% tested positive for the drug resistant [superbugs](#). Although VRE themselves are not generally considered to be highly pathogenic, the danger is that they may pass on their resistance genes to other bacteria. Sahlström concludes, "Our results demonstrate a need for more efficient hygienic treatment of sewage sludge, in order to avoid possible spread of antimicrobial resistance through use of sewage sludge on arable land".

More information: [Vancomycin](#) resistant enterococci (VRE) in Swedish sewage sludge, Leena Sahlström, Verena Rehbinder, Ann Albihn, Anna Aspan and Björn Bengtsson, *Acta Veterinaria Scandinavica* (in press),

[www.actavetscand.com/](http://www.actavetscand.com/)

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