

ANZBP Fact sheet

Emerging chemicals of concern in biosolids Per- and Poly- FluoroAlkyl substances (PFAS)

Per- and Poly- FluoroAlkyl substances (PFAS) are a group of man-made chemicals, which consist of a fluorinated carbon chain and at least one different atom or functional group. They have been used in a wide range of industrial processes and consumer products, including in the manufacture of non-stick cookware, specialised water- and stain-resistant materials and textiles, metal plating and in some types of fire-fighting foam. The biggest concern is their persistence in the environment meaning that these chemicals can travel long distances and also bio-accumulate. Their detection is widespread globally.

Human health impacts from exposure to PFOS or PFOA are still unknown, however, negative health impacts have been shown in animal studies, and therefore the adverse health impacts cannot be ruled out. The Environmental Health Standing Committee (enHealth) of the Australian Health Principle Committee has assessed available information and has provided guidance on appropriate safety limits. Those limits have been used to propose biosolids guideline limits to protect human health.

In February 2017, the ANZBP collated the available information from biosolids around the country. Results show that the concentrations of PFAS are well below the proposed biosolids limits, and therefore the risk of these chemicals in land-application programs is low.

Key message: Analysis of available data on PFAS concentrations in biosolids sourced from Australian sewage treatment plants has shown that although these substances are present, they are in concentrations that are unlikely to cause a concern.

