



You are invited to participate in a **farmer science project** on the topic of:

Investigating the PFAS burden in livestock raised on biosolid-amended pastures.

ELIGIBILITY

Farms that have historically applied biosolids or used wastewater effluent on their sheep or cattle pastures in the past 10 years.

RESEARCH AIMS

The research aims to investigate the impact of biosolid application on the presence of Per- and Polyfluoroalkyl Substances (PFAS) in sheep and cattle. The study will assess the relationship between the historical use of biosolids or wastewater effluent as fertiliser and the level of PFAS detected in the animals' blood samples, as well as examine the environmental distribution of PFAS in soil, water, plant, feed, and biosolid samples.

Recently, PFAS has become the subject of increasing research because of its widespread use in various products and its ability to persist and accumulate in the environment. However, our understanding of its presence within agricultural systems is limited, highlighting the need for this research.

CONFIDENTIALITY

We understand the sensitivity of this research and assure you that all results will be kept confidential. Results will be anonymised before being reported so that individual farms or participants cannot be identified. The participating in the study will not impact producers' ability to market their stock, regardless of results.

ABOUT THE PROJECT

This study is a collaborative effort involving researchers from the University of Adelaide and the University of Queensland, funded by the Department of Agriculture, Fisheries, and Forestry (DAFF). The study is a national investigation and will be conducted on different states in Australia. Our intended on-farm research activities are:

1. Blood sample collection from livestock: Collecting blood samples from 10 to 20 sheep or cattle per participating farm. This will be carried out by our trained and certified personnel and after having received animal ethics approval of the University of Adelaide.
2. Environmental sampling: Collecting soil, water and plant samples from the farms, and also from the feed and biosolids if available.
3. Farmer questionnaire: Completing a questionnaire to receive further information on the quantity and frequency of biosolid applications. Participants will receive a \$50 supermarket gift card upon completion.

Participation in this study comes at no cost to the participant, with all expenses related to sampling and analysis being fully covered by the research project. Participating farmers will receive their individual results free of charge and a copy of full outcome of this research up on the request.

RESEARCH OUTCOMES

By understanding the prevalence and distribution of PFAS in livestock systems, we gain insights into the environmental and health impacts of these pollutants in relationship to biosolid application. These results contribute to the protection of animal welfare and sustainable farm management.

TO PARTICIPATE OR ASK QUESTIONS:

Please contact project coordinator, Dr Shervin Kabiri (shervin.kabiri@adelaide.edu.au) or Dr Matthias Salomon (matthias.salomon@adelaide.edu.au | 0456 048 894)