

Gene Editing Working Group (GEWG)

Principles

Animal health and welfare

Animal health and welfare must be at the forefront of any gene editing process, risk assessing potential unintended consequences and ensuring that any attempt to improve productivity, performance, anatomy, or physiology is not at the expense of any animal's quality of life. Positive impacts of the new technology must also be considered, notably disease prevention, however this must not lead to more intensive practices (increased stocking densities due to increased disease resistance for example).

Ethics

The ethical aspects of gene editing must be reviewed in the context of the impacts on health and welfare, human health, sustainability, and the environment.

Public Health

Gene editing has the potential to promote public health through reduction of disease. Research should be used to promote this aspect of the technology. There may also be wider public health benefits through the reduction of agricultural impacts on the environment.

Sustainability

Gene editing can be used to promote more sustainable agricultural practices, through reduced inputs (medication, fertiliser etc). However, it must not be used to support unsustainable intensive husbandry to the detriment of the environment and biodiversity

Commitment to ongoing review of emerging research, technology and innovation

The veterinary profession should continue to be involved in reviewing all new evidence with regard to the development of gene editing technology and its practical applications, to ensure that animal health and welfare are upheld.

Definitions

For the purposes of this report, terms will be defined as follows. This is in line with the usage in the Genetic Technology (Precision Breeding) Act 2023.

1. **Gene editing** is changing an organism's DNA by making alterations to its genetic code
2. **Genetic modification** is the process of changing the DNA of an organism by introducing elements of exogenous DNA from a different organism or artificial sequence.
3. **Selective breeding** is selection of specific characteristics through sexual or asexual reproduction.