

Animal and Bioscience Department

Title

Genomic strategies for animal and meat provenance, authenticity and traceability

Abstract

The importance of the Irish Agri-Food export market signifies that rapid and accurate product provenance, authenticity and traceability is paramount. Genomic technology is currently used in an ad hoc approach to confirm authenticity of selected meat products. Although sufficient to generate the information asked for by the process, considerable more information can be generated by state-of-the-art genomic technologies within a highly integrated information framework. This additional information can provide a world-first marketing tool to further support and improve the already high standard traceability procedures in place. In this pilot project we will establish the key parameters and logistics of food provenance, authenticity and traceability of beef meat products using state-of-the-art genomic technologies within a highly integrated information framework. Genomic information from 7 collaborating feedlot herds will contribute to this participatory research project. The information generated will be streamlined into the national database, validated against recorded parentage where available, parentage imputed where not available, breed proportion of the animal quantified and quality statistics derived. A lower cost genomic tool will also be developed to reduce the cost of acquiring such information. The outcome is a highly integrated, low-cost information system to instil confidence among consumers in Irish meat products.

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