Integrating EID technology in hill farming management

C. Morgan-Davies¹, N. Lambe¹, H. Wishart¹, F. Kenyon², D. McBean², A. Waterhouse¹, A. McLaren¹, F. Borthwick³, D. McCracken¹

¹SRUC, Hill & Mountain Research Centre, Crianlarich, FK20 8RU, United Kingdom, ²Moredun Research Institute, Bush Loan, Penicuik, EH26 OPZ, United Kingdom, ³SRUC, Kings Building, Edinburgh, EH9 3JG, United Kingdom. claire.morgan-davies@sruc.ac.uk

Electronic Identification (EID) is based on Radio Frequency Identification; it was investigated for livestock farming in the early 1980s to accurately monitor and track animal movements. Within Europe, legislation governing traceability requires the identification and registration of some livestock species. In the UK, EID became a mandatory requirement for sheep identification in 2010. Whilst all farmers EID-tag their animals, the potentials from using EID technology to improve animal performance are scarcely exploited by livestock farmers in more extensive conditions. This paper presents results from research exploring the possibilities of applying EID technology in extensive livestock management using a hill flock of 900 ewes under two different management systems. A fixed ear-tag reader on a weigh crate and handheld electronic devices are used to assess their potential for animal data collection. Using auto-sorting technology for handling ease, targeted management decisions have been implemented based on individual animal weight changes for winter feeding of ewes and worming of lambs (Targeted Selective Treatment). On-farm labour savings have also been quantified. Issues and potential uptake of the use of EID technology for such a management approach have been assessed through workshops and surveys. Results so far indicate that such technology: is feasible to implement on extensively managed farms without compromising productivity; can provide labour savings; has potential to simplify and improve winter feeding management; reduces reliance on anthelminthic treatments and risk of anthelminthic resistance. Whilst farmers and the wider farming industry believe that using EID for farm management could be beneficial, cost of the equipment, however, remains one of the major barriers to wider uptake.