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Abstract

The readability of two different types of electronic identifiers (EID) were evaluated under pastoral production system in North-Eastern Kenya. Physical verification and reading was done at day 0, and 1, 2, 4, 8 and 12 months respectively on a total of 1943 beef cattle of which 934 were tagged using ear button tags and 1009 with rumen boluses. The retention rates were recorded and readability determined using a hand-held reader and subsequently compared using a non parametric survival analysis. The results showed that, rumen boluses were more effective with retention and readability of 100% after the one-year period. The retention rate for ear button tags deteriorated after day 120 to 94.6%. This implied that rumen boluses are safe and tamper-proof and are thus recommended for use in pastoral production systems. When tested within the model Livestock Identification and Traceability System (LITS), the use of RFID identifiers were able to substantially contribute to better record keeping, and proof of credible livestock certification. However, due to cost considerations, undertaking a benefit-cost analysis and provisional analysis of the institutional and organisational infrastructure may be critical for successful implementation.