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Use of UHF (Ultra high Frequency) RFID technology in the data capture, traceability and monitoring interface in the official cattle animal identification program.

Jorge Gomes¹, Masaharu Shimizu²

¹ ALLTAGS Solutions in Animal Identification, São Paulo, Brazil, CEO. jorge@alltags.com.br

² HLA – Hana Latin América, São Paulo, Brasil, CEO. mshimizu@hanalatinamerica.com

The use of radio frequency RFID devices is already widespread in animal identification. The need to adopt new, more flexible and efficient technologies is part of the demand for technicians, farmers, government entities and food companies. Innovative Ultra High Frequency (UHF) technology is a viable alternative, considering its applicability, flexibility and use efficiency in line with good production practices in the food chain.

In 2013, the State of Mato Grosso do Sul, Brazil, to maintenance and expand of sanitary status at OIE - World Organization for Animal Health, implements a Zone of High Surveillance - ZAV in the regions bordering Paraguay, Argentina and Bolivia. This zone establishes an area of approximately 12,000 km², involving 13 municipalities. To guarantee the inventory of animals, control of movement and monitoring of sanitary procedures, the state government establishes the use of individual and inviolable eartags with RFID - UHF technology laser printed with official numbering provided by MAPA - Ministry of Agriculture and Livestock. Mobile collectors with an internal UHF RFID antenna were used with the ability to read and record electronic eartags information, linking it to the GPS coordinate (Global Position System), data transmission via mobile telephone network using GSM / GPRS technology, and centralizing the storage of data and information in an official database; provided an effective tool for the traceability and individual monitoring of ZAV animals. In addition, the official system of issuing the animal transit guide - GTA, as well as the fiscal documentation for the movement of the animals in the same collector was implemented, thus generating agility and safety in official controls. In the implementation of this project, more than 1,000,000 bovines were identified, thus confirming the viability and efficiency of this technology for animal identification.

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