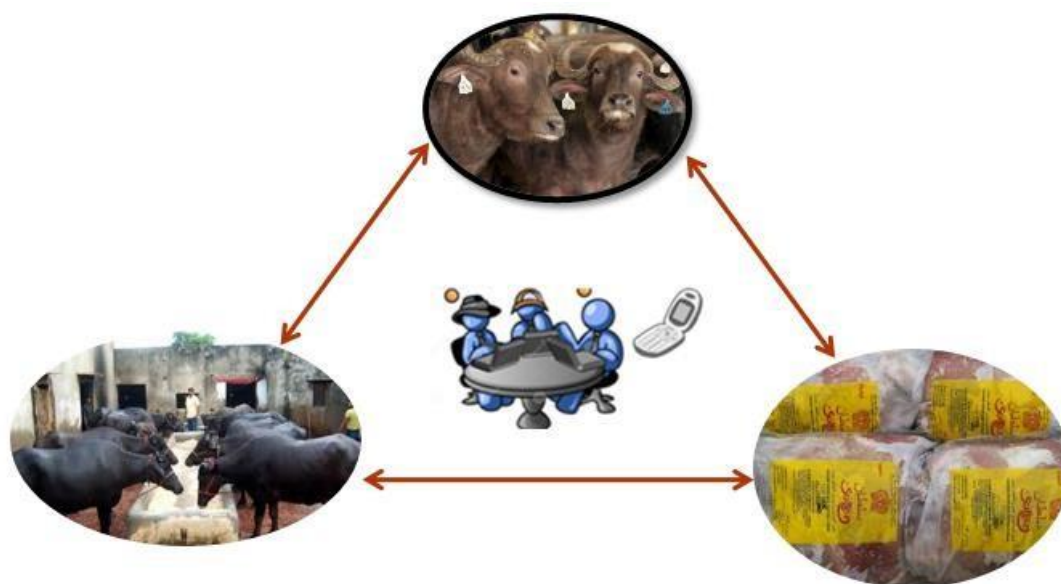




Traceability System for Buffalo Meat Industry for Quality Assurance and Augmenting Exports



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Preamble

Traceability is the ability and the mechanism designed for tracing of an animal product along all steps in the production chain back to the holding of origin of the live animal from which the product was derived. Applications of livestock traceability system are several, some of them are to ascertain origin and ownership, deter theft of animals, detect misrepresentation/ adulteration of meat, surveillance, control and eradication of animal diseases, comply with requirements of international customers, improvement of supply-side management, to minimize product recalls and to make crisis management protocols more effective. Meat traceability system will enable achieving comprehensive quality assurance which can greatly enhance market access to Indian meat in international market. No meat traceability system was available at national level in India. To address this issue a complete buffalo meat traceability system was developed by ICAR – National Meat Research Institute, Hyderabad.

Description of technology

Developed meat traceability system involves identification of buffaloes using RFID tagging and meat by using bar coding. A livestock traceability database (www.livestocktraceindia.com) which enables storage of information of animal, farm and abattoir on web based database has also been established. Database provides provision for enrollment of animals, farms, abattoirs, veterinarians and meat processing plant. It enables real time updating and retrieval of information. Database provides provision for recording of performance of animals and different farm activities like insemination, pregnancy diagnosis (PD), calving, weight gain, milking, dry, vaccination, deworming, feeding, purchase, sales and medication. It provides provision for creation of farm activity reminder system which enable efficient management of the herd. In abattoir information regarding ante & post mortem inspection can be uploaded on database. Consumer can retrieve the information regarding the meat by using retrieval system of traceability database or through SMS. Traceability enabled meat will have better acceptance among consumers. In the long run can get premium price for the meat produced from traceable animals as the system followed is internationally accepted and will improve marketability of products in international market. Methodology was successfully pilot tested at different organized buffalo farms and in one export abattoir. Effort is being made to upscale the usage of the traceability by stakeholders by joining hands with different regulatory and developmental agencies.



Fig 1 (a): RFID devices



(b) Buffalo calves identified with RFID tags

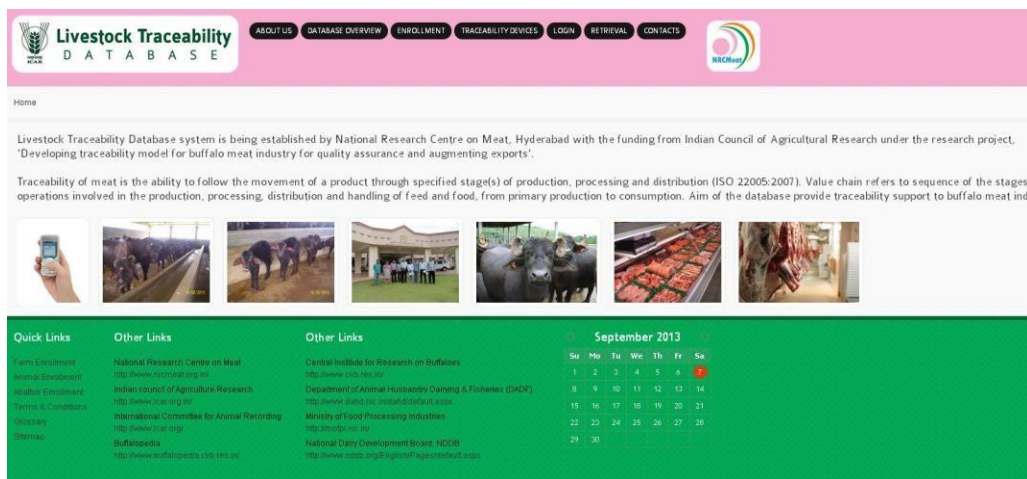


Figure 2: Home page of the livestock traceability database (www.livestocktraceindia.com)



Fig 3: Slaughter of tagged and enrolled buffalo



Fig 4: Reading of tags using RFID reader in the slaughter line

Contact

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