New identification system of national livestock in Tunisia

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In Tunisia a new numeric identification system using plastic ear tags unviolable and laser engraved has been introduced since 2002 to progressively replace the old method using tattooing alpha numeric practices used since the sixties. This was done to assure a bigger cover of national livestock through identification and to improve quality of recording of zootechnical and health aspects, to get a data base that allows having traceability under its wide aspects: zootechnical, genetical, health, administrative and economical with regard to new positioning and integration of the national economy within the globalization context.

The new identification program relies on the following 4 main issues: Structural organisation; information collection system, management of national data bank, follow up of regulated diseases and rules and procedures of implementation by different operators in the sector. Cattle identified and recorded are rewarded «an official certificate of identification» joining the animal during all its life, travel and transportation and serves to follow up zootechnical, health and traceability features.

Key words: identification, cattle, passport, traceability.

With 450310 female units of cattle in 2003, cattle represent an important source of proteins within Tunisian food diet. Tunisia has now a self sufficiency status for red meat. National production in 2003 is around 11 0700 metric tons with an average annual consumption of 11.4 kg/person.

Consumers attitude toward their diet evolved during these last years. Price and lack of risk (safety) became major factors of their choices.
Consumers expressed clearly their requirement of safety during various food crises. Recent episode of BSE or commonly called disease of crazy cows and the need to re-establish consumer confidence have incited Tunisian public power to start defining «national strategy of livestock identification, labeling, and traceability of red meat».

It is useful to remind that official animal identification was introduced in Tunisia since the sixties for performances’ follow up of the first 250 dairy cows imported then Marking of animals was made by tattooing of alpha numeric number on animal ear. But given its limits and health danger, this technic was dropped out since 2002 and a new numeric identification system was introduced using plastic ear tags, inviolable and laser graved. This method will enable extending this technic to cover all cattle livestock (2 million heads) by 2010, to assure recording of identification data, health and moving follow up through passport establishment for cattle. In fact, this will assure follow up and traceability from birth to slaughter of registered animals (Figure 1).

![Figure 1. Evolution of cattle identification.](image_url)

In addition to its positive impact on zootechnic and genetic improvement programs’ management, this new identification system represents a must and an essential instrument in order to set up a traceability global system at the level of food chains for red meat and to strengthen Tunisian consumer confidence in national production and to guarantee, in the frame of globalization, positioning and better integration of national economy.
The elaboration of the guideline of rules and procedures, the full implementation of the new identification system requires several accompanying measures which will enable to achieve programs in time and in the best way with regard to projections and to expectations considering livestock specificities in Tunisia.

Seventy percent of cattle are held by small and medium size farmers owning less than 10 cows and 10 hectares of land each. Accordingly, a certain number of measures and elements were taken into consideration to assure livestock holders’ adhesion and to enhance success of program implementation, such us:

- Set up of a unique official numeric identification system for all livestock. This system is made up of 12 characters, including the ISO code of Tunisia “TN” followed by a series of 10 numbers of which the first two refer to the area (gouvernorate) code of the farmer and the 8 remaining numbers refer to the individual animal.
- Using laser engraved, inviolable plastic ear tags printed by an OEP managed unit.
- Introduction of farmer kept records of all animal entries and exits on the farm and their information to the animal recording organisation.
- Ear tags and their put up are free of charges to small and medium farmers with support of public funds.
- Set up of national data base on animal identification, production and health follow for a better use of results by different stakeholders at national and regional levels. The national identification data base (BNDI) managed by OEP will be linked through a server and optical fiber to the animal health data base kept by the Directorate General of Veterinary Services (DGSV). Through this connection the BNDI animal passports/certificates for animal movements (trade or slaughter) will be updated with information about contagious diseases.
- Involve progressively private and professional operators in the implementation of the new identification program.
- Livestock legislation in preparation will constitute a new framework for all zootechnical, genetic and health programs and activities by the public and private sector.
- In the initial phase OEP will continue to carry out the implementation of the identification program. In a second phase identification and recording tasks will be progressively carried out by the organized farm sector, including OTD, UCP, SMVDA and the big size farmers. In a third phase, the agricultural and professional organizations and private operators will be able to carry out these duties with the small and medium size farmers after the specific guidelines have been prepared for this activity (Figure 2).
It is estimated that the total investment to implement this identification program will be 4 million dinars. Of this sum the World Bank project “Support to Agriculture Services” is expected to provide about 2.3 million dinars, the State budget for 1.0 million dinars and the contribution of the big farmers is estimated at 0.720 million dinars, the latter starting from the 4th year of the program (Figure 3).

Figure 3. Financial sources for cattle identification program (million DT).
Since January 2002, calves, cows and bulls are identified with plastic yellow, laser engraved ear tags to assure labeling and traceability of red meat in the consumer market. When this first link of traceability is mastered successfully, the other links can be achieved with continuous control of traceability of the animal and its products from birth to slaughtering.

In addition, with the promulgation of livestock law and by setting up standardized programs of animal marketing and slaughters, improvements of product quality and competitiveness will be realized. This will eventually give the red meat sector an opportunity of reaching also foreign markets with certified products.