
Guidelines for Development of Performance Recording in Low-to-Medium Input Production Systems - A Perspective

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Two thirds of the world livestock population are in developing countries where the great bulk of animal products is from low-to-medium input production systems. Such systems range from animal based pastoral systems to mixed farming and landless systems. Animals or systems recording is a prerequisite for any serious effort to develop animal production at the farm or the industry level. However, such a recording is not common in developing countries and where this has been attempted, frequently high-input system technology has been inappropriately employed. In the desire to achieve food security in many of these areas, development of a range of adapted animal genetic resources will be essential. This will commonly involve the use of appropriate recording and breeding strategies for these medium input systems.

Developing an animal recording system in general and in low-to-medium input animal production systems in particular is a challenging task for it has to take into consideration a wide range of basic factors like what records to take to achieve what objective, the socio-economic situation, the structure of the livestock industry etc. FAO is attempting helping all concerned to develop sustainable recording systems in a range of production environments. FAO plan is to establish Guidelines for the development of performance recording in medium input production environments. In relation to the FAO Global Strategy for the Management of Farm Animal Genetic Resources, These Guidelines represent one segment of the Primary Guidelines for country use for each livestock species. The document: Primary Guidelines Document for development of National Farm Animal Genetic Resources Management Plans can be viewed on the Domestic Animal Diversity Information System (DAD-IS): (URL <http://www.fao.org/dad-is/>).

Another segment of this activity will concern breeding strategies per se and will utilise aspects of this performance recording activity.

In taking this comprehensive approach it is accepted that all breed development must be based on one or more visually observed and/or measured traits of interest; and that the logistics of doing this and the technologies applied can be complex over time and are often poorly considered and maintained. There is now a great deal of experience in the development of performance recording systems for high-input production environments and that is why the main emphasis in the development of these guidelines should be low to medium input systems, perhaps emphasising the medium in the first instance. Further, it is recognised that until now the development of performance recording systems has been somewhat of an art, at which technicians are often poorly equipped. It is also accepted that irrespective of the situation (developed or developing country, high or low input, etc.), for performance recording systems to produce (maximum) useful information in making the desired management and breeding decisions, at minimum cost of time and money, and for these systems to have continuity, good principles of experimental design and proper use of relevant technology, must be integrated with livestock system structural, input and output variables, and with the capabilities and social aspects of the human resource. This is often taken for granted but it serves to highlight the issues and level of complexity which need to be considered in arriving at useful guidelines.

The approach to reach the goals of this activity was : i. The documentation of a range of case of studies of actually functioning recording systems in a range of production environments (emphasising low-to-medium). These case studies are published among country presentation in these Proceedings (Part II); ii. Preparation of four seminal by world authorities on the subject to delineate the topic and develop a knowledge-base of principles. These seminal papers are presented in this Part; and iii. Collaborate with international (International Committee for Animal Recording, ICAR) and national (Indian National Dairy Development Board ,NDDB) to organise a meeting with participation from mainly developing countries to discuss country and general presentations and the seminal papers to arrive at useful conclusions/recommendations..

FAO had also a consultant to participate in the Workshop and prepare the Guidelines on Animal Recording.