Proceedings
The 12th International Conference of THE ASSOCIATION OF INSTITUTIONS FOR TROPICAL VETERINARY MEDICINE

Does control of animal infectious risks offer a new international perspective?

Montpellier, France
20-22 August 2007
LASER AND 12MO: TWO METHODS AND TOOLS FOR ESTIMATING BASELINE LIVESTOCK DEMOGRAPHIC PARAMETERS IN DEVELOPING COUNTRIES

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ABSTRACT

Demographic rates (i.e., fecundity, mortality, offtake and intake rates) are necessary for assessing animal productivity and modeling the dynamics of tropical livestock populations. These rates are estimated from data collected in the field. In developing countries, data collection and management is a tricky part of the studies. In that context, we present two standardized survey methods for ruminants and camels managed in extensive or semi-extensive farming systems. These methods can be adapted to many contexts (animal production and health, genetics or agricultural economy) and are provided with operational tools for data management and analysis. The first method, LASER, is based on longitudinal follow-up of herd with individual identification of the animals. Gold-standard of the on-farm methods, LASER is well adapted for accurate assessment of herd productivity and impact of new technologies (vaccine, reproduction,…). The second method, 12MO, is a rapid appraisal method based on retrospective cross-sectional interviews of the farmers and on their mental records of the livestock demography. This method provides more approximate data, but is quicker, less costly and easier to implement, even in large areas. It can be implemented for assessing impact of particular and unpredictable events such as droughts or disease outbreaks.

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