Goat management and systems of production : global framework and case studies in the Caribbean

Gisèle Alexandre, Eliel González García, C. Lallo, E. Ortega-Jimenez, F. Pariacote, Harry Archimède, Nathalie Mandonnet, Maurice Mahieu

19. Goat management and systems of production: global framework and case studies in the Caribbean

Alexandre G., Gonzalez E., Lallo C., Ortega-Jimenez E., Pariacote F., Mandonnet N., Mahieu M.

Gisele.Alexandre@antilles.inra.fr

Animal output must be considered as a complex set of activities that it are dependent upon numerous abiotic, biotic and socio-economic factors that, in most cases, are interrelated. Increasing reproductive performances, reducing mortality rate, accelerating growth rate and improving carcass merit or milk quality are multiple and interdependent objectives. Thus, the characterisation of the animals and the systems (together with their different combined factors of variation) must be done for the different interrelated animal traits contributing to production. That means that a multidisciplinary approach is necessary. Setting priorities and implementing research within development projects are better accomplished through the farming system concept and a holistic approach of interrelated factors of variation. Keeping this in mind, this paper outlines the interest of the farming system approach, and then it outlines a general framework of the numerous factors of variation involved in goat performances. From these, guidelines are proposed for i) piloting the whole system by the way of reproductive management, ii) matching the system to available feed resources, iii) implementing an integrated health control protocol and iv) adapting the breeding improvement approach to the local sector's characteristics. The second part of this paper presents case studies gathered from different experiences in many countries of the Caribbean basin (*sensus largo*). The intention is not to give ready-made solutions but to highlight the preceding guidelines by factual data obtained in different countries, in order to share these experiences and allow the reader to form their own opinion to be adapted to their situation. The climatic effects (the direct effects of this abiotic factor) upon dairy breeds are assessed, the use of male effect (one very efficient and natural reproduction management practice) is explained, the interest of forage-trees is determined (keeping in mind the need of exploiting the local available feed resources) and the integrated health control (as a sophisticated mean of reducing the infection risk) is described. Although meat is the main goat output under the harsh conditions of the region, one aspect of this work, is devoted to the case of goat milk production in Caribbean basin within their respective assets and constraints