Enhancement of goat meat production in Guadeloupe through setting up of a breeding scheme for the indigeneous breed: from theory to facts

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The mismatch between supply and demand for goat meat in Guadeloupe led to the rising price thereof and a growing dependence on imports. Moreover, the heritage and identity of goat farming is very important on the island. Based on these observations, a breeding program was designed to preserve and enhance the population of Creole goats. Its image would be enhanced by the way, including tangible morphological changes. Farmers cooperative CABRICOOP initiated the project to improve the economic viability of farms. The program was then built thanks to a partnership between the CABRICOOP, the extension services and INRA. A 4-point approach was developed: 1) Characterization of farming systems and farmers' expectations in a field survey, 2) Identification of the basis for selection, 3) design of the selection scheme, 4) optimization of the scheme. The definition of the standard of the breed and the development of a scorecard enabled the selection of 500 Creole does in 10 farms. The breeding objective discussed with farmers integrates production traits (carcass weight and yield to 11 months), reproduction (fertility) and resistance and resilience to parasitism. The genetic parameters of the traits were estimated thanks to the database recorded in the Creole experimental flock of INRA. Weight and fertility are the two components which improvement generates the greatest profit. Simulations of responses to selection showed that it was possible to improve these production, functional and adaptation traits simultaneously. The annual genetic gain was simulated in a closed nucleus flock of 300 does and 15 bucks. The expected progress is 800 g/year for weight at 11 months and 3.7% for fertility, prolificacy being maintained and resistance slightly improved. Breeding objectives of production, reproduction and adaptation to the environment are compatible for Creole goats in Guadeloupe, which thus becomes a sustainable support for final crosses.