



G-76

Development of breeding schemes in overseas regions: the case of goats for meat production in the Reunion Island

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In the French island of Reunion, (Indian Ocean, 800,000 inhabitants), 37,600 goats are reared mainly for meat production. Farming systems are very diverse but they still constitute a secondary activity generating an income supplement. The herds are genetically very heterogeneous and derive from crossbreeding between land race goat (Cabri Péri), endangered species, and exotic races (Saanen, Boer, Alpine). Goat meat is highly appreciated in Reunion. 700 to 800 tons of goat meat are imported each year. To increase local production, breeders are primarily oriented to the Boer goat. This specialized breed meat is present for several decades. Any importation of ruminants is however suspended for health reasons. So, Farmers decide to develop a breeding scheme based on artificial insemination. Research, development and selection institutions work with breeders to define Boer dom's standard, so that the race is officially recognized in France. The selection scheme aims to improve meat production. Evaluation of the animals is based on a grid developed by the people involved in goat production sector. The evaluation grid is currently tested on 450 crossbred females. These females are inseminated artificially with boer goat semen produced by Capgènes, the single French National Centre of production of buck seeds. The assessment skills are suitable both for males and females and give a judgment on the characters of race (9 positions) and functional (11 positions). Race characters therefore account for 75% of the final score. At the same time 8 morpho-biometric measurements are performed to characterize the goats that will form part of the basis for selection. Insemination protocols are tested and validated over a period of three years. In France, there is not a certified performance testing for goat meat production; so we adapt the method and the tool developed for mutton sheep. The objective is to characterize 1,400 goats to select 1,000 for the basis of selection. We have developed tools to enable the implementation of the schema of the Boer Dom selection. However we must still specify measurable and quantifiable objectives of selection.