Does Organised Boran Cattle Breeding Increase Productivity? A Case Study on Ol Maisor Ranch, Kenya

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Abstract

Ol Maisor is a working beef cattle ranch in semi-arid Laikipia District of Kenya. The ranch has a population of 3000 head of Improved Boran cattle (mother cows, offspring and fattening stock) in a herding system and is recording cattle performance – reproduction and growth – on a file card system since over 30 years. Registering a foundation stud herd with the Boran Cattle Breeders Society of Kenya (BCBS) and developing an own Ol Maisor line is intended by the rancher. The aim of this study was to assess the beef cattle characteristics desired by the rancher in the given environment, compare these with the BCBS breed standard, and select - based on the existing performance records - the founder population to be presented for registration to BCBS. The study then aimed at comparing future herd demography and herd productivity of the selected founder population with the overall ranch population.

Records on reproductive performance (dates of births, deaths, cullings, sales and acquisitions) and growth (birth weights, weaning weights) of all living mother cows (n= 953) were transferred into a computer database and imported to the commercial herd management software COW SENSE(® Midwest Microsystems L.L.C.). Interviews were held with the rancher and neighbouring Boran cattle breeders to define selection criteria. After setting selection criteria with the rancher COW SENSE was used to identify the 100 top performing cows (n = 100). Visual pre selection of these cows was done at the crush with Ol Maisor herdsmen to ensure consideration of fitness traits and scale of points of BCBS. Of these, a subset of 60 were registered and branded by a BCBS inspector. Model calculations with a bio-economic livestock herd/population model (PRY/HerdLife) will be presented on herd demography (population structure, growth and potential offtake at different culling and disposal regimes) and productivity (total output value per dry matter intake) comparing the registered subpopulation with the initial overall population. Results will indicate whether conscientious breeding according to BCBS standards has the potential to increase productivity in beef cattle ranching when compared with beef production as traditionally practised by ranchers in the region.

Keywords: BCBS, beef cattle, herd demography, herd productivity, improved Boran, stud herd registration

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