

Biotechnology in livestock production: Animal breeding and genetics in the context of Africa

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Biotechnology is important in Africa to the pressure of producing more food from animals for the ever-growing human population. Animal nutrition biotechnologies are steadily developing in Africa mostly through local technologies that ensure degradation of fibrous feedstuffs. Local technologies suffer one setback; they are mostly mechanical and thus tedious and impractical for implementation in large scale scenarios. The availability of lignase enzyme produced by the soft-rot fungus that causes a high degree of depolymerisation of lignin should be embraced for application in large scale livestock production systems. As opposed to forage degradation, a more current problem is anti-nutritive factors that hinder acceptability and diminish the nutritive value of animal feeds. Although this constraint has been circumvented elsewhere through plant breeding and use of transgenic bacteria to eliminate, reduce or detoxify feeds, little has been done in Africa in boosting the nutritive value of conserved feeds of great concern in Africa due to seasonal variation in feed availability, treatment for silage also still primarily molasses as opposed to enzymes and inoculi of lactic acid bacteria. The absence of large scale production of silage for commercial purposes in most sub-Saharan countries has limited the use of additives such as chloroform, toluene and cresol to inhibit bacterial growth in order to facilitate fermentation by lactic acid bacteria.

Biography

Abdu Sulaiman Bwayo completed Ph.D. in Livestock production and Management, BAS in Agriculture and environment, Makerere University, Faculty of Science in Agriculture and environment, and soon completed Master of Science in Agriculture Economics. He is the Associate Dean Faculty of Agriculture and Environment, as well as a lecturer of Animal science and soil science at Sanaag University, Sanaag Region Somaliland. He is the Director of Kigumba Community Training College, Agriculture research centre (KARC) in Kiryandongo District, Uganda. He is also the Director of Support Women Empowerment Development (SWED-Uganda). He has published more than 7 papers in this field and that of soil conservation.

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