

THEME 4 | GENETICS, GENOMICS, ANIMAL BREEDING AND REPRODUCTION**Size of the experimental plots for experiments with *Cynodon nlemfuensis***

Eduardo Moreira Barradas de Souza¹, Flávio Rodrigo Gandolfi Benites², Fausto de Souza Sobrinho², Maria Izabel Vieira de Almeida*¹, Gisele Rodrigues Moreira¹

¹Centro de Ciências Agrárias e Engenharias/Universidade Federal do Espírito Santo, Alegre/ Espírito Santo, Brazil. ²Embrapa Dairy Cattle, Juiz de Fora/Minas Gerais, Brazil.

*Teacher - almeidamiv@hotmail.com

Forages of the genus *Cynodon* combine nutritional and productive characteristics that allow high yields per animal and per area, having great importance in animal feeding. They present advantages such as high productivity and quality of forage, ability to respond to fertilization, resistance to trampling, good adaptability to different types of soils and climate, good tolerance to moist soils, low temperatures and high tolerance to the high pressure of grazing. These factors distinguish the genus *Cynodon* from others that dominate in tropical conditions and justify its use as a promising alternative for producers who seek efficiency in milk production through sustained intensification of activity. The experiment consisted of a blank test with *Cynodon nlemfuensis* pasture, conducted at the Experimental Field of Santa Mônica farm, belonging to the Brazilian Agricultural Research Corporation (Embrapa Dairy Cattle), located in Valença, RJ. The experiment consisted of 400 basic units (BU) of 0.25 m², in which the green forage weight was obtained in two cuts, one in dry period (April, 4th, 2012) and the other in rainy season (October, 30th, 2012). For the determination of the optimal plot size, the methods of maximum modified curvature and maximum curvature of the coefficient of variation (CV) were used. For the determination of the convenient sizes, the method described by Hatheway was used. These estimates were obtained for the first and second cuts and also for the average of the cuts. The optimal size of experimental plots for *Cynodon nlemfuensis* considering the method of maximum curvature of the coefficient of variation and the modified maximum curvature is of six BU's (1.5 m²). By the Hatheway method the convenient and practical size generating the highest experimental accuracy gain, optimal size is ten BU's (2.5 m²) for the first cut with 15% Significant Minimum Difference (SMD), eight blocks and from five to ten treatments. For the second cut the convenient and practical size is 13 BU's (3.25 m²) with 20% SMD, ten blocks and from five to nine treatments. For the medium of all cuts the convenient and practical size is nine BU's (2.25 m²) with 20% SMD, eight blocks and from six to ten treatments.

Keywords: blank test, coefficient of variation, experimental precision

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