

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

PRODUCTIVE PERFORMANCE OF GIROLANDO COWS IN SEMIARID OF PERNAMBUCO STATE

Maria das Dores Silva ARAUJO^{1*}, Júlio César Vieira de OLIVEIRA², Antonio Santana dos Santos FILHO², Rodrigo Cavalcante de CARVALHO², Vanda Lúcia ARCANJO²

*corresponding author: maria.araujo_zoo@hotmail.com

¹Universidade Federal Rural de Pernambuco, Recife, Brasil

²Instituto Agrônômico de Pernambuco, Arcoverde, Pernambuco, Brasil

The objective of this paper was to study the behavior of milk production of pure synthetic Girolando cows by the Gamma Incomplete Function of Wood, the influences of order of birth and calving time on following parameters of function: "a" reflects the lactation beginning, "b" refers to the ascending phase of curve and "c" refers to the descending phase of function. To observe the characteristics of initial production (P), production at lactation peak (PP), time at lactation peak (TP) and Persistence (PER). To observe the characteristics of initial production (P), production at PP, time at TP and PER. The lactation curves of 560 cows were studied by the Arcoverde's Experimental Station belonging to the Instituto Agrônômico de Pernambuco (IPA) in the period of 1999 to 2008. The SAS software was used to analyze the data. The order of birth and the calving time significantly influenced the parameters a, b and c of the lactation curve ($p < 0.001$). The curves were curvilinear with a decrease in production from the lactation beginning. Second and third calving cows sequence presented higher Initial (P) production than primiparous cows. These animals showed a larger decrease in the production in the first month of lactation, and lower persistence, while the 2nd and 3rd order showed strong falls throughout lactation and greater persistence. The lactations that started in the dry season presented higher production than the rainy season. The primiparous presented negative values for parameters b and c of the model. The cows of 2nd order presented lower PP than the cows of 3rd order of birth (PP = 11.45 kg and 14.06 kg). The cow of 2nd order presented TP than the cows of 1st and 3rd order of birth (TP = 2.43, 5.48 and 16.38 days). Regarding persistence, the cows of 3rd were superior to the 1st and 2nd order (PER = 5.57, 0.0 and 2.65). Cows that started lactation in the dry season presented higher TP than in the rainy season (TP = 1.66 days and 1.32 days), higher PP (PP = 10.84 and 8.47 days), and those that gave birth in the rainy season presented better PER (PER = 2.95 and 2.67). The R² values found, ranging from 8-17%, indicate that the function did not produce a good fit for the lactation curve of the cows studied. The animals studied were persistent regarding the lactation duration.

Keywords: Lactation, Nonlinear Model

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