

115. Impact of the service period under the dynamic of a semi-intensive dairy goat herd

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The dynamic of herds is created by production indexes being distinct the behavior that each one produces in the herd. The reproduction and sanitary indexes appear to be responsible for the main deviation in an evolution of a herd which the service period could be highlighted as one of the major indexes. This way, the objective of this study was to analyze the effect of the service period under the dynamic of a semi-intensive dairy goat herd. Using a dairy goat model programmed in Vensim® the indexes based on the *Brazilian Agricultural Research Corporations (Embrapa-Goats)* were used for parameterization. Were simulated different scenarios with the service period of 90 and 210 days and a retention rate of young does of 50, 75 and 100%. All simulations began with 20 nuliparous does in the beginning of the breeding season, seeking to stabilize the herd with 65 animals. By increasing the period service from 90 to 210 days two distinct results were obtained. Considering a service period of 90 days the time necessary to reach the equilibrium was 56.3, 44.2 and 37.9 months, respectively for 50, 75 and 100% of retention rates. On the other hand, when considering a service period of 210 days the time to reach the equilibrium was 73.9, 52.6 and 41.7 months, respectively for 50, 75 e 100% of retention rates. For this reason, the increase in the service period raised the time to reach the equilibrium to 17.6, 8.4 and 3.8 months, respectively for 50, 75 e 100% of retention rates. The variation in the service period showed major impacts in a growing herd when a smaller retention rate was taken. Although the smaller time to stabilize the herd using a retention rate of 100%, this situation did not create a selection pressure for milk production with absence or very small genetic gain. The reproductive performance of the herd is important to reduce the service period, becoming the system more efficient. This way, the impacts in the production system under different service period and retention rates must be well understood to help in the decision making.