LEVELS OF LYSINE AND METABOLIZABLE ENERGY AFFECTS EMBRYONIC SURVIVAL IN A MODEL *Sus scrofa*

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The diet with certain levels of amino acids and energy affects the reproduction of mammals. The aim of this work was to evaluate the influence of nutrition with known levels of lysine (LYS) and metabolizable energy (ME) in the embryonic survival (ES) in model *Sus scrofa* as a biomedical model. The experiment was conducted with 48 pigs, in the 4x2 factorial experiment, in which the levels of LYS (13.5, 16.5, 19.5, 22.5 g/day) and ME (8600 and 7500 Kcal/day) were studied in 8 treatments (n=6/treatment). The gilts were subjected to artificial insemination (AI) in the second oestrus. The slaughter of females was held 28-35 days after the AI. The uterus were analyzed and the embryos classified into viable and unviable. The number of corpus albicans and corpus luteum were counted in the ovaries. Embryo survival was defined as the ratio of the number of viable embryos/number of ovulations. The result of the corrected average (lsmean) of the rate of ES indicated that the diet of 13.5 g/day of LYS and 7500 Kcal of ME had the highest rate of ES (0.904), while the lowest (0.751) was found in the diet of 13.5 g/day of LYS and 8600 kcal of ME. The overall interpretation of the results indicates that an optimized balance of LYS and ME levels have important role in the survival of swine embryos.

Key words: embryo survival, energy intake, energy/lysine ratio, lysine, swine