

II INTERNATIONAL SYMPOSIUM ON SCIENCE AND BIOTECHNOLOGY ENTREPRENEURSHIP AND INNOVATION

IN VITRO AND IN VIVO TECHNOLOGICAL VALIDATION OF ISOTHERMAL EQUIPMENT DEVELOPED FOR THE PROCESSING OF COOLED SWINE SEMEN

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Abstract

Agribusiness is a segment that contributes greatly to Brazil's economy. In this segment, the production of animals for animal protein in the food industry stands out. In order to meet the demand of pigs, the artificial insemination-IA with cooled semen is used in its reproduction. In this research, with the aim of increasing the efficiency of the AI process with cooled semen, a new isothermal technology was developed for the processing of swine semen. The experiment was authorized by the CEUA protocol 002/2013 and carried out in the northern plateau of Santa Catarina. Were used ten AG337 males from 16 to 21 months of age and 430 dairy females aged 200 to 230 days. The in vitro test was utilized to measure the efficiency of the equipment. The ejaculate was collected, diluted, stored for 10 days at 15 to 18°C. For the in vivo test, the doses were stored for up to 4 days. For in vitro analysis, plasma membrane integrity tests were used for phase contrast, progressive motility, total motility and morphology, all using the CASA system. It was obtained an average increase of biological quality of 15% compared to the control. The number of animals born increased by 0.5 piglet / delivery compared to the control group. The technology proved to be efficient and adequate to improve the outcome of the artificial insemination process in a Genetic Dissemination Unit.

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