

Use of Assisted Reproductive Technologies for Livestock Development

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Abstract

Genetic improvement of farm animals is a prime concern over the years for researchers. Several reproductive technologies have been employed to achieve this. Assisted reproductive technologies like Artificial insemination, Superovulation, In vitro Fertilization, Embryo Transfer have been introduced to overcome reproductive problems, to increase the offspring from selected female's and to reduce the generation intervals in farm animals. The progress achieved during the last few years in the assisted reproductive technologies field has been phenomenal. Artificial Insemination (AI) is the most effective method being used for the genetic improvement of animals. Reproductive capacity and efficiency has been improved tremendously since the introduction of artificial insemination. The development of cloning using various cells from the animal body has created opening of a fascinating scientific arena. These technologies have been propounded as saviors of indigenous livestock breeds. These alternative reproductive techniques are available not only for manipulation of reproductive processes but also proven to be powerful tools in curbing the spread of vertically transmitted diseases. The successful reproductive technologies such as AI and Embryo transfer need be applied on a large scale, emerging biotechnologies such as MOET, IVF and Cloning provides powerful tool for rapidly changing the animal populations, genetically. This advanced reproduction technologies will definitely play an important role in the future perspective and visions for efficient reproductive performance in livestock.

Key words: Oestrus Synchronization, AI, Cloning, MOET & IVF