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ADMINISTRATION OF HORMONAL PREPARATIONS FOR THE PURPOSE OF INDUCING AND SYNCHRONIZING ESTRUS

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• Introduction

- ✓ Reproductive management in sheep farms is based on the use of biotechnological methods that allow increasing reproductive potential.
- ✓ The management of reproductive function in sheep involves the implementation of zootechnical and organizational measures: induction and synchronization of estrus, ovulation control, induction of superovulation, artificial insemination, embryo transfer.
- ✓ Induction and synchronization of estrus in sheep during the non-breeding period is important as it contributes to the efficient improvement of reproductive performance in sheep by:
 - ✓ shortening the estrus interval,
 - ✓ increasing the gestation rate and birth rate,
 - ✓ shortening the time interval between generations.
- ✓ In sheep farms where increasing lamb production is the main objective, estrus synchronization is the main factor that:
 - ✓ minimizes the effects of seasonal factors on reproduction,
 - ✓ extends the breeding season,
 - ✓ adjusts the lamb delivery time,
 - ✓ shortens the lambing cycle,
 - ✓ allows two to three lamb deliveries every 2 years,
 - ✓ contributing to a low economic cost of reproduction,
 - ✓ while increasing the number of lambs and, implicitly, obtaining economic benefits.

• Material and method

- ✓ To induce and synchronize estrus in the non-breeding period in sheep, various hormonal treatments have been developed to influence the reproduction cycle of sheep.
- ✓ When choosing the scheme and method of administration, the breeding season and the time of year must be taken into account, since prostaglandins are administered during the breeding season, while other hormones such as progesterone, equine chorionic gonadotropin (eCG), human chorionic gonadotropin (HCG), pregnant mare serum gonadotropin (PMSG) are administered in the non-breeding period.

• Results, Discussions and Conclusions

- ✓ The hormonal treatments applied determine different manifestations in the female reproductive system depending on the functional state of the organs, but also on the general hormonal state of the animal.
- ✓ Also, the effectiveness of these hormonal treatments is closely linked to the health of the animal, the breed, the climatic conditions and the way the animals are raised on farms.
- ✓ At this time, it is considered that there is insufficient data on the mode of action of hormonal preparations, the identification of effective methods of inducing and synchronizing estrus in sheep in the non-breeding period represents an important direction of scientific research, but also a problem of interest for sheep breeding.

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