

RESEARCH REGARDING OUT OF SEASON MATING YEARLING ROVASI FEMALE USING ESTROUS INDUCTION

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Abstract

Rovasi breeders have big interest to obtain a better productivity on farm. Rovasi is a new sheep race formed by crossing Awassi with Tigaie. A tool for this are reproduction intensify by decreasing first mating age, and out off season mating. The aim of this research is to see that yearling Rovasi female can due mating out off season. The female use on this research has not less than 12 months old and a good condition for reproduction. Estrous was inducing using a usual progestative treatment. The result shows that 60% of yearlings have gestation installed.

Key words: Rovasi, progestative treatment, yearling female

INTRODUCTION

In Romania breeders have big problem with the absence of human resources from the sheep raising area, for that reason are more interested in a better productivity in the farm. Rovasi is a dairy sheep population formed by crossing Tigaie ewe with Awassi rams using recurrent backcrossing scheme. A tool to have a better productivity in a dairy sheep farm is to practice intensive reproduction. A reproduction particularity that can be use for a better productivity are early introduce for breeding of female yearlings and out of season breeding. That kind of research was made on dairy sheep in the world [1], [2], [3].

MATERIAL AND METHOD

This study was made on 27 heads of Rovasi yearlings that have 1 year old, raised in the Research Station for Sheep and Goat Farming from Bacau. The female yearlings involved in this study have a good body condition scored between 3 to 3.5 and a corporal body weight minimum of 70% from adult ewe body weight. For oestrus inductions out of season was used a progestative treatment based on intravaginal

sponges impregnated with 20 mg flugestone acetate which in combination with Pregnant Mare Serum Gonadotropin (PMSG) lead to oestrus induction and synchronization. The gestation diagnostic was made with an ultrasound pregnancy detector that determines pregnancy by locating amniotic fluid in the uterus at 40, 50, and 60 days after mating.

Data collected was proceeding after classical methodology and related in systematic tables.

RESULTS AND DISCUSIONS

The yearlings take in study was intravaginal examined to see if the vaginal development permits to introduce sponge without lesions. After that, seven yearlings were eliminated.

For the twenty yearlings was administrated intravaginal sponges impregnated with 20 mg flugestone.

After 14 days from sponge administration these was extract and administrate PMSG by intramuscular injection. After 2 days they have oestrus and all twenty yearlings were mated.

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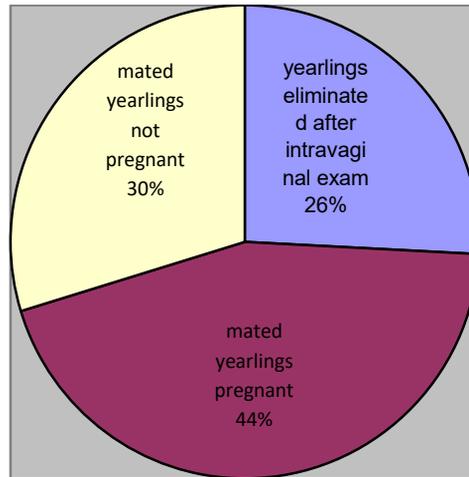


Fig. 1 Reproduction situation for the yearlings take in study

At 40, 50 and 60 days after mating was made gestation diagnostic for all twenty yearlings and only twelve (60%) had gestation installed and must mating in the second part of October.

From figure 1 we can see that 26% was eliminated after intravaginal exam that shows although yearlings have a good condition for reproduction and a good corporal development oestrus can't be induce using intravaginal causes from anatomically reason.

Being a new population of sheep this are the first study of that kind that was made on it but for another dairy races reproduction intensively is a tool for a better productivity. [2], [3].

CONCLUSION

From study results is obvious that on Rovasi sheep can have a intensive reproduction based on oestrus induction and synchronization. It is obvious that are individuals who can't be introduce in this kind of reproductive program from anatomically reason, but they can be use on reproduction traditionally at a natural oestrus.

Sixty percent from the mated yearlings is a good result considering the age of yearlings and out of season mating.

The farmers can select their yearlings after an intensive farming to introduce ewe

on breeding out of season and obtain production all year long.

In generally this new kind of sheep have good reproductive traits that can be improved by selection.

This kind of study on this population will be continue with a bigger number of sheep and appreciation for more udder traits because it is a big interest for a better productivity in the sheep farm.

REFERENCES

- [1] Abecia, J.A.; Forcada, F.; Gonzalez-Bulnes, A. Hormonal control of reproduction in small ruminants. *Anim. Reprod. Sci.* 2012, 130, 173–179. [CrossRef] [PubMed]
- [2] R. Bras. *Zootec.vol.42no.3Viçosa Mar.2013*: Short, medium or long-term hormonal treatments for induction of synchronized estrus and ovulation in Saanen goats during the nonbreeding season.
- [3] Francois Castonguay, Ph.D: La reproduction chez les ovins, Universite Lavale, Faculte des sciences de agriculture et de l'alimentation, edition Mars 2018.
- [4] Wildeus S. 2000. Current concepts in synchronization of estrus: sheep and goats. *J Anim Sci*, 77:1-14.