



## Effect of Enzymatic Supplement on Some Reproductive and Biological Parameters of Ossimi Sheep

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### Introduction

Ossimi sheep is the most popular among the Nile Valley and Delta breeds that show estrus activity throughout the year, though with less activity in spring. ZADO is a commercial exogenous enzymes mixture of cellulase, xylanase, alpha amylase and protease from an anaerobic bacterium. It has been shown to improve ruminal fermentation, N balance, nutrient digestibility and LW gain and feed conversion, as well as milk yield of different animals fed diets containing Egyptian by-product feeds.

### Objective

The current experiment was conducted to evaluate the effect of dietary supplementation of ZADO on the reproductive performance of Ossimi ewes.



### Fecundity %

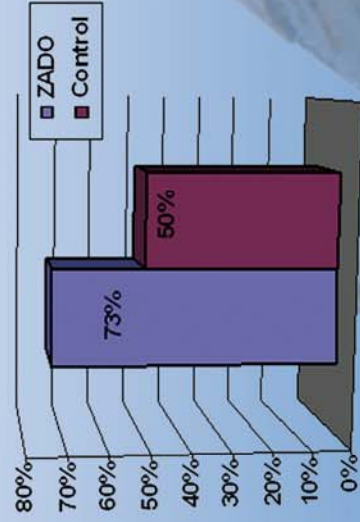


Fig.1. Fecundity percentage of Ossimi ewes treated with ZADO against control.

Fecundity % = the number of lambs born per lamb-ed ewe

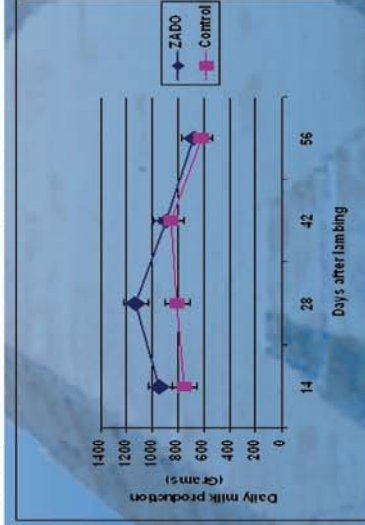


Fig.2. Milk production by Ossimi ewes fed ZADO or control rations.

### Methods

Two experiments were applied in this study.

Exp. I twenty eight, multiparous, non pregnant Ossimi ewes were equally assigned to two groups, group 1 fed ration supplemented ZADO (powder enzymatic additive) while group 2 fed ration with no additives and served as control.

All ewes were fed maintenance ration for one month (during June) followed by flushing ration for 5 weeks (2 weeks before and 3 weeks after ram introduction). Maintenance ration (900g/h/d) contained 300g wheat hay and 600g concentrate mixture.

The flushing ration was 1500g/h/d (500g wheat hay & 1000g concentrate mixture). ZADO (15g/h/d) started to be added with flushing rations. Fertile rams were introduced to ewes for two successive estrous cycles.

Exp. II twenty recently lamb-ed ewes were used with their offspring in this experiment. Ewes were equally divided into two groups, group 1 was supplied with 10g/h/d ZADO mixed with total ration, while group 2 served as control.

Data were analyzed as a completely randomized design using a General Linear Model procedure of SAS.

### Results

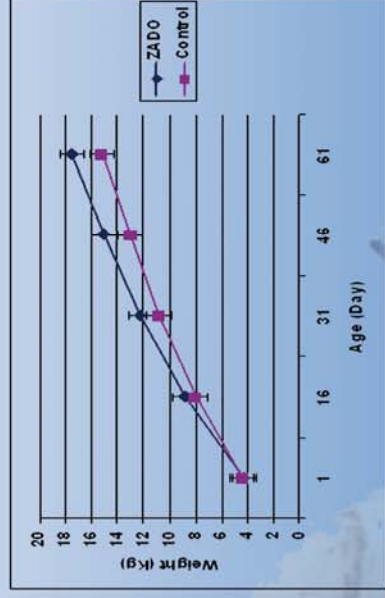


Fig.3. Effect of ZADO supplemented or control ration on lamb weight (kg) and average daily gain during two months (from birth to weaning).

## Conclusions

- 1 Treated ewes with ZADO could improve fecundity.
- 2 ZADO could improve milk production and preweaning lamb growth

More information

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