

RESEARCHES CONCERNING CRTAT AND CYSC BIO PREPARATIONS ON BOAR SPERMOGRAME INDEX

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Abstract

The researchers have been held on boar sperms of Landrace breed raised up at I.S. "Moldsuinhibrid". The biopreparations had been given as additions at the base rations in feeding of adults boars. The biopreparations administrations lasted during 50 days. The researches had shown that the studied biopreparations had increased the volume of ejaculation with 10%, the sperm concentration in ejaculation has been increased with 15%, the spermatozoa livability and capacity of sperms fertility with 12%.

Key words: biopreparations, sperm, boar, fertility, concentration, volume

INTRODUCTION

The success in applying of artificial insemination is determined by the knowledge of sperm cryo resistance features and mechanisms of semen cryoprotection. Therefore opportunity of the study and elaboration of effective procedures of increasing the sperm production while increasing the semen resistance in cryopreservation conditions, especially in critical periods of the year is welcomed.

The literature review (B. K. Милованов (1962), B. A. Hayk (1987, 1988, 1991, 2004) G. Darie (1999, 2004) and results of laboratory staff regarding positive effect of various bio preparations on spermatogramme in broodstock suggested the idea that these desiderata can be solved through the study of spermatogenesis.

MATERIAL AND METHOD

Researches have been held on boar sperm of Landrace breed maintained at IS "Moldsuinhibrid". Bio preparations were given as the addition of 4% in adult boars basic rations. Bio preparations dosing lasted 50 days.

The boar sperm has been collected by manual method within four days. Quantitative and qualitative assessment of

sperm has been appreciated using ISAS and Smile program.

Sow sowing was performed twice within 12 hours. Fecundity was appreciated after farrowing sows results.

RESULTS AND DISCUSSIONS

Experimental results on study of ejaculate volume are shown in Figure 1.

Data presented in figure 1 showed that at the beginning of experience the volume of the volume of semen ejaculation of boars included in the study was 230.06 ± 29.06 . After 50 days of administration of preparations Crtat and Cysc volume ejaculation has been increased and reached 247.64 ± 18.81 or had an increase of 17.58 ml.

Sperms motility showed an oscillation of 81.99 ± 1.85 to 86.11 at the beginning of experience and 1.39 at the end of experience. Experimental data are presented in Figure 2.

Study of the influence of Crtat and Cysc preparations introduced as additional supplement in the boars ration on sperm concentration (Figure 3) showed that sperm concentration at the beginning of experience was 0.18 mlrd / ml and at the end of experience sperm concentration increased up to 0.36 mlrd / ml, coefficient of variation is between 22.29 at the beginning and 20.95 at the end of experience.

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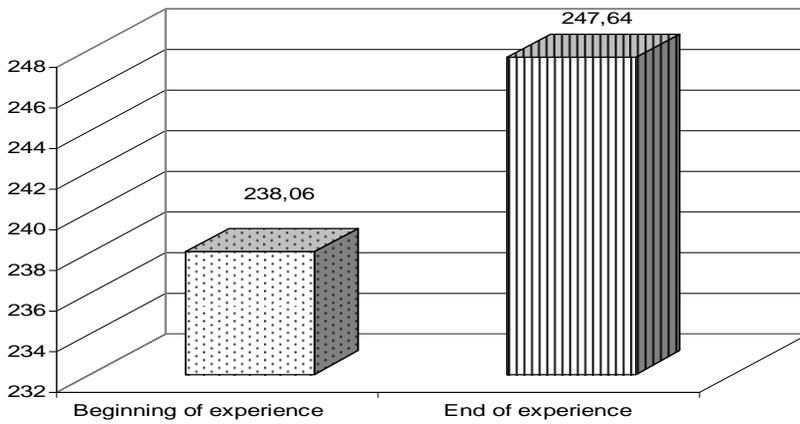


Figure 1 Ejaculate volume

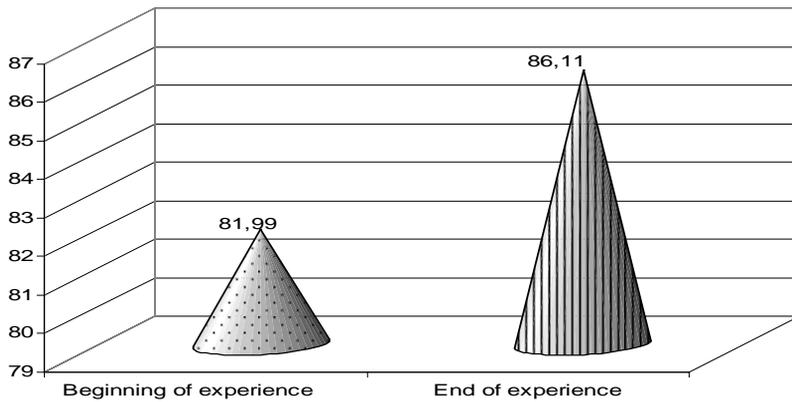


Figure 2 Sperms mobility, points

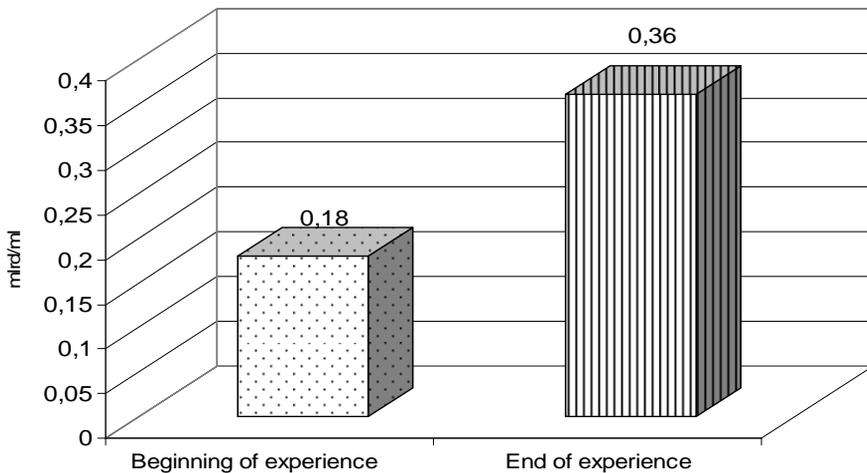
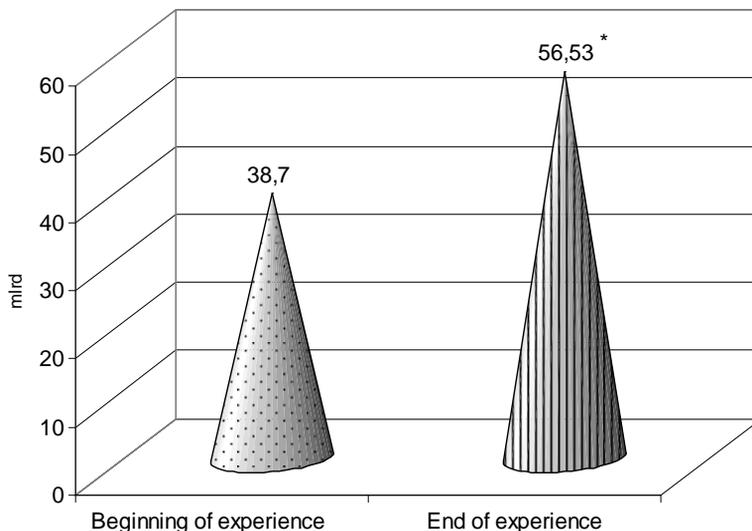


Figure 3 The sperm concentration, mlrd/ml

Simultaneously with the study of sperm concentration evaluated mlrd/ mlt here has been held the researches on the total number

of sperms obtained in ejaculate. The data are presented in figure 4.



*P< 0,001 comparative beginning of experience

Figure 4 The sperm concentration, mlrd

The data presented in figure 4 showed that at the beginning of experience the total number of sperm in the ejaculate was 38.7 ± 3.8 mlrd, and after 50 days of administrating the preparations Crat and Cysc the total

concentration of sperms increased to 56.53 ± 5.3 mlrd.

In the next of experience there has been studied the ability of sperm ability of sperm fecundity. Data are presented in figure 5.

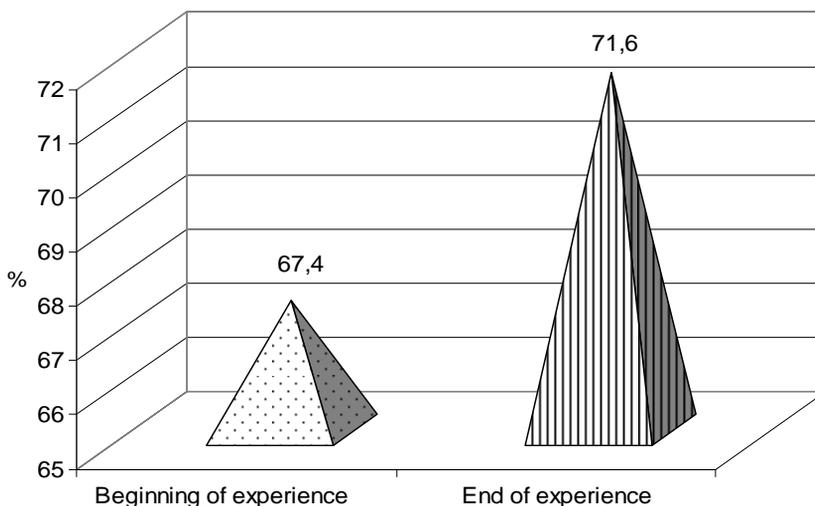


Figure 5 Sows fecundity, %

The data obtained in figure 5 showed that at the end experience the fertility rate was higher by 71.6% as at the beginning of experience and it was only 67.4%.

CONCLUSIONS

1. Dosing of bio preparations Crtat + Cysc in proportion of + 4% in basic ration has a positive effect on sperm indices, there was noticed a volume increase of 17.58 ml in the experimental group compared to the control group.

2. The sperm concentration in ejaculation increased from 56.53 mlrd in the experimental group compared to the control group by 38.7 mlrd.

3. Studying sperm mobility in ejaculation there has been observed an increase of 86.11% in the experimental group compared to 81.99% in the control group.

4. Sows fecundity after administration of preparations in ration showed an increase of 71.6% in the experimental group compared to the control group where it was only 67.4%.

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