

THE USE OF BIOLOGICALLY ACTIVE PREPARATIONS TO RAISE THE SPERM PRODUCTION QUALITY BULLS

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INTRODUCTION

Use of antioxidants in feeding of manufacturing bulls causes a particular interest. When feeding to manufacturing bulls of forages in which there are processes of oxidizing destruction to formation of peroxide there is a destruction of fat-soluble vitamins. It can be the prime cause of violation of integrity of cell membranes sperm and a spermatogenesis in general.

Taking into account it the imperative need in use of antioxidants, especially in the second half of the stall period appears. Now a big number of the substances possessing antioxidant properties is applied. Use of solutions of selenite of sodium and tocopheryl acetate has allowed to find out their influence on quantity and quality of sperm, and also to find an effective way of prevention of an alimentary form of impotence at manufacturing bulls during the spring and summer period.

Research and production experiment was made on Republican Center of livestock breeding JSC "ASIL TYLIK.". Four groups of manufacturing bulls have been created. Animals had the correct constitution, good fatness. The expressed deviations in the general condition of an organism of animals and manifestation of sexual frustration weren't noted.

Animals of control group received a forage on a diet. During experience and after experience in quantity and quality of sperm at them special changes has not occurred. The volume of a doublet ejaculate has decreased in comparison with basic data by 1, 2%, and after experience there was an insignificant increase by 4,8%. Concentration sperm during experience has increased only by 2,3%, and after experience this indicator was equal to background. The quantity sperm and received spermodose during and after experience has changed slightly. Percent live sperm and their activity met the requirements of the standard. The percent pathological sperm in time and after experience slightly exceeded admissible norms. The resistance indicator during experience has decreased on 2,2, and later has increased by 1,5% in comparison with background indicators. The survival sperm decreased with 2,3 during experience to 5,8% after experience. Animals of control group of experience had had in time a decrease by 17,4%, and to an early autumn - increase in dehydrogenase activity by 9,8%. The indicator of RN of sperm both during experience, and after his carrying out has not changed. At 50% of animals of control group in sperm leucocytes were noted and made from 1,5-2%.

To bulls of the 1st skilled group intramuscularly entered 20 ml of a trivit with an interval in seven days, and also hypodermically injected 8 ml 0,5% solution selenite of sodium and on 4 ml of 2% of solution of iodide of potassium with a twenty-day interval. Preparations were appointed from April to September inclusive. Sperm from bulls was received once a week on two ejaculate with an interval 10-15 minutes, using a false animal.

Introduction of selenite of sodium, trivit and iodide of potassium to manufacturing bulls has allowed to improving indicators of quality of sperm. The volume of a doublet ejaculate during experience hasn't changed, and after experience there was his increase by 11,5%. Concentration of sperm during experience had minor changes. However, after experience there was her increase by 20%. During experiences the quantity sperm has increased on 4,3, and after experience - 32,4%. Similar increase was noted also from quantity-received spermodose. The percent live sperm has increased by 2,2% only after the end of experience. Activity remained during the entire period of experience and didn't exceed $8 \pm 0,15$ grade.

During experience there was an increase in resistance sperm on 1,9 and after experience for 6,2%. At the same time increased survival sperm which has made during experience 8,3 and after experience 10,6%. Dehydrogenase activity during experience has decreased by 23,5%, and later has increased in comparison with background indicators by 9,8%. The percent of pathological forms sperm has decreased slightly and has made in time and after experience respectively 3,2 and 4,5%. The indicator of RN of sperm has increased during experience slightly, and after experience has made 3,4%.

To manufacturing bulls of the 2nd skilled group entered trivit, potassium iodide similarly with the first group and in addition - 1 ml of 10% of solution tocopheryl acetate.

At skilled animals of the 2nd group during experience of increase in volume of a doublet ejaculate hasn't occurred. This indicator made 9,5 ml. After experience increase has happened for 10,5%. Concentration sperm has increased during experiences on 12,5 and after experience by 19,3% that indicates the stimulating role of this scheme of application of biologically active preparations. Increase in quantity sperm and received spermodose has happened during experience on 12,4 and after experience for 29,5%. For 2,1% has occurred increases after experiences live sperm. Activity sperm during experience has increased by 1,3% while after experience this indicator was equal to background. Insignificant increases in resistance have been noted during experience and after experience which have made respectively 1,5 and 3,8%. Survival level sperm has increased during experiences on 5,1 and after experience for 10,8%. The indicator of absolute survival during experience and later, met the requirements of the standard. There was an increase of dehydrogenase activity sperm during experience on 34,2 and after experience for 24,6%. During experience there was an insignificant decrease in pathological forms sperm, and after experience this indicator has decreased by 5,8% in comparison with a background. Considerable changes of an indicator of RN of sperm both during experience, and after have not happened. At 50% of skilled animals, existence of leucocytes did not exceed 1%.

To bulls of the 3rd skilled group trivit, acetate, selenite of sodium and iodide of potassium entered tocopherol in the same quantities and frequency rate as animal to the first and second skilled groups. Application of the third scheme for improvement of quality of a spermoproduct at manufacturing bulls has exerted insignificant impact on quantity and quality of sperm.

There was an increase in volume and concentration as in time, and later. The volume of a doublet ejaculate has increased during experience on 18,1 and after experience by 36,3%. Concentration sperm has increased during experience on 10,2 and after carrying out experience for 23,5%. Were in correlative dependence on the volume ejaculate of an and concentration of sperm quantity sperm and received spermodose which increase has made during experience 17 and after experience 61,6%. The percent live and dead sperms met the requirements of the standard and did not exceed background indicators. Increase in activity sperms for 1,3% has

happened only during experience. After experience, this indicator became equal to background. Increase of resistance for 2,8% was noted only after experience. The survival sperms during experience has increased on 8,7, and after experience by 36,4%. There was at the same time an increase in an indicator of absolute survival during experience on 2,3 and after experience for 6,9%. During experience and after it indicators of dehydrogenase activity, respectively for 19,1 and 33,7% have improved. Decrease in pathological forms sperms was noted during experience on 0,9 and after experience of 7,0%. The offered complex of biologically active preparations has made the stimulating impact on sperm RN. There was an increase in this indicator during experience on 2,4 and after experience for 1,9%.

Analyzing the obtained data, we are convinced that at an intensive use of manufacturing bulls for the purpose of preservation of their high reproductive ability, along with balancing of diets, it is necessary to carry out injections of solutions of selenite of sodium, iodide of potassium and a trivit with the increased vitamin E dose due to acetate tocopherol addition.

Injections and feed additives of biologically active preparations promoted activization of a spermatogenesis, improvement of quality of sperm, increase of a sperm efficiency, decrease in percent of rejection of sperm, and also implementation of correction of reproductive ability of manufacturing bulls.