

## AGE AND INSEMINATION OF COWS

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**Introduction.** In dairy farming, animal reproduction is perhaps the most pressing problem. Herd reproduction is a complex production process that includes a set of organizational, economic, biological, zooveterinary and technological measures aimed at obtaining healthy offspring, its preservation, cultivation and formation of an array of animals, which are characterized by high milk productivity and fertility. Practical experience proves that timely insemination of cows after calving has economic significance and biological feasibility. Most scientists believe that the largest number of inseminations is found at the age of six and seven years, and the smallest - at the age of three to four years [1-4]. Due to the increased relevance of this issue, the aim of our study was to identify the number of inseminations of cows depending on their age.

**Materials and methods.** The research was carried out in the conditions of LLC «Lelyakivske», Poltava region, on adult cows of the red steppe breed. To establish the relationship between the number of inseminations and the age of cows, materials of production and zootechnical accounting on the farm were used, which provided information on the productivity of production groups and the sex-age structure of the herd.

**Results.** It should be noted that in dairy farming there is a pattern: the longer the period of economic use of cows, the higher their lifetime productivity, more offspring, and, consequently, higher economic efficiency of animals. It is established that the highest productivity of cows of the absolute majority of breeds bred in Ukraine is shown on 4-5 lactations. The data of the analysis of the structure of the herd of the basic economy shows that the largest share are animals of three and four years of age - 65% of the total population, five years of age - 17%, six years - 15%, and the least in the herd of animals of seven years - 3%. Research data show that timely insemination of cows after calving has economic and biological feasibility [2, 3, 4]. However, experts do not recommend inseminating highly productive cows in the first month after calving, as this leads to overfeeding. Based on our research, it is established that the age of cows significantly affects the number of inseminations. Analysis of the dependence of the number of inseminations of cows on age shows that with increasing age of cows increases the number of inseminations.

Thus, at the age of three, the number of inseminations was 2.0, at the age of four - 2.2, at the age of five - 2.4, at the age of six - 3.0, and at the age of seven it increased to 3.6. The probability of the difference was found between the third and sixth year of cows - 1.0

insemination, the third and seventh - 1.6, the fourth and seventh - 1.4, the fifth and sixth - 1.0 insemination and is ( $p \leq 0.05$ ).

**Conclusions.**Based on research, it is established that the age of cows significantly affects the number of their inseminations. The increase in insemination with the age of cows is obviously due to the following reasons: with age, the number of animals with postpartum complications increases, because animals are not always provided with timely assistance in childbirth complications, resulting in metritis; with age, the productivity of cows increases, which, in turn, is known to have a negative correlation with reproductive traits. Therefore, farms must conduct research on the reproduction of a herd of dairy cows in order to increase the economic efficiency of milk production, which is the task of our scientific work in the future.

#### References

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