

THE RELATIONSHIP BETWEEN REPRODUCTION INDICATORS AND THE STRUCTURE OF FOOD RATION, IN THE DAIRY COWS FARMS

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Abstract

There is always a correlation between the exact feeding and fertility indicators [1]. Nutrition affects the fertility of the cows, especially during the first three months after calving [2, 6]. In almost 50 % of cases indicators of hypo-fertility depend from dietary mistakes and this was and is a current topic of increasing interest for specialists and farmers [7]. The study aims to clarify the relationship between food ration structure and reproduction indicators, in concrete breeding conditions in cows' farms for milk production.

During the period March 2015 - March 2016, relationship between reproduction indicators and the structure of feed rations in five cows' farm, with each over 25 cows were studied. The indicators of pre-service period (PSP), days open (DO) and the average index of copulation (IC), were confronted with mineral content of elements calcium (Ca), phosphor (P) and magnesium (Mg). The reproduction indicators were calculated with the standard methods, meanwhile the mineral content elements in the food rations were calculated according to McDonald [7]. The data obtained were processed statistically with ANOVA method and were prepared graphs of linear regression.

After grouping and statistical development, gained results indicated that there is a relationship between the indicators we were studying. The strength relationships was found between open days (OD) and copulation index (IC) with the level of Ca in the food ration ($r = 0.840$ and $r = 0.832$ respectively). Pre service period seems to be unaffected from the composition and structure of feed rations. Relationships which have to be evaluated too, are between the level of P with days open (DO) and copulation index (IC) ($r = - 0.397$ and $r = - 0.454$ respectively). The results are indicating that levels of Mg seems to be insignificant for the days open indicator and the pre service period ($r = 0.124$ and $r = - 0.211$). Our data are approximately the same with the conclusions of other authors.

In cows feeding, the structure and the composition of the food rations are the most estimated elements. From the indicators of the structure of food ration in cows, seems that a stronger impact in reproduction indicators has the content of CA and P. Pre-service period (PSP) seems to be not affected by the structure and composition of the food ration. The composition and content of mineral elements in the food ration can be used for prognostic purposes.

Key words: Days open, Pre-service period, Index of copulation, Ca, P, M.