QUALITY CONTROL OF THE FODDER FOR CATTLE BY DETERMINATION OF Ca/P RATIO AND COMPARISON WITH LITERATURE DATA

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Introduction

Considering the importance of Ca/P ratio in certain biochemical processes and evidenced influence on reproductive abilities of highly productive animals, and also because of frequent disturbances of Ca/P ratio in nutrition, we wished for the purpose of this work, to control the quality of fodders for cattle, by determination of Ca/P ratio and comparing of obtained values with the literature data (1, 2, 3, 4), which were recommended for this ratio.

Material and methods

Determination of Ca/P ratio was made out in 18 samples of fodder's for cattle: in 8 samples (for dairy cows) and 10 samples (for older calves). The selection of samples was undertaken according to method of free sampling. Ca and P were determined in the solution, after rending of ashes by HCl acid. Phosphorus was determined by use of spectro-photometric method, and calcium by atomic absorption spectrometric method. For P determination we used the spectrophotometer (SP-600, series 2, Pye Unicam), and for Ca determination atomic absorber (SP 90A, series 2, Pye Unicam).

Results and discussion

Firstly may be concluded from the analysis that large variations in values of Ca/P were noted, in cattle fodder's from 0.26 (min.) to 2.56 (max.), as the consequence of variations in values of calcium (1.10 - 11.57 g/kg) and phosphorus (2.91 - 8.86 g/kg) of fodder's. Literature data (1, 2, 3, 4) explains that Ca/P ratio should be from 1.5 to 2.1 in cattle fodder, we may conclude that 11 samples from totally 18 (61.1%) do not meet the criterion for Ca/P ratio. We may conclude that the market was supplied with non qualitative fodder's for cattle, when this two important elements are considered.

References