

HPLC ANALYSIS OF VITAMIN B₁₂ IN FODDER AND GOAT MILK

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Abstract: Filling the assessment of fodder value by specifying the content of vitamins which has to meet the multilateral requirements of the body is one of the main issues in the study of improving the goat milk with vitamin B₁₂. In this research raw goat milk enhanced with vitamin B₁₂ supplements is analysed and the content in vitamin B₁₂ is measured by HPLC with diode-array detection by using a Shimadzu HPLC system. Two methods for milk samples processing for proteins precipitation and vitamin B₁₂ extraction are presented, using trichloroacetic acid and sulphuric acid. The results indicate that the chromatographic method is adequate for determining vitamin B₁₂ in goat milk enhanced with vitamin B₁₂ after the protein precipitation by acid hydrolysis with trichloroacetic acid or sulphuric acid, both acid treatments giving good results. The addition of the yeast *Saccharomyces carlsbergensis* in goat forage give an increased content of vitamin B₁₂ in milk.

Key words: milk, goat, supplements, vitamin B₁₂

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