

EFFECTS OF FERTILIZATION ON POLYPHENOLS CONTENT IN SPRING OF FORAGES FROM PERMANENT GRASSLAND BY PC&CA

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Abstract

In this paper the aim was to try that the PC&CA (Principal Components and Classification Analysis) can be an important tool to study the effects of fertilization on polyphenols content of forages. The experimental field (permanent grassland) was fertilized organic (fermented sheep manure) and/or NPK mineral since 2003, near Grădinari (Caraș-Severin District), in a hill region of Banat County, with 10.4oC average temperature and Calcic Luvisol. The samples were harvested in spring and gravimetrically was established the matrix of floristic composition. The determination of polyphenols contents was made in conformity to Folin and Ciocalteu method, using UV-VIS SPECORD 205 spectrophotometer. The highest polyphenols content was identified in forages from unfertilized variant (136 μ M gallic acid/g). The PC&CA distribution of forages samples was performed with Statistica-6 software and shows that the polyphenols content depends by the substances flows generated by applying organic and/or mineral fertilizers.

Key words: feed, Principal Components and Classification Analysis, animal's nutrition, antioxidant activity

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