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p-COUMARIC ACID CONTENT IN SWEET PEPPER UNDER FARMING METHODS

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Abstract

Intensive agriculture has become an indispensable practice because it has to meet the needs of increasingly large yields to feed the population of the planet. In recent years, tough challenges to increase the efficiency of bioconversion were performed, since the conventional system has negative impacts on the environment, especially on health products by low intake in nutrients.

In this context, the aim of this study is to show the effects of fertilization measures, which improve the quality of sweet peppers, rich in phenolic compounds, especially *p*-coumaric acid (PCA). The trials were carried out in the years 2014-2015, organized in a split-plot design with four pepper cultivars, fertilized with three methods (organic, chemical, microbiological), compared to a control sample.

The highest content of PCA was obtained under microorganism fertilization; it was ranged up to 0.0487 mg GAE/100 g FW. In the control sample and chemically fertilized versions, PCA was not detected, or was very low. In many trials the trend is that regardless of variety, microorganisms and organic fertilized increased the dry matter content than control.

Key words: anti-aging, fertilizers, *p*-coumaric, phenolics, sweet pepper

Received: February, 2016; *Revised final:* August, 2016; *Accepted:* August, 2016
