

**STUDY OF EFFECTS OF A COMPLEX FERTILIZER
AND A BIOSTIMULATOR ON MACRONUTRIENT
CONTENT OF LEAF AND FRUIT QUALITY ON SWEET
CHERRY (*Prunus avium*)**

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In this study we are partly focusing on consumer acceptance of fruit, like fruit cracking, weight and flavours, and maturation, fruit density and content of nutrients which are underlie consumer acceptance, and important equally to the growers and marketers.

The study was conducted during 2005–2006 in West Hungary on cv. 'Germersdorfi 3' grafted on *Prunus mahaleb* rootstock. Trees were planted in the spring of 1999. Trees spaced 7 x 5 m, and growing in a calcareous chernozem soil at Siófok in West-Hungary. Beside control treatment, Benefit PZ as biostimulator and Damisol Kondi as complex fertilizer were applied to investigate the effects of these chemicals on the macronutrient content of leaf and the fruit quality. Soil, plant (leaf) and fruit samples were collected in 2005 and 2006. For examinations of fruit quality, fruit cracking, fruit weight, fruit density, maturity and content of soluble solids and sugars was investigated.

The seasonal patterns of examined nutrients of leaf were not showed significant differences between the control and the applied treatments. Results of leaf analysis were in good correlation in results of soil analysis. Moreover, both treatments increased the N, P and K content of leaf significantly.

Applied treatments increased the fruit weight, density and maturity but decreased the degree of fruit cracking compared to the control. Regarding soluble solids and monosaccharides significantly lower value was obtained applying Benefit PZ, while there was not difference between the control and the Damisol treatment. Lower soluble solids content in Benefit treatment is correlation with the measured higher fruit weight in this treatment. Our results can be explained by the higher fruit weight and size which can be reached by applying biostimulator but it causes more intensive cell-division and reproduction simultaneously which has a dilute effect on the inner parameters.