



HRVATSKO
TLOZNANSTVENO
DRUŠTVO
CROATIAN
SOCIETY OF
SOIL SCIENCE



u suradnji sa
in cooperation with:

INTERNATIONAL
UNION OF
SOIL SCIENCE
EUROPEAN
CONFEDERATION OF
SOIL SCIENCE SOCIETIES



organizira:
organizes:

X. KONGRES
HRVATSKOG
TLOZNANSTVENOG
DRUŠTVA
X. CONGRESS OF
CROATIAN
SOCIETY OF
SOIL SCIENCE

s međunarodnim sudjelovanjem
With international participation:

SAŽECI
SUMMARIES

ULOGE TLA
U OKOLIŠU
SOIL
FUNCTIONS IN
THE ENVIRONMENT

ŠIBENIK
14-17. lipanj 2006.
June 14-17. 2006

SPATIAL DISTRIBUTION PATTERNS OF SOIL MICROBIAL BIOMASS CARBON WITHIN THE PASTURE

Tayfun ASKIN¹ and Ridvan KIZILKAYA²

Corresponding author: Assistant Professor, Karadeniz Technical University, of

¹ *Agricultural Faculty, Department of Soil Science, 52200, Ordu/TURKEY,*

² *Ondokuz Mayıs University, Agricultural Faculty, Department of Soil Science, 55139, Samsun, TURKEY*

e-mail: tayfuna@ktu.edu.tr; ridvank@omu.edu.tr

The purpose of this study was to assess the spatial variability of the soil microbial biomass carbon (C_{mic}), in pasture topsoils using geostatistics. C_{mic} along a transect in a 1.35-ha pasture was determined using 77 soil samples from the upper 20 cm of soil varied from 547.7 to 1123.8 $\mu\text{g C g}^{-1}\text{soil}$. The exponential model fits the best semivariogram model for C_{mic} and exhibited spatial dependence with range of influence of approximately 294.1 m.

Keywords: Spatial variability; Soil microbial biomass carbon; Kriging; Pasture