Igor Yu. VINOKUROV, Leonid I. ILJIN

STABILITY OF AGROECOSYSTEMS
DETERMINED WITH BIOGEOCHEMICAL PARAMETERS

Key words: agroecosystems, landscape units, landscapes, nitrification constants, soil catenas

The paper presents biogeochemical parameterization of landscapes based on nitrification constants typical for particular elementary landscape units (ELU). It was demonstrated that the principle of negative feedback may be used to describe self-control in soil systems in flat areas with the streams of nitrate-nitrogen. There was a correlation (system approach) between nitrate content and nitrification constants within ELU. A systematic-structural approach, which considers spatial arrangement of ELU, was used with respect to local landscape catenas (as curvilinear soil systems). The problem of discrepancy between flat-plan soil systems and curvilinear soil systems is discussed.