Ecopedological researches concerning the anthropic impact on agricultural ecosystems from lower Prut river meadow

CONTOMAN Maria - Universitatea "Dunarea de Jos" Galati
MURARIU Mariea, MANEA Mirela Elena - O.J.S.P.A, Galati

The ecopedological researches done in the Lower Prut River area demonstrate both quantitatively and qualitatively two major characteristics of soils in this area, namely: the trophic potential and zone and local ecological characteristics. These researches took place in the particle ecosystems of the Lower Brates ecopedotope, belonging to the lower Prut Meadow, at the confluence of the river Prut with the Danube and it was born from the former Brates Lake and riverside areas drainages. The activities of land improvement performed in the Lower Brates area have determined major changes in vegetation. Originally there were vegetation species characteristic to floodable holms , later a steppe vegetation replaced it. At present hydrophilic and hygrophilous plant species are to be found only along drainage canals.
Soil profiles have been studied in the field, while their main physical, chemical and biological traces were determined in the lab which allowed the elaboration of ecological records/files, the values of soil trophic indicators and ecological soil diagnosis. In order to fill in the ecological files 20 ecological factors and determinatives have been studied , quantitatively and qualitatively. The data resulted from this complex analysis of all these factors showed that they might influence soil trophic potential under study in a positive or negative direction.
The meadows are formed on alluvial deposits made up of gravel and sands which were covered in time by sandy-clay formations. Meadow biotope soils are generally regosols followed by hydromorphic soils. They are generally used as pasture lands or natural hay-fields , as well as arable lands.
The main negative ecological factors are: the dry season, extreme drought, excessive grazing, excessive humidity. The effects of these negative factors are: soil settling, ruderalization of the pasture , reduction of flower biodiversity and soil biological activity, salinization. The negative ecological impact of all these factors' action lead to an inconsistent use of the trophic potential in the praticle ecosystems of the Lower Prut Meadow.