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**MAIN TASKS OF UKRAINIAN–HUNGARIAN
SCIENTIFIC COOPERATION JOINT PROJECT FOR 2009–2010 YEARS**

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**ОСНОВНЫЕ ЗАДАЧИ СОВМЕСТНОГО НАУЧНОГО
УКРАИНО-ВЕНГЕРСКОГО ПРОЕКТА НА 2009–2010 ГГ.**

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One of the most important research fields of Dnipropetrovsk National University and University of Debrecen Centre of Agricultural Sciences is investigations of microbiological and biochemical processes taking place in soils of Ukraine and Hungary, successions of plant associations and zoocenosis and examination of soils fertility by biochemical, microbiological and protozoological methods. Both collectives of scientists investigate the effects of the anthropogenic loading and influence of the chernozems intensive agricultural use (use of fertilizers, meliorants and other agricultural methods) on formation of soil microorganisms steady cenosis. Researchers are utilizing both similar and different methods of researches, which needing harmonization. In addition, on a project is foreseen the research of different anthropogenous effects on chernozems, determination of which by different methods in three establishments will be extraordinarily productive and will give more important scientific and practical information.

Results, expected to be achieved. Effect of different level anthropogenic loading on the chernozems microbial and protozoological associations will be found. This result will be useful for preservation and improvement of fertility as bases of the rational and effective use of soils and increases of the chernozems agricultural productivity. Will have been set the features of basic biophilic elements biochemical transformation and mobilizations and developed measures for intensifications of processes of mobilization the most essential basic elements of plants feed. Will be determined the dominant plant associations of transformed soils as criteria of ecosystems ecological state.

Will have been appraised the possibility of the most informing microbiological and biochemical criteria use of plants material well-being by nourishing elements. Will have been conducted the estimation of ecological safety of technologies which are used in the agroindustrial production, on the basis of the got results of dangerous factors influencing on microbiological and biochemical processes which take place in chernozems. It will have been set the most informing protozoological, microbiological and biochemical criteria for use in national systems of the soils crisis monitoring. As a result of project implementation in two countries – Ukraine and Hungary can be attaining the maximal increase of efficiency of chernozems use with the increase of biological and agricultural value.