

## DEVELOPMENT OF THE ECOLOGICAL FERTILISATION TECHNOLOGIES BY IMPLEMENTING A NEW MANURE SPREADER

*Research Project no.19 /2005 of Research for Excellency Programme (CEEX-AGRAL)*

*Acronym: EP (Ecological Products)*

Taking into account the general concern at worldwide level on health protection, this project intends to prepare and implement ecological soil fertilization technologies, aiming to improve its fertility, and also aiming to obtain natural products, without chemical compounds, through an improved quality and integrity of the food and beverage chain, that is, globally speaking, the improvement of food chain integrity is sought, thus having a favorable impact on the maintenance of the users' health condition. The project may be considered within the scope FP7, „Key Action 1: Food, Nutrition & Health”, that aims to a better understanding of the requirements related to consumption and the assurance of health, safety and high-quality food. Among the priority scientific fields for such integrated technological platforms it is obvious that this project is to be considered within such fields that support a sustainable development: biotechnologies in agricultural and food industry. Through its goals this theme is to be considered within the context of platform PT.19-Plants for the future.

The research project has been conceived in the framework of the CEEX Research for Excellency Programme of the Romanian Ministry of Education

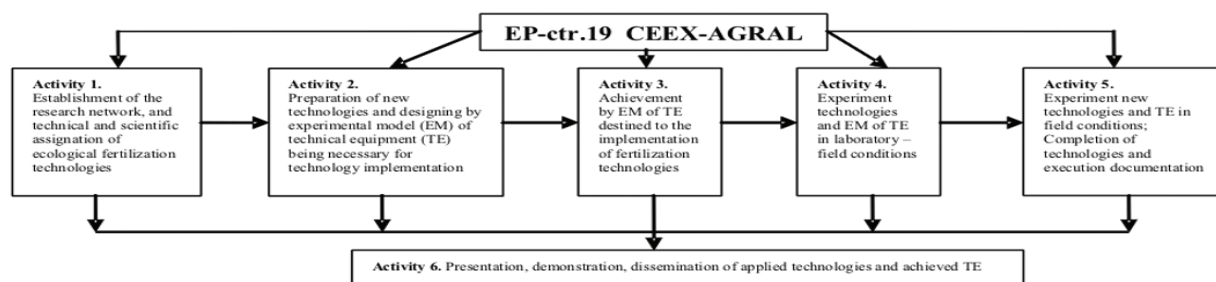
The activities comprised in this project are illustrated in the scheme below

By **preparation and application of ecological fertilization technologies** the following results can be obtained:

- obtain natural products that should not affect human health;
- increased volume and quality of the agricultural production;
- mitigation of environment pollution by means of using, by all means, manure, gradually reducing the use of chemical fertilizers and making longer in this way the life expectancy of earth's inhabitants;
- restore the soil biological potential and implicitly an increased production per hectare by about 30%;
- restore the flora and fauna balance;
- increase the chances for agricultural products to be promoted for export through the compliance with EU regulations.

**The achievement of TE as required to implement the ecological fertilization technologies** will lead to the following favorable results:

- reduction in soil setting through low pressure tyre solutions;



and Research (Module 1), by a consortium lead by the National Institute of Research-Development for Machines and Installations Designed to Agriculture and Food Industry – INMA Bucharest which has as partners *Politehnica* University of Bucharest, *Transilvania* University of Brasov, National Institute of Research-Development for Fine Mechanics - INCDMF Bucharest, National Institute of Research for Hydraulics and Pneumatics - INOE 2000 IHP Bucharest.

**The main objective** of this theme is constituted by the preparation and promotion of fertilization technologies with organic products as well as the achievement and promotion of a technical equipment (TE) that are destined to the application of fertilization eco-technologies, to assure a food chain that is favorable to maintaining the users' health, ensure a better soil biological potential and environment protection as well as the participation in future in European research and development programs.

- diversify TE range destined to manure fertilization from the Romanian market;
- achievement of a higher mechanization for manure transport and administration by 60% and reduction of the physical effort by 80%;
- mincing degree of the spread material in accordance with the required agro-technical norms;
- a 60 % shorter time for manure spreading and observance of the optimum period of agricultural works performance;
- elimination of risk factors on labour safety during the operation of agricultural technical equipment.

For more information, please visit the project website:  
[http://www.inma.ro/pag\\_wb\\_eng/Popa%20Lucretia/WEB-contr\\_19.htm](http://www.inma.ro/pag_wb_eng/Popa%20Lucretia/WEB-contr_19.htm)

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