PROFILE

INSTITUTE OF PLANT GROWING AND SOIL SCIENCE, NATIONAL AGRICULTURE UNIVERSITY OF UKRAINE

National Agriculture University of Ukraine is one of the leading institutes in the field of food, agriculture and land management within Ukraine. Our Working group (researches and experts) represents **Institute of Plant Growing and Soil Science.**

We would like to try to establish scientific cooperation between our University and research Institutions abroad. One of the best ways is to try to apply for the Large Integrated Project within the Framework Program 7 (FP7). You may also know, that the First Call for Proposals was published at the Cordis web-page at 22 December (http://cordis.europa.eu/fp7/home_en.html). As it was written FP7 is "The EU's largest ever funding programme for research and technological development".

One of the calls, related to "food, agriculture and biotechnology" could be linked at http://cordis.europa.eu/fp7/dc/index.cfm?fuseaction=UserSite.CooperationDetailsCallPage&call_id=16

The dead line for submitting proposals is 02 May 2007, so we are pressed of time.

In attachement you will find the package of all essential documents, I have downloaded from the site.

As far as I can guess, the first thing to start with is to find the appropriate "thematic priority" in the list of all those "activities", and to write a good project, which fit this priority in the best way, and then apply via the web to the Brussel.

I have studied some of the documents and have picked up some priorities appropriate for writing a proposal.

We are specifically looking for a European Union Framework Program 7 (FP7) consortium to join on the Working program topic:

Food, Agriculture, Biotechnology (FAB)
KBBE-2007-1-2007-1-4-11: Assessing the impact of Rural Development policies (including Leader)
Call: FP7- KBBE-2007-1

Food (including seafood), health and well being – Large collaborative projects and Networks of Excellence – 32, 5 ml evro;

Let's try to apply for the large integrated project, where one of the collaborators would be you, another one – National Agricultural University of Ukraine (I can guarantee you the "green light" from my side) and we can to this

list any other interested party you know (the minimum amount of partners is 3-4)!!!!

KBBE-2007-1-4-11: Assessing the impact of Rural Development policies (including Leader)
Call: FP7-KBBE-2007-1
This project will assess the economic, social and environmental impact of rural development programmes currently adopted for the period 2007 to 2013. The work will focus on the EU priorities defined in the Strategic Guidelines for rural development. These include the competitiveness of the agricultural and forestry sectors, knowledge transfer and innovation, biodiversity and preservation of high nature value farming and forestry systems, water, and climate change, the creation of employment opportunities in the fields of diversification and quality of life, improving governance and mobilising the endogenous development potential of rural areas. The research will focus on the key areas of expenditure and will be grounded in the approach defined by the Common Monitoring and Evaluation Framework established in the rural development regulation.
Funding scheme: Small collaborative project
Expected impact: The project results will help understand the contribution of rural development programmes to EU priorities and feed into the development of the next generation of rural development policies, leading to more effective targeting of measures and use of resources.

I think these notes could be extended to the hundreds of pages of the detailed project if you could help in finding interested experts from you side.

I think we should at least try to do something for it realization. What do you think?

We would be grateful for information about this subject. Any other possibility for collaboration would be also welcome.

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There are two Institutes from our side wishing to take part in this program:
- Institute of Plant-Growing and Soil Science;
- Institute of Land Reclamation and Hydraulic Engineering.

Our researches are fulfilled on the base of big research stations and laboratories located in all regions of Ukraine. So, many lows, standards and recommendations in Ukraine were issued under our participation:
- Law of Ukraine "About Land-Reclamation";

- Water Codex of Ukraine and Resolutions of Cabinet Ministers of Ukraine such as:

  - from 30.03.1988 № 391 "Statute about the State System Environmental Monitoring";
  - from 20.07.1996 № 815 "The Order of the State Water Monitoring Realization".

- Principles of assessment and prognoses of ecological-ameliorative state of lands and sustainable agriculture, Kyiv, State committee of water management, 2002, 147 p.
- Management of ecology –ameliorative monitoring, Kyiv, State committee of water management, 2002, 66 p.

The list of some EU projects and others forms of international collaborations in which Plant Growing and Soil Science took part in 2000-2006:

- TEMPUS SM_SCM-T031A05-2005 Project Development of a Quality Assurance System at Ukrainian Universities (DASAU).
- Management of agricultural chemicals remains and neutralization of useless pesticides in Cherkassy and Lviv regions.
- German and Ukrainian project of agricultural development and investments attraction in the frameworks of the Transform program.
- „Development of cultivation technologies of Hericiaceae species" with WESER-CHAMPIGNON, Germany.
- "Metabolisation of glucosidcarbamats and phenoxazinones through microorganisms" with Institute of agricultural botany, University of Bonn (Germany).
- TEMPUS-TACIS Project - "From soil to consumer", jointly with Ghent University, Belgium and Humboldt University, Germany.
- "Drip irrigations in greenhouses", in cooperation with "Netafim", Israel.
- "Development of sorts, hybrids and technologies of crops, fruits and vegetables" jointly with Zhedzyan agricultural academy of China.

List of publications in 2006 (more than 200):

- 1. Schulz M., Knop M., Kant S., Sicker D., Voloshchuk N., Gryganski A. Detoxification of allelochemicals – the case of benzoxazolin-2(3H)-one BOA // "Allelopathy: A Physiological Process with Ecological Implications" / Eds. M.J. Reigosa, N. Pedrol, L. Gonzalez. – The Netherlands, Springer, 2006: 157-170.
- S.Kalenska, V.Kalenskyy, V.Saiko. Influence of the technologies of growth on the productivity of cereals in Ukraine, Biblioteca fragmenta agronomica. IX ESA Congress , 2006 – Warszaw.

- Starodubtsev V.M. Process of salinization and desertification in the river basins of the central Asia. Urumchi, 2006, China.
- I.Voytsekhivskyy. Influence of conditions of cultivation on the contents of some valuable substances in eggplant grown in conditions of the Ukraine, 2006, 10-14 September. European society for new methods in agriculture research XXXIV Annual ESNA Meeting. IASI-ROMANIA.
- R.M.Melnik, S.V.Pakhovchyshyn, N.S.Pivovarova et. all. "Rheological study of sol-gel transition in the thyxotropic systems: experimental study and computer simulation". IV International conference "Interfaces against pollution", Granada. Spaine, AP- 2006.
- I.D.Sytnik, O.L.Klyachenko. Lines Rape (Brassia napus L.) to Stressful Factors. Nova Sciense, New – York, 2006.
- Allelopathy - Detoxification of allelochemicals - the case of benzoxazolinon-2(2H)-one BOA. Springer.- P. 157-170.2006.
- Kirichok, O.Tonkha, O. Bezkrovna, Ghu Si Yui. European Soil Science. Soil formation in coal mine waste dumps under protective-decorative forestry in Donetsk coal basin L.2006.

Building up of joint projects and carrying out researches after directions:

- **Water and Land Management:**
  - remote sensing of agrosphere;
  - phytoremediation of soils and reduction of man-caused trouble in agrolandscapes;
  - reproduction of soil organic matter and soil fertility;
  - bioconversion of organic wastes and creating new kinds of fertilizers;
  - to organize joint stationary scientific field and laboratory experiences;
  - to carry out the soil-ecological monitoring of landscapes;
  - investigation of soils and development of recommendations on their use under crop growing;
  - integrated management and sustainable use of ameliorative lands;
  - using technologies of drop irrigation and sprinkling-machines in plant-growing, horticulture, viticulture and greenhouses of EU/ Ukraine;

- **Plant Science:**
  - studying of biology and technologies of: sorghum, buckwheat, millet, sunflower, barley, ricin, mustard, sesame, safflower, perilla.
  - creation of new varieties and hybrids of crops, vegetables, fruits and berries for fields, greenhouses and biofuel;
  - identification and certification of sorts and hybrids of crops and vegetables;
  - preparation to the import of seed and planting stock materials of fruits, vegetables, field and tilled crops adapted to the soil-climatic conditions in Europe and handing technologies and recommendations over;
  - scientific substantiation and developing resource-saving technologies of

crops for different Regions of EU/Ukraine;
- carrying out economy-biological and pharmacological estimation of mushrooms and development of technologies on their growing.

- **Plant Protection:**
  - development the systems of integrated plant protection against to pests and diseases;
  - development of methods: selection and mass reproduction of entomophagies;
  - creation the data bank of gene pool of local population and species of useful insects in EU and Ukraine.

- **Plant Processing and Storage:**
  - Presenting technologies and recommendations for plant processing:
    - receiving of canned goods;
    - organization of operations: salting, pickling, thermo sterilization of fruits and vegetables at processing enterprises.
  - Providing and organization technologies of after-harvesting treatment and plant storage.

Personnel of the Institute:

Members of staff – 287

Among of them:
- Educational-Scientific Officials – 146
- Technical and Engineering Employees - 141

Research activities are carried out on the base of:
- 4 research stations;
- 15 problem laboratories;
- 6 certificated scientific laboratories;
- 16 institutes – partners;
- 22 experimental plots of lands.

There are 93 scientific projects are implemented on the base of our Institute:

36 - Ministry of Agricultural Policy,
3 - Ministry of Science and Education,
33 – Cabinet Council of Ukraine,
21 – Farmers and Agro-industrial Complexes.

The social - ecological changes are contemplated in connections with politic and economic transformations in Ukraine for the last decade. Agro-industrial complex of rural villages and small towns was reorganized for owners. Sometimes it causes many damages. Because some buildings and engineering structures as: fertilizer and pest-killers' storages, enterprises, main channels, sluices, gathering

ponds and other - until now are remained in a public domain, and did not acquire a new proprietor. They aren't financed and controlled by local authorities also. It may case next damages, which could make after-effects on European countries. Current importance this situation obtained in irrigated – drained lands in the frame of river basins. The drained and irrigated lands are mainly used for the rural - economic purposes (pastures, haymaking, growing of crops, vegetable and forage cultures).

Consequently in Ukraine, in our point of view, there are the following problems which concerned with the use ameliorative - drained constructions:

• No determined proprietor of agro-industrial engineering buildings.
• Annually monitoring dates is absent which would show the ecological and socio-economic consequences of using fen lands and drained hydrotechnical constructions before and after carrying out politico-economic reforms in Ukraine.
• There is the problem of introduction institutional innovation which maintained and improved the socio-economic state of citizens which live on this locality.

I would be grateful if you can send information about this. Any other possibility for collaboration would be also welcome. We have had very good and successful collaboration with:

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Wageningen University
Nederland
www.wu.nl/msc

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