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BIODIVERSITY AFTER THE CHERNOBYL ACCIDENT

PART I.

2016

The scientific proceedings of the International network AgroBio*Net*

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The scientific proceedings present the results of research and educational institutions and experts involved in the international network **AgroBio*Net*** oriented for the realization of international research, education and development program entitled "Agrobiodiversity for improving nutrition, health, and life quality". Also other Ukrainian institutions, which gained serious information of Chernobyl accident and its influence on citizen health and on environment.

Also, in this proceedings are presented results of research projects that are supported by the Operational Programme Research and Development of the European Regional Development Fund:

- **AgroBioTech** ITMS 26220220180 Building Research Centre AgroBioTech;
- **TRIVE** ITMS 26110230085 Development of International Cooperation for the Purpose of the Transfer and Implementation of Research and Development in Educational Programs;
- **ITEBIO** ITMS 26220220115 Support of technologies innovation for special bio-food products for human healthy nutrition.

Experimental activities were realized in laboratories of **Excellence Center for Agrobiodiversity Conservation and Benefit** (ECACB) at the Faculty of Agrobiology and Food Resources, Slovak University of Agriculture in Nitra.

AgroBio*Net* – international network for the implementation of international research, education and development program entitled "Agrobiodiversity for improving nutrition, health, and life quality" based on many years of cooperation established between Slovak University of Agriculture in Nitra and M.M. Gryshko National Botanical Garden of Ukraine National Academy of Sciences in Kyiv.

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Foreword

There were catastrophic consequences – the accident in the Chernobyl Nuclear Power Plant caused heavy loss of human lives, high material damages and moreover, uncountable negative consequences for the environment, ecosystems, plant and animal populations living on the territory, which was severely targeted by radiation.

The radiation has not only a one sided short-time effect – it is dangerous for the intervened environment, in which could be active for several hundred years. Actually, the nature in such environment is representing a constant danger for any organism and it really can be taken as a living natural experiment.

Therefore it is necessary to study those processes to be able to understand the ongoing changes in different species and search for new consequences enabling to gain new knowledge.

The main goal of this project "Biodiversity after the Chernobyl Accident" is to evaluate the radiation effects on the genetic, biological, morphological, biochemical and microbiological changes of the plant and animal organisms, their occurrence in the populations, eco-systems and agro-systems in the localities around the disaster centre including their consecutive effects on the health and the environment of their living citizens.

The radiation evaluation will be achieved by collecting of data available at several research institutes of the Ukraine and those gained in the neighbour countries.

This Proceedings will be used as a basic document at the expert meeting organized in Ukraine, where the elaboration of the potential collaborative project will be negotiated.

Project organizers