



## The EU-BALKAN FABNET Newsletter

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## SPECIAL EDITION

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## Introduction

Dear reader,

EU-Balkan-FABNET is a two-year project supported by a network of 11 partners aiming at increasing the participation of researchers from the Western Balkans in research projects of the "Food, Agriculture and Fisheries, and Biotechnology" (FAFB) theme of the 7th EU Framework Programme (FP7). The project covers the following countries: Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro and Serbia.

Knowing that networking is a cornerstone of successful involvement in FP7, the EU-Balkan-FABNET partners identified the TRUEFOOD conference as a major opportunity for Western Balkan researchers to establish new contacts in the (traditional) food research sector. Supported by our project, a number of researchers will therefore attend the TRUEFOOD conference. We believe that this is also a good chance for **TRUEFOOD participants to build novel partnerships in the Western Balkans.**

Furthermore in this newsletter issue:

- read more about the strengths of the food sector in certain Western Balkan countries;
- discover important research institutions in these countries.

We hope this conference will prove a fruitful experience!

Best regards,

on behalf of the EU-Balkan-FABNET team,

Gorgias Garofalakis, project coordinator

**More information about the EU-Balkan-FABNET project? Click: <http://www.balkan-fabnet.eu/>**



## SEVENTH FRAMEWORK PROGRAMME

### International cooperation in the 2009 call in Food, Agriculture and Fisheries and Biotechnology

The topics of the 2009 workprogramme for Food, Agriculture and Fisheries and Biotechnology (FAFB) are all open to cooperation with third countries.

However, a number of topics have been identified as SICA (Specific International Cooperation Actions), thus requiring the participation of third countries. Such topics are normally selected as such because of the mutual interest on them, the potential they have to lead to solutions to challenges at the global level or the help that they can provide towards the needs of specific third countries.

In particular, a total of 19 topics are characterised as SICA and require the participation of third countries, as described in the call.

Those calls address a wide range of problems, such as water savings in agriculture, sustainability in agriculture and rural development, international cooperation in the sharing of food technology research, introduction of innovation in places with traditional agricultural practices, valorisation of food-processing by-products, etc.



Furthermore, an additional 11 topics have high relevance to the capacities and interests of third countries, thus their participation is strongly encouraged. Those topics address challenges such as improving the performance of organic crops using breeding and management approaches, self-sustained aquaculture, characterisation of nano-particles in the food matrix, applications of nano-biotechnology, etc.

The Western Balkan Countries (with the exception of Bosnia and Herzegovina) are associated to the Framework Programme. Thus, the researchers from those countries can participate in FP7 proposals and projects, either as partners or as coordinators, under the exact same terms as their colleagues from the EU Member States. The current call presents a number of opportunities in fields with particular interest for the Balkan region, such as novel legumes cropping systems, exploitation of presently under-used forest resources, research on bee health and apiculture, risk/benefit perception and communication, research on eating habits and its links with stress, behaviour and obesity, sustainability in food processing, bioremediation of PAH, etc.

Interested parties in the Western Balkan countries can seek for further information and support to their local EU-Balkan-FABNET partner organisation. The partners of EU-Balkan-FABNET can assist researchers from the Western Balkan region in identifying suitable FP opportunities that match their interest and capacities and can assist them in approaching potential partners in other EU regions.

The deadline for the submission of proposals for the current FAFB call is on 15/01/2009 (17:00 Brussels time). The call together with all supporting information is available on-line at CORDIS at [http://cordis.europa.eu/fp7/kbbe/home\\_en.html](http://cordis.europa.eu/fp7/kbbe/home_en.html)

## LANDSCAPE OF FAFB SECTOR IN BALKAN COUNTRIES

### Albania



Albania has always been a peripheral area of continental Europe, with traditions in subsistence farming. Although some industrial progress and economic growth has started, the country is still very much hit by poverty and low-technology agriculture based on very small plots of land has a major weight in the economy. This means that a longer period is needed before Albania can focus on science and technology, because building basic infrastructures need to come first.

In Albania there are only few and rather small agri food research capacities. Together with Bosnia and Herzegovina, Albania has the smallest agri food research capacities among the BAFN countries (Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro and Serbia). The sector is dominated by state-owned institutions.

Many university and public research institute capacities lack middle-age researchers, which is a consequence of migration of the qualified personnel. Altogether, the number of researchers in the agri food sector is estimated at 300. Brain drain and brain waste processes are still going on, hopefully they will slow down in parallel with economic catching up, which has started.

Agri food research capacities are concentrated on scientific fields, which are less technology-intensive (economic aspects and horizontal issues), but food technology, human nutrition and consumer concerns also has some importance. The general state of agri food research infrastructure is rather poor.

Agri food research in Albania has the chance to develop if the whole country develops and if the agri food sector catches up in terms of technologies. If managed well, the state owned agri food research could help the modernisation process.

	Ongoing / started in 2005	Completed in 2005
Number of large research projects*	44	24
Of which		
projects in collaboration with industry	23 (52% of total)	22 (92%)
projects in which the organisation co-ordinates	23 (52%)	22 (92%)
European Union Framework Programme projects	18 (41%)	10 (42%)

The most active research areas in the agrifood sector by research activity according to the BAFN Survey (March 2008) are the management of natural and biological resources and animal production and husbandry. In this respect there may be some change as the response rate to the survey increases.

It is worth stressing that according to the Review Document [2007], the research priorities of the Albanian agrifood scientific community seems to be in accordance with socio-economic needs. It is also true, however, that we do not know the actual weight of these priorities:

- conservation and breeding of plant and animal resources;
  - food quality and safety management;
  - soil erosion, pollution, irrigation and drainage;
  - sustainable and integrated development of forestry;
  - plant and animal diseases monitoring and control;
  - biological diversity and biotechnology;
  - application of new technologies and improvement of existing ones;
  - identification and preservation of the genetic authenticity and diversity of plant, animal and fish in Albania;
  - organic agriculture;
  - studies on food analysis and biochemistry, veterinary diagnosis and prophylactics, studies on main pests and diseases and preventive actions, etc.;
  - marketing system in agriculture;
  - migration related problems in the rural areas;
- 
- implementation of the mathematical and applied informatics in agriculture;
  - Influences of the climatic changes in the agriculture, environment and human health.



For the private sector, quality and safety issues of local raw materials and processed products and ways for their improvement seem to have outstanding importance.

## ***FAFB research centres in Albania***

<b>Name</b>
<b>Academy of Science</b>
Hydrometeorological Institute
Department of Meteorology
Agrometeorological Sector
<b>Agricultural University of Tirana (AUT)</b>
<b>Faculty of Biotechnology and Food</b>
<b>Faculty of Agriculture</b>
Department of Animal Production
Department of Agroenvironment and Ecology
Department of Crop Production
Department of Economics & Agrarian Policy
Department of Farm Management and Agrobusiness
Department of Horticulture and Plant Protection
<b>Faculty of Forestry Sciences</b>
Department of Wood Processing
Forestry Department

<b>Faculty of Veterinary Medicine</b>
Department of Clinical Subjects
Department of Morphofunctional Subjects
Department of Preclinical Subject
<b>Center of Agricultural Technology Transfer-Korca</b>
Department of Agriculture
Plant Laboratory, Milk Laboratory; Experimental Station
Livestock Department
<b>Center of Agricultural Technology Transfer-Lushnja</b>
Department of Vegetables
Laboratories: Germoplasm Room; Experimental Station
Wheat Section (Technology Transfer & Seed Production)
<b>Center of Agricultural Technology Transfer-Shkodra</b>
Department of Agriculture
Plant Laboratory & Experimental Station
<b>Centre of Agricultural Technology Transfer-Fushe Kruja</b>
Department of Agriculture
Land & Water Service Department
Livestock Department
<b>Centre of Agricultural Technology Transfer-Vlora</b>
Department of Agriculture
In-Vitro Laboratory and Experimental Station
<b>Institute of Food Safety and Veterinary-Tirana</b>
<b>University of Korca Fan S. Noli</b>

Source: *Review Document* [2007]

## Bosnia and Herzegovina

Bosnia and Herzegovina, a mountainous country, is highly dependent on FAFB (food, agriculture, forestry and biotechnology) sector. More than a third population is actively involved in these activities, the products of which contribute more than 10% of GDP. Research activities in this sector are located mainly in state's universities and institutes. All research in B&H is publicly funded. There is no history of private sector funding and no consultative mechanisms allowing industry views to be taken into account in formulating overall or sectoral priorities for research and development.



Funding responsibility lies with the entity Ministries responsible for research and with the institutes responsible or able to undertake research and development. Funding from the budgets of the entity Ministries has virtually ceased. The absence of an overall national strategy and policy for research and development, coupled with the influence exerted by senior staff of the larger institutes, results in ad hoc selection of the few projects that are undertaken.

Recently, the international co-operation of the B&H institutions and participation in its researches in the large projects have noticeably increased their capacities, as is evident from the number of papers published in domestic and international journals. According to the nature of research activities our institutions or its departments are primarily engaged in the some of the following fields of research:

- plant production,
- animal production,
- food science technology,
- forestry,
- wood science and technology,
- biotechnology,
- biology,
- landscape architecture,
- biochemistry and molecular chemistry,

in addition to the basic and applied projects in research fields organized primarily according to disciplines mainly institutions participate in interdisciplinary research activities in environmental protection, rural development, etc.



It is important to emphasize that there are many obstacles on the progress and strength research in the FAFB sector in Bosnia and Herzegovina. Most important of them are:

- inadequate funding of research activities from local and national authorities,
- lack of national bodies responsible for research and science,
- lack of specialized research staff in some institutions
- lack of equipment.

Currently, research in this sector is carried out at five faculties of agriculture, two faculties of food technology, two faculties of forestry, one of veterinary medicine and one of faculty of science. Additionally, three agricultural, one veterinary and one soil science institute as well as institute for genetic engineering and biotechnology are actively involved in research and development on FAFB sector.

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## *FAB research centres in Bosnia And Herzegovina*

<b>Institutions</b>	<b>Contact</b>	<b>Research activities</b>
Faculty of agriculture and food sciences, University of Sarajevo	<a href="http://www.ppf.unsa.ba">www.ppf.unsa.ba</a>	Land and land management, food and fodder production (all main areas), food processing (all main areas), agro-economics, agriculture and food policies, food safety issues, agricultural mechanization, rural development environmental issues
Faculty of veterinary science, University of Sarajevo	<a href="mailto:vetfaksa@vfs.unsa.ba">vetfaksa@vfs.unsa.ba</a>	Animal health, food hygiene and safety, hygiene and animal health control
Faculty of Forestry, University of Sarajevo	<a href="mailto:info@sumfak.co.ba">info@sumfak.co.ba</a>	Forest disease control, forest management, biodiversity, wild animals, economic of forestry, forestry policies
Faculty of Science, University of Sarajevo		Biodiversity, gene science, geo-diversity, meteorology, fish science, environmental management
Faculty of Agriculture University of Banja luka	<a href="http://www.agric.rs.sr">www.agric.rs.sr</a>	Land and land management, food and fodder production (all main areas), agro economics
Faculty of Technology, University of Banja Luka	<a href="http://www.tehfakbl.org">www.tehfakbl.org</a>	Food processing (all main areas), food quality control, food safety issues
Faculty of Forestry University Banja Luka	<a href="http://www.sfbi.org">www.sfbi.org</a>	Forest disease control, forest management, biodiversity, wild animals, economic of forestry, forestry policies
Faculty of Technology University Tuzla	<a href="http://www.tf.untz.ba">www.tf.untz.ba</a>	Department for food processing (focus on meat), food quality control, food safety issues
Faculty of Agronomy, University of Mostar	<a href="http://www.sve-mo.ba/af">www.sve-mo.ba/af</a>	Land and land management, food and fodder production, agro economics
Faculty of Mediterranean plants, University Dzemal Bijedic Mostar	<a href="http://www.af.unmo.ba">www.af.unmo.ba</a>	Land and land management, food and fodder production, agro economics
Faculty of Biotechnology, University of Bihac	<a href="http://www.unibi.ba">www.unibi.ba</a>	Land and land management, food and fodder production, agro economics
Institute for Agropedology FB&H, Sarajevo	<a href="mailto:zapsa@pksa.com.ba">zapsa@pksa.com.ba</a>	Main focus: development of GIS (FB&H) and development of land quality monitoring system, land quality controls and certification (labs), extension in the area how to manage land and crops(fertilisation), environmental impact assessments
Agricultural Institute FB&H, Sarajevo	<a href="mailto:p.institut@sartnet.ba">p.institut@sartnet.ba</a>	Main focus: to provide extension service to the clients (farmers cooperatives and farmers), to control new varieties of all plants for production of food, control of plant health status of plant material, virus free testing and sporadic food quality control.

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Institute for Genetic engineering and Biotechnology, Sarajevo	<a href="http://www.ingeb.ba">www.ingeb.ba</a>	Main focus: to provide services connected with gene Research: to upgrade knowledge about genes
Agricultural institute, Mostar		Main focus: Mediterranean fruit, wine and tobacco control of the plant health status of plant material and selection services, milk control, keeping vineyard cadastre; lab for analysis and certification of wine and tobacco production
Agricultural Institute RS, Banja Luka	<a href="http://www.poljinstbl.com">www.poljinstbl.com</a>	Main focus: to provide extension service for clients, to perform regulatory (control) function in the area of plant health, seed quality, GMO. Research: development of new varieties of different crops (mostly corn)
Veterinary Institute RS, Vaso Butozan, Banja Luka		Main focus: to perform part of regulatory function – control of zoonoses, and parasites, animal diseases, safety of animal origin food, milk and milk products; Research on animal diseases

## Croatia

The FAFB research in Croatia covers many different fields, such as sustainable agricultural production, food quality and safety, rural development, agriculture policy, water management, landscape management or forestry and fisheries.

The agricultural policy, as well as the forestry and the water management are under the auspices of the Ministry of Agriculture, Forestry and Water Management.



The main body responsible for developing research policy in the Republic of Croatia is the Ministry of Science, Education and Sports, which carries out administrative and other tasks relating to planning, financing, implementing and monitoring science and technology in Croatia. Research activities in the Republic of Croatia, incl. the ones related to the FAFB sector, are almost entirely financed from public resources.

The main research organizations in the FAFB sector are universities/faculties and governmental research institutes. The Universities of Zagreb and Osijek are the main research centres as far as FAFB research is concerned. The University of Zagreb consists of several faculties in this area, such as the Faculty of Agriculture, the Faculty of Food Technology and Biotechnology, the Faculty of Veterinary Medicine, the Forestry Faculty, the Faculty of Chemical Engineering and Technology... etc., while most of the agri-food research at the University of Osijek is being performed at the Faculty of Agriculture and the Faculty of Food Technology. There are other universities covering as well the FAFB area, like the University of Split, University of Rijeka, University of Dubrovnik, University of Zadar and University of Pula.



As far as the research institutes are concerned, there is the Institute of Oceanography and Fisheries and the Institute for Adriatic Crops and Karst Reclamation in Split, the Ruđer Bošković Institute, the Institute for Medical Research and Occupational Health and the Croatian Veterinary Institute in Zagreb, the Agricultural Institute in Osijek, the Institute of Agriculture and Tourism in Poreč, and the Forestry Research Institute in Jastrebarsko. Currently there is no re-structuring foreseen in the agri-food sector. Re-structuralization came about in the early '90s, but it was related to the political situation of the country. There is no trend for concentration of agro-food research entities (mergers), but networking and mutual collaboration is supported, especially among

faculties and research institutes from the same cities (for example Osijek - Faculty of Agriculture and Agricultural Institute). Research in the FAFB area is being financed both by the Ministry of Agriculture, Forestry and Water Management, and by the Ministry of Science, Education and Sports. Most of the agro-food research institutions are still public, but the private sector starts getting involved slowly. There is no specific research programme which deals exclusively with agrofood research.

## ***FAFB research centres in Croatia***

<b>Faculty of Chemistry and Technology, University of Split</b>	<b>Dr. Branka Andricic</b>
<b><a href="http://www.ktf-split.hr">http://www.ktf-split.hr</a></b>	<b>+385 21 329 455; <a href="mailto:branka@ktf-split.hr">branka@ktf-split.hr</a></b>
Dr. Andricic and her group (Dr. Stipanelov Vrandečić and Dr. Erceg) are well versed in preparation, processing and characterization of polymer blends and composites; especially in the field of thermal characterization, degradation and kinetics of thermal degradation. We are interested in study of thermoplastics from renewable resources (PHB, PLA), their blends and composites. We investigate the composites with bio-based fillers, which often ended as the waste. Our main occupation is to find appropriate environmentally friendly fillers and plasticizers for those plastics to extend its field of application.	
<b>Veterinary faculty University of Zagreb</b>	<b>Mr. Juraj Grizelj</b>
<b><a href="http://www.vef.hr">www.vef.hr</a></b>	<b>+ 385 95 900 3336; <a href="mailto:jgrizelj@vef.hr">jgrizelj@vef.hr</a></b>
The Clinic for obstetrics and reproduction (COR) of Veterinary faculty University of Zagreb is the reference centre in the field of reproduction of (small) ruminants in Croatia. Assisted Reproduction Procedures of (small) ruminants, diagnostic ultrasound examination of ovaries and uterus; ultrasound follicular assessment of donor female ovaries, laparoscopic assessment of goat/ewe uterus; collection of embryos, morphology and development competence evaluation of the small ruminant embryos; cryopreservation and transfer of embryos. Besides reproductive researches mentioned above, the COR deals with in vivo production of small ruminant embryos, cryopreservation and transfer of embryos to recipient females.	
The current research activities of the COR are performed through national "The super ovulation optimization and cryopreservation of goat embryos" and international "Balkan network of biotechnology in animal reproduction for the production and restoration of animal genetic resources in the region" projects. The COR is equipped with binocular magnifiers, freezing device for biological tissues, incubators, nitrogen tanks, laparoscopic equipment, micromanipulator.	

## Serbia

The Serbian agricultural sector is the second largest contributor to its GDP. The agro processing industry is one of the most important sectors of the economy, constituting 80% of all agricultural exports.

The responsibility for agricultural research falls within the Ministry of Science of the Republic of Serbia. The R&D activities in the Republic of Serbia are performed in:

1. 5 universities (Belgrade, Novi Sad, Nis, Kragujevac and Pristina)
2. network of research institutes - independent institutes and government institutes often connected to the Universities.
3. R&D units in industry - within the big agri-business enterprises



Serbia traditionally has the substantial capacities for agrifood research. The number of researchers funded in 2007 was approximately 8600 (6500 in universities and 2100 in research institutes). The sources of funding for the research are the government's (48%), private production (12%), provision of services (8%), and other sources (33%). However, the six leading agricultural research institutes typically earn in excess of 80 percent of their income from royalties, product sales and regulatory and consulting services. The capacity of Serbian universities to support research is limited by funding and resource constraints.

Serbia has a good track record in agricultural research, especially in plant breeding, and many viable plant varieties have been exported outside its borders. The research units of Serbia developed 22 important innovations, patented 22 domestic and 11 Triadic patents per 100 researchers in period 2003-2005 (preliminary results from the AgriMapping project). The most significant research areas in the agrifood sector by research activity according to the BAFN Survey (March 2008) are food technology, human nutrition and consumer concerns, plant production and protection, plant breeding and biotechnology and animal production and husbandry.

On June 13, 2007 Serbia signed a Memorandum of Understanding (MoU) with the European Commission which will allow it full access to the EU's 7th Research Framework Programme (FP7). The Ministry of Science provides advice and help to Serbian scientists on opportunities within FP7 by:

- Promotion, information dissemination, info-days
- NCP network
- Office for Supporting FP7 proposal preparation
- Active assistance in proposal preparation (EU/International project management courses)
- Assistance in negotiation phase
- Assistance in administrating and audit preparation
- Co-financing: 10% of the budget allocated by the EC
- Results: 83 FP6 registered participations
- Total budget obtained: 13.5 Mio €
- Ministry's participation in specific actions and ERA.NET projects (SEE-ERA NET, ERA-WESTBALKAN, ERA-WESTBALKAN+, and so on)
  - 8 out of 10 CoE in the WBC 2005 INCO Capacity Call (2.5 M€)
  - 8 out of 20 CoE in the WBC 2006 INCO Capacity Call (2.1 M€)
  - FP7, REGPOT 3: 7 out of 11 coordin., 10 out of 11 participations

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## *FAB research centres in Serbia*

<b>Institutions</b>	<b>Contact</b>	<b>Research activities</b>	
Faculty of Agriculture University of Belgrade	<a href="http://www.agrifaculty.bg.ac.yu">www.agrifaculty.bg.ac.yu</a>	crop science, fruit science and viticulture, animal science, soil management, plant and food protection, agricultural engineering, food technology and agricultural economics	FP6 Projects: WATERWEB, CEEC AGRI POLICY, SAFIR, CROPWAT, BAFN, ACCENT,  FP7 Projects: ROSA, AGRIPOLICY
Faculty of Technology University of Belgrade	<a href="http://www.tmf.bg.ac.yu">www.tmf.bg.ac.yu</a>		FP6 Projects: EMKO, PREWARC, INTREAT
The Institute for Biological Research "Sinisa Stankovic"	<a href="http://www.ibiss.bg.ac.yu">www.ibiss.bg.ac.yu</a>	multidisciplinary investigations in molecular biology and biochemistry, cytology, physiology, plant physiology, neurobiology, immunology, genetics, ecology, evolutionary biology, taxonomy, biogeography and the environmental protection.	FP6 Projects: PBPTSD
Institute for Food Technology Novi Sad	<a href="http://www.fins.ns.co.yu">www.fins.ns.co.yu</a>	Functional food, Conventional food, Nutrigenomics, Food and diet related diseases, Food pattern and health, Food chain management	FP7 Projects: FEED-TO-FOOD
Faculty of Technical Sciences Novi Sad	<a href="http://www.ftn.ns.ac.yu">www.ftn.ns.ac.yu</a>	Production Engineering, Power Engineering and Process Technique, Technical Engineering, Power, Industrial Engineering and Management, Environmental Engineering, Fundamental Disciplines	FP6 Projects ReCIMiCo, FP7 Projects: AGROSENSE, RP-DEMATEN
Faculty of Natural Sciences Novi Sad	<a href="http://pmf.n.s.ac.yu">http://pmf.n.s.ac.yu</a>		FP6 Projects: REP-LECOTOX, , RECAP, CECRA, ALARM, ADAGIO