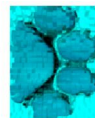




FCUB ERA



## 2<sup>nd</sup> FCUB ERA Workshop

# Food Chemistry and Biotechnology

Belgrade, 18<sup>th</sup> and 19<sup>th</sup> October 2011.



## **2<sup>nd</sup> FCUB ERA Workshop**

Prof. Dr. Živoslav Tešić, President of the 2<sup>nd</sup> FCUB ERA Workshop

### **Scientific Committee:**

Dr. Dragana Stanić-Vučinić (President)  
Prof. Dr. Tanja Čirković Veličković  
Prof. Dr. Miroslav Vrvić  
Prof. Dr. Dusanka Milojković-Opšenić  
Prof. Dr. Zoran Vujčić  
Dr. Nataša Božić  
Dr. Craig Faulds  
Dr. Theodore Sotiroudis  
Dr. Estelle Bonnin  
Dr. Ivan Minkov

### **Organizing Committee:**

Dr. Nenad Milosavić (President)  
Dr. Milan Nikolić  
Jelena Radosavljević  
Jana Ognjenović  
Aleksandra Dimitrijević  
Dušan Veličković  
Marija Stojadinović  
Jelena Vesić  
Ivana Prodić  
Maja Krstić

## **P 30. Nutritive and biological values of some *Pyrus* varieties growing in Serbia**

Jovana R. Stefanovi, Aleksandra R. Savi<sup>1</sup>, Dragica M. Jakovljevi, Gordana . Gojgi  
- Cvijovi, Miroslav M. Vrvic<sup>2</sup>

*ICHTM, Department of Chemistry, University of Belgrade, Njegoševa 12, P. O. Box 473, 11000  
Belgrade, Serbia,*

<sup>1</sup>*Natural History Museum, Njegoševa 51, P. O. Box 401, 11000 Belgrade, Serbia,*

<sup>2</sup>*Faculty of Chemistry, University of Belgrade, Studentski trg 16, P. O. Box 51, 11158 Belgrade,  
Serbia*

Different *Pyrus* varieties grown in the territory of Serbia are collected and examined from the standpoint of their nutritive and biological values. Great diversity in their morphological properties is well studied and exposed in the Collection of fruit (582.634.1) funded in the Natural History Museum in Belgrade, where the Project “Collection of fruit – autochthonous and cultivated fruit of Rudnik – Takovo region” has been realizing since 2005. However, detailed content of some common parameters is not completely known.

The aim of this study was to characterize twelve different allochthonous varieties of *Pyrus* species grown on the territory of Serbia. These are: Beurre Clairgeau, Abbate Fetel, General Leclerc, Beurre Bosc, Conference, Beurre d` Hardepont, Williams Christbirne Bartlett, Doyenne du Comice, Kifer, Packham’s Triumph, Curé, Passe Crassane. These varieties are commercial, and have the same origin (*Pyrus communis L.*). Most of them grows in Serbia since 18<sup>th</sup> or 19<sup>th</sup> century, but some of them are new (e.g. Packham's Triumph). Morphological and organoleptic properties, as well as basic chemical composition and energetic values, indicated significant difference between species. This is very important for their potential use in food industry, such as production of juices, sweets, jams, alcoholic beverages, etc.

In order to characterize these pear varieties in more detail, the content of organic acids, proteins, carbohydrates (total sugar content, glucose, fructose, pectin, insoluble dietary fibers), lipids, minerals and vitamin C was determined by standard methods.

Although the differences in the chemical composition of samples were found, the obtained results indicate that all of *Pyrus* varieties are suitable for potential industrial processing - high content of carbohydrates (55 – 71 g / 100 g dry matter basis) makes them usable for preparing different fruit products, as well as fermentation beverages. Pectin (0.3 – 6.3 g / 100 g) and fiber content (1.6 – 6.3 g / 100 g), which differs among varieties, is very important for gelling, thickening and stabilizing of pear products, as well as for functionality of these fruits.