

BOOK OF ABSTRACTS



*VIII International Scientific Agriculture Symposium
Jahorina, October 05-08, 2017*



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sym

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PREFACE

A Word from the Editor

Dear colleagues,

In your hands is the Book of Abstracts of the VIII International Scientific Agricultural Symposium “AGROSYM 2017”, which I hope you will find useful in your work. As many as over 1300 contributions from 85 world countries have been accepted for oral or poster presentations regarding seven thematic areas: 1) Plant production, 2) Plant protection and food safety, 3) Organic agriculture, 4) Environment protection and natural resources management, 5) Animal Husbandry, 6) Rural development and agro-economy, and 7) Forestry and agroforestry

Sustainable development in agriculture, forestry and fisheries sectors should conserve land, water, genetic resources, and be environmentally non-degrading, economically viable, technically appropriate and socially acceptable. As the human population continues to increase, agro-food systems faces the challenge of fulfilling its vital function of feeding people, providing other basic agricultural commodities and generating stable incomes. Higher food demand, as a result of population growth and urbanization, as well as the lack of alternative job opportunities in rural areas is putting pressure on agriculture to increase production, resulting in degradation of the environment. Deforestation, erosion, desertification and biological diversity loss as well as various forms of pollution all threaten the ability of agricultural systems to even maintain their present level of production, let alone increase it.

Future needs for breeding and crop diversification cannot be predicted in the face of changing climates, new agricultural production systems, and unknown future human requirements. Conventional agricultural production allows achieving high yields but has negative impacts on the environment. Therefore, we must question how long our natural resources can meet the need for an increased output of agricultural commodities, before drastic degradation of the resource occurs and productivity falls even below its present levels.

AGROSYM 2017 will help of course to identify some measures by which we can decide on a course of action to make agriculture more sustainable from the environmental, economic and social point of view in the Balkans and beyond. The results reported in this Book of Abstracts will be also significant in the dissemination of knowledge to the wider audience about the importance of agriculture sciences, one of the most important strategic areas of many national research strategies.

Full texts of positively reviewed submitted contributions are available in electronic form (CD and web: <http://agrosym.unssa.rs.ba>). Each contribution included in this Book of Abstracts was reviewed by referees.

Many thanks to all the authors, reviewers, session moderators and colleagues for their help in editing the Book of Abstracts.

Special thanks go to all co-organizers, partners and sponsors for their unselfish collaboration and comprehensive support.

Editor in Chief



East Sarajevo, 25 September 2017

Prof. Dušan Kovačević, PhD

ANALYTICAL INDICATORS OF PLUM FRUIT SENSORY CHARACTERISTIC CHANGES AFTER SEVEN-DAY STORAGE AT ROOM TEMPERATURE

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Abstract

Consumer acceptance of plum is based, primarily, on the corresponding sensory characteristics of the fruits: appearance, colour, firmness, taste and aroma. If not consumed immediately after harvesting, the aforementioned characteristics of plum will change. Still, those changes are less expressed when fruits are kept in cold storage, at low temperatures. However, during the transport and storage of plum at room temperature, which is often the case in local market plum sale, intense changes of certain characteristics of the fruit happens as well as a significant shortening of shelf life. The most expressive is firmness change where fruits become completely soft after seven days. Appearance and colour of the fruit are less susceptible to change. Since plum taste and odour depend on sugar and acid content, i.e., sugar-acid ratio and the content of certain volatile aromatic components, changes of their contents have been examined in some important plum cultivars in Serbia after seven-day storage at the temperature 20 ± 1 °C. Sugar-acid ratio that determines sweetness, i.e., fruit acidity, has not significantly changed during the storage period. Among 10 examined aromatic components, the most significant changes have been observed in 2-E-hexenal, which gives a distinctive green note aroma and nonanal, characteristic plum-like scent. During the seven-day storage of picked plums, the content of 2-E-hexenal decreased while the content of nonanal increased.

Keywords: *Plum, shelf life, sugar/acid ratio, volatile aromatic components, odour activity values.*