BOOK OF ABSTRACTS

AgroSym

VIII International Scientific Agriculture Symposium

Jahorina, October 05-08, 2017





agro sym 2017

BOOK OF ABSTRACTS

VIII International Scientific Agriculture Symposium
"AGROSYM 2017"

AGROSYM 2017

Jahorina, October 05 - 08, 2017

Impressum

VIII International Scientific Agriculture Symposium „AGROSYM 2017“

Book of Abstracts Published by

University of East Sarajevo, Faculty of Agriculture, Republic of Srpska, Bosnia
University of Belgrade, Faculty of Agriculture, Serbia
Mediterranean Agronomic Institute of Bari (CIHEAM - IAMB) Italy
International Society of Environment and Rural Development, Japan
Regional Rural Development Standing Working Group (SWG) in Southeastern Europe, Macedonia
Balkan Environmental Association (B.EN.A), Greece
University of Applied Sciences Osnabrück, Germany
Perm State Agricultural Academy, Russia
Voronezh State Agricultural University named after Peter The Great, Russia
Centre for Development Research, University of Natural Resources and Life Sciences (BOKU), Austria
Selçuk University, Turkey
University of Agronomic Sciences and Veterinary Medicine of Bucharest, Romania
University of Valencia, Spain
Faculty of Agriculture, Cairo University, Egypt
Tarbiat Modares University, Iran
Higher Institute of Agronomy, Chott Mariem-Sousse, Tunisia
Faculty of Economics Brcko, University of East Sarajevo, Bosnia and Herzegovina
Biotechnical Faculty, University of Montenegro, Montenegro
Institute of Field and Vegetable Crops, Serbia
Institute of Lowland Forestry and Environment, Serbia
Institute for Science Application in Agriculture, Serbia
Agricultural Institute of Republic of Srpska - Banja Luka, Bosnia and Herzegovina
Maize Research Institute “Zemun Polje”, Serbia
Faculty of Agriculture, University of Novi Sad, Serbia
Institute for Animal Science, Ss. Cyril and Methodius University in Skopje, Macedonia
Academy of Engineering Sciences of Serbia, Serbia
Balkan Scientific Association of Agricultural Economics, Serbia
Institute of Agricultural Economics, Serbia

Editor in Chief

Dusan Kovacevic

Tehnical editors

Sinisa Berjan
Milan Jugovic
Noureddin Driouech
Rosanna Quagliariello

Website:

http://www.agrosym.rs.ba

CIP - Каталогизација у публикацији
Народна и универзитетска библиотека
Републике Српске, Бања Лука

631(048.3)(0.034.2)

INTERNATIONAL Scientific Agricultural Symposium "Agrosym 2017" (8 ; Jahorina)
Book of Abstracts [Elektronski izvor] / VIII International Scientific Agriculture Symposium "Agrosym 2017", Jahorina, October 05 - 08, 2017 ; [editor in chief Dušan Kovačević]. - East Sarajevo =Istočno Sarajevo : Faculty of Agriculture =Poljoprivredni fakultet, 2017. - 1 elektronski optički disk (CD-ROM) : tekst, slika ; 12 cm

CD ROM čitač. - Nasl. sa nasl. ekrana. - Registar.

ISBN 978-99976-632-9-0

COBISS.RS-ID 6803480

EFFECTS OF PHENYLACETONITRILE AND *PERGULARIA TOMENTOSA* ON BEHAVIORAND ECDYSTEROID AMOUNTS IN S*CHISTOCERCA GREGARIA*

Meriem MILADI, Khemais ABDELLAOUI, Iteb BOUGHATTAS, Raoudha KHANFIR-BEN JENANA, Monia BEN HALIMA-KAMEL..... 556

DETECTION OF ENZYMATIC BROWNING ON BANANA USING COLOR ANALYSIS

Abdullah BEYAZ, Ergin DURSUN, İlknur DURSUN..... 557

REAL TIME ENZYMATIC BROWNING DETECTION ON QUINCES (*CYDONIA OBLONGO*) BY USING LABVIEW SOFTWARE

Abdullah BEYAZ, Ergin DURSUN, İlknur DURSUN..... 558

USE OF DIFFERENT METHODS TO DETERMINE DISEASE RESISTANCE OF SOME *VITIS* SPP.

Arif ATAK, Zühtü POLAT, Murat AKKURT, Zekiye GÖKSEL, Hüseyin ÇELİK, Gökhan SÖYLEMEZOĞLU, Kemal Abdurrahim KAHRAMAN, Yılmaz BOZ, Nuray ÖZER, Zeynep YILDIRIM, Davut Soner AKGÜL, Gülhan GÜLBASAR KANDİLLİ, Yeşim DOYĞACI..... 559

RATIONAL USAGE OF PLANT EXTRACTS IN FOOD NANOTECHNOLOGY

Aysegül BEŞİR, Fehmi YAZICI..... 560

WATER QUALITY AND FOOD SAFETY

Bayram YURT..... 561

INVESTIGATION OF INHIBITION KINETICS OF SOME HEAVY METALS ON GLUCOSE-6-PHOSPHATE DEHYDROGENASE ENZYME FROM TURBOT GILL TISSUE

Mustafa DENİZ, Ahmet Can OLCAY, Gürkan BİLİR, Deniz EKİNCİ..... 562

DETERMINATION OF SOME PHYSICAL PROPERTIES OF OSMANCIK-97 AND TOSYA GUNESI RICE SEED VARIETIES

Ebubekir ALTUNTAS, Muberra ERDOGAN, İsmail NANELİ..... 563

THE EFFECT OF AVG TREATMENT AND HARVEST PERIODS ON PHYSICAL, CHEMICAL AND MECHANICAL PROPERTIES OF PLUM (CV. GIANT) FRUITS

Ebubekir ALTUNTAS, Burhan OZTURK, Onur SARACOGLU..... 564

PHYSICO-MECHANICAL, COLOUR AND CHEMICAL PROPERTIES OF SELECTED CHERRY LAUREL GENOTYPES OF TURKEY

Ebubekir ALTUNTAS, Onur SARACOGLU, Hakan POLATCI..... 565

ANTIOXIDANT STABILITY OF CINNAMON, CLOVE, AND HIBISCUS INFUSIONS AND DECOCTIONS STORED IN THE REFRIGERATOR

Fatma Gizem AKÇAKAYA, Levent Yurdaer AYDEMİR..... 566

DETERMINATION OF ROOT-KNOT NEMATODES AND SOIL-BORNE PATHOGENS IN GREENHAUSE IN SERIK (ANTALYA, TURKEY) AND EVALUATION OF EFFECTIVE NEMATODE CONTROL METHOD

REAL TIME ENZYMATIC BROWNING DETECTION ON QUINCES (*CYDONIA OBLONGO*) BY USING LABVIEW SOFTWARE

Abdullah BEYAZ*, Ergin DURSUN, İlknur DURSUN

Department of Agricultural Machinery and Technologies Engineering, Faculty of Agriculture, Ankara University, Turkey
*Corresponding author: abeyaz@ankara.edu.tr

Abstract

In Turkey, nearly 110 000 tons quince fruit have been produced every year. Quality of quince fruit depends on size, color, pattern and type of skin defects according to the international marketing standard. But, the color of the fruit surface is the first quality parameter for many consumers. This is vital in the acceptance of the product in the marketplace. Enzymatic browning is one of the most important reactions that occur in fruits and vegetables, usually resulting in negative effects on color, taste, flavor, and nutritional value. So, the control of surface browning is important for protecting the quality and safety properties of fresh fruits. Enzymatic browning can be quantified using physical indicators, such as the color surface or biochemical index, for example the polyphenol oxidase activity. The aim of this study was to determine color changes with X-Rite Ci60 colormeter and skin defects in real time by using Labview software on quinces. L a b space color was used to get three color channels, lightness (L), redness (a), and yellowness (b). Especially, the L value, which has been used as a browning indicator in fruits. The color changes due to enzymatic browning on each fruit sample were determined by using color analysis, which based on webcam observation and Labview programming. The change of color values were observed day by day and also real time detection system was tested by using these quinces repeatedly. The enzymatic browning was sorted and the color changes on quinces were observed successfully. Also results obtained from study were assessed statistically.

Keywords: *Enzymatic browning, Quince, Real time video analysis, Mechanical damage*.