

**STARCH CONTENT, TOTAL L-ASCORBIC ACID AND
CAROTENOIDS IN 20 VARIETIES OF SOLANUM TUBEROSUM
L. GROWN IN ROMANIA**

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Potato is a staple food crop and provide basic nutrition to millions of people globally. Although valued as staple carbohydrate crop, tubers with higher levels of health-promoting compounds could have a positive impact on the health of populations.

In this study, 20 varieties of potato, including new Romanian varieties and commercial varieties planted in two sites in Romania were evaluated for carotenoids and L ascorbic acid content.

The highest starch content level was observed to Opal and Roclas varieties. Higher levels of carotenoids were found in a new variety Sarmis showing maxim values 26 and 18 mg Kg-1 dry weight (DW) in skin and flesh, respectively. L Ascorbic acid was analyzed in the flesh only, with variety Hermes and Sarmis showing the highest content at 700mg Kg-1 DW and 640mg Kg-1, respectively. Significant differences in vitamin C and starch content were observed across sites.

This study provides information on level of important micronutrients, L ascorbic acid and potential health-promoting phytochemical such as carotenoids in a range of potato varieties.

Keywords: potato, L ascorbic acid, carotenoids.

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book of abstracts

6th International Conference

BIOATLAS

on Food and Tourism

Global and local Challenges in

Food and Tourism

Brasov, Romania, 27 to 28 May 2016



Special issue of Journal of EcoAgriTourism, ISSN 1844-8577

Transilvania University Press
500091 Brasov, B-dul Iuliu Maniu 41 A
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Fax: +40268 – 476051
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Editor: Prof. dr. eng . Liviu GACEU

<http://bioatlas.rosita.ro/>

Foreword

The quality of each person's life, as well as the entire evolution of a society, depends on the nutrition and psychical health of the human being. The world is nowadays confronted with a demographic explosion, concomitantly with a planet-wide accentuation of agricultural and food deterioration. This is the reason why we have to be prepared, in the XXI-th century, to face the Global and Local Challenges in Food Science and Technology, generated by the quantitative and qualitative food-related needs.

Under this them, more than 100 papers were received on the topics of food production, food processing, food quality and safety, nutrition, engineering and design, innovative technologies.

*The **BIOATLAS Conference** aims to keep the quality of an integrated, multidisciplinary and interconnected international conference on the topic of agri-food fields and it also drawn the interest of numerous specialists who continuously attempt to identify solutions to difficult contemporary problems.*

*The impressive international participation encourages us to believe that the **BIOATLAS Conference** may have positive echoes emerged from the experience and contribution brought by all **international participants** from Italy, Bulgaria, Hungary, Republic of Moldova, Russia, Ukraine together with researchers from Romania.*

*This book of abstracts contains selected abstracts of papers presented during the **BIOATLAS Conference**.*

The program for this conference required the dedicated effort of many people. Firstly, we must thank the authors, whose research efforts are herewith recorded. Secondly, we thank the members of the Scientific Committee and the additional reviewers for their diligent and professional reviewing. Last but not least, we thank the invited speakers for their invaluable contribution and for taking the time to prepare their talks.

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