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**Latvia University of Agriculture  
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**FOODBALT 2017**



**11th Baltic Conference on  
Food Science and Technology**

**“Food science and technology  
in a changing world”**

**Abstract Book**

**April 27–28, 2017  
Jelgava, Latvia**



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## ANALYSIS OF SOME CHEMICAL COMPONENTS, PHENOLIC COMPOUNDS AND ANTIOXIDANT ACTIVITY IN PHYSALIS

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*Physalis peruviana* L. is appreciated for its organoleptic characteristics, besides being rich in many beneficial compounds. Because its characteristics are yet not fully understood, the present work aimed at studying some of its chemical properties and bioactive phenols and the corresponding antioxidant activity. For obtaining the phenolic extracts three methods with different combinations of extracting solvents were essayed and the evaluation of total phenols, ortho-diphenols, flavonoids and antioxidant activity by DPPH and ABTS were done following established methodologies.

The results showed that *P. peruviana* had important amounts of fibre, vitamin C and carotenoids. Regarding the methods for extraction of phenolic compounds, the most efficient were those in which a combination of the solutions methanol : water and acetone : methanol were used. The phenolic compounds contents were quantified as being p to 59.9 mg GAE 100 g<sup>-1</sup>, flavonoids up to 0.340 mg QE 100 g<sup>-1</sup> and ortho-diphenols up to 94.6 mg GAE 100 g<sup>-1</sup>. The antioxidant activity ranged between 7.7 and 9.6 µmol TE g<sup>-1</sup> for method DPPH and between 12.3 and 13.7 µmol TE g<sup>-1</sup> for method ABTS.

**Keywords:** *Physalis peruviana*, extraction, phenolic compounds, antioxidant activity

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