UNIVERSITY OF LIFE SCIENCES ”KING MIHAI I” FROM TIMISOARA
”YOUNG PEOPLE AND MULTIDISCIPLINARY RESEARCH IN APPLIED LIFE SCIENCES”

05-06 November 2026



STUDY ON THE TOMATO PROCESSING RESIDUES

Dariana-Paula Iliuță[1], Mara Antonia Tazma[1], Liana Maria Alda[1,*], Despina Maria Bordean[1]
University of Life Sciences ”King Mihai I” from Timișoara
*Corresponding author: lianaalda@usvt.ro

Abstract: *The aim of this study is a literature review on the residues resulting from the processing of tomatoes (Solanum lycopersicum) such as tomato pomace, peels and seeds. The main compounds in tomato processing residues reported in literature are as follows: fibres ranged between 39.11-59.03 g/100g dw (pomace), 62.79-78.56 g/100g dw (peels) and 16 g/100g dw (seeds); proteins varies between 15.08-24.67 g/100g dw (pomace), 1.85-11.13 g/100g dw (peels) and 20.2-40.94 g/100g dw (seeds), lycopene ranged between 9.82-611.1 mg/100 g dw (pomace), 50-1930 mg/100g dw (peels) and 22.01-37.43 mg/100g dw (seeds) and oil content varies between 2-16.24 g/100g dw (pomace), 1.63-5.50 g/100g (peels) and 17.8-24.5 g/100 g in seeds.*

• Introduction

The food industry generates significant quantities of plant-based residues including peels, seeds, and other by-products that are often discarded, despite their valuable composition. Residues resulting from the processing of tomatoes (*Solanum lycopersicum*) represent particularly promising sources of dietary fiber, phenolic compounds, carotenoids, vitamins, and minerals.

• Material and method

The aim of this study is a literature review on the residues resulting from the processing of tomatoes (*Solanum lycopersicum*) such as tomato pomace, peels and seeds using databases such as USDA and scientific papers.

• Results and discussions

The main compounds in tomato processing residues reported in literature are as follows: proteins varies between 15.08-24.67 g/100g dw (pomace), 1.85-11.13 g/100g dw (peels) and 20.2-40.94 g/100g dw (seeds), lycopene ranged between 9.82-611.1 mg/100 g dw (pomace), 50-1930 mg/100g dw (peels) and 22.01-37.43 mg/100g dw (seeds) and oil content varies between 2-16.24 g/100g dw (pomace), 1.63-5.50 g/100g (peels) and 17.8-24.5 g/100 g in seeds.

• Conclusions

In addition to various other reported uses, theses processing residues dried and grounded into powders can be incorporate into bakery products, and can contribute to more sustainable processing and the development of value-added food products.