INTRODUCTION

Production of tomatoes in the organic system is very important because these are not only the most vegetables widely consume (the second after potato) but also are classified as a functional food. Due to the high content in bioactive compounds, especially lycopene, tomatoes provide nutritional properties and also contribute to maintaining health.

The amount of lycopene and total carotenoids content can vary with the variety, degree of ripeness, climatic conditions and agricultural practices. According to European legislation regarding organic crops, the organic products, compared to the conventional ones, have a higher amount of antioxidant compounds, are free of heavy metals and pesticides (Araújo, 2014; Lahoz, 2016; Bosona, 2018; Ronga, 2019).

MATERIALS AND METHODS

All the quality analyses were carried out in the laboratories of the Research Center for Studies of Food and Agricultural Products Quality, University of Agronomic Sciences and Veterinary Medicine of Bucharest.

RESULTS AND DISCUSSIONS

Nutritional parameters of Cher Ami and Coeur du Boeuf tomatoes varieties

<table>
<thead>
<tr>
<th>Variety</th>
<th>TA (Citric acid %)</th>
<th>Firmness (kgf/cm²)</th>
<th>DM (%)</th>
<th>TSS (%)</th>
<th>Maturity index (MI)</th>
<th>Taste index (TI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cher Ami</td>
<td>0.41 ± 0.03</td>
<td>0.73 ± 0.03</td>
<td>6.85 ± 0.02</td>
<td>5.35 ± 0.11</td>
<td>1.06 ± 0.02</td>
<td>13.03 ± 0.02</td>
</tr>
<tr>
<td>Coeur de Boeuf</td>
<td>0.45 ± 0.03</td>
<td>1.46 ± 0.03</td>
<td>4.87 ± 0.01</td>
<td>5.1 ± 0.16</td>
<td>1.02 ± 0.01</td>
<td>11.40 ± 0.02</td>
</tr>
</tbody>
</table>

The results showed that physicochemical quality of organic tomatoes varieties assessed as dry matter, total soluble solids, firmness, titratable acidity are depending on variety.

Both lycopene content and carotene content were in higher amount both in Cher Ami variety and in Coeur de Boeuf.

Organic tomatoes produced successfully under controlled conditions are a good source of nutritional quality parameters, which can be used in food and pharmaceutical industries.

CONCLUSIONS

NUTRITIONAL QUALITY PARAMETERS OF THE FRESH RED TOMATO VARIETIES CULTIVATED IN ORGANIC SYSTEM

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Keywords: organic tomato, lycopene, carotene, nutritional, quality

ACKNOWLEDGEMENTS

“Authors acknowledge the financial support for this project provided by transnational funding bodies, being partners of the H2020 ERA-net project, CORE Organic Cultiv., and the cofund from the European Commission.”

“This work was supported by a grant of the Romanian National Authority for Scientific Research and Innovation, C.CCDI – UEFISCDI, project number 4/2018 ERANET- CORE/ORGANIC-SusOrgPlus, within PNCDI III.”

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