

## Potential of onion byproducts as a sustainable source of dietary fiber and antioxidant compounds for its application as a functional ingredient



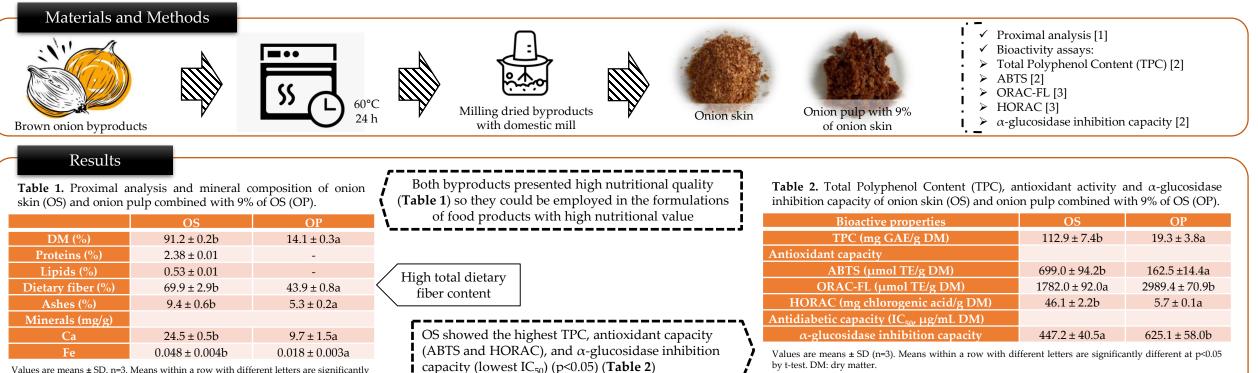
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## Introduction

Conclusions

The food industry shows interest in the development of new high added value products with a strong nutritional impact. Onion byproducts are a rich source of dietary fiber and bioactive compounds, which represent a sustainable alternative to the use of traditional ingredients in the formulation of food products for the application of circular economy concept. The objective of this work was to improve the management of waste from agrifood production, both from the economic and environmental point of view, focusing on the search for alternatives for the recovery of byproducts generated in the processing and production of onion.



Values are means  $\pm$  SD, n=3. Means within a row with different letters are significantly different at p<0.05 by t-test. Al the results are expressed in dry matter (DM) basis.

References

Based on the health-promoting effects shown by both onion byproducts, it can be concluded that they have great potential to be used as functional ingredients. In addition, their use as ingredients will subsequently include a positive impact on the environment through the application of the circular economy concept.

[1] AOAC Official Methods of Analysis; 16th ed.; Association of Official Analytical Chemists: Washington, 1999; [2] Fernández-Fernández, A.M.; Firondo-DeHond, A.; Dellacassa, E.; Medrano-Fernandez, A.; del Castillo, M.D. Assessment of Antioxidant, Antidiabetic, Antiobesity, and Anti-Inflammatory Properties of a Tannat Winemaking by-Product. Eur. Food Res. Technol. 2019, 245, 1539–1551; [3] Báez, J.; Fernández-Fernández, A.M.; Tironi, V.; Bollati-Fogolin, M.; Añón, M.C.; Medrano-Fernández, A. Identification and Characterization of Antioxidant Peptides Obtained from the Bioaccessible Fraction of  $\alpha$ -Lactalbumin Hydrolysate. J. Food Sci. 2021, 86, 4479–4490.

