

International E-Conference on

NUTRITION AND FOOD SCIENCE

December 09-10, 2020 | Virtual Webinar

Productive And Nutritional Evaluation Of Edible Mushroom Cultivated In Patagonia (Argentina)

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In the northern zone of Patagonia in Argentina, fruit and vegetable processing industries generate a lot of volumes of lignocellulosic by-products that can become suitable raw materials for the production of edible mushrooms. This paper presents studies carried out on the productivity of mushrooms grown on vegetable by-products of regional industries, as well as the nutritional quality of these mushroom. *Pleurotus sajor caju* and apple bagasse were used as primary inoculum and substrate, respectively. Biological Efficiency (BE), Yield (Y), Production Rate (PR) and morphometry of the fruiting bodies, were the productive parameters calculated. The composition in water, total proteins, fat and minerals constituted the nutritional analyzes. Among the results obtained we can mention: BE 62.6%, Y 35%, PR 1.57% in a productive period of 40 days. The dimensions of the structures of the fruiting bodies were: pileus diameter 15.70 ± 4.37 cm and stipe diameter 5.09 ± 0.98 cm, being the pileus length: 3.91 ± 0.56 cm. Regarding the nutritional composition, the analyzes revealed: water 80.0%, proteins 27.6%, fat 0.75%. The concentration of C was 40g% and the other minerals (in ppm): K: 34938, Ca: 6034, Mg: 8265, Fe: 21.6, Cu: 11.1, Zn: 56, Mn: 5.79. While there are traces of Cd and Pb. Energy content 1.45 KJ / 100g. Although the productivity indicators were not high, they revealed the feasibility of introducing regional fruit and vegetable by-products into a new food chain. In addition, the nutritional importance of edible mushrooms was proven, so their consumption can be recommended in all types of diets.

Keywords: Mushroom, Apple Bagasse, Nutrition

Biography:

Marcela Viviana Filippi is a Chemical engineer and Safety and Hygiene Engineer. Since 2009 I have been a research professor at the Universidad Nacional de Río Negro. At present I am associate professor of the subjects of Transport Phenomena and Unit Operations in Food and Biotechnology Engineerings. From 2005 to 2012 I worked in the concentrated juice production industry. I have been the director of the Technology and Environment Production School since 2018 and as director of the Food Engineering career since 2017. I am doing a doctorate in Food Science and Technology at the Universidad Nacional del Sur, Bahía Blanca.