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SPROUTS, MICRO GREENS AND BABY LEAF: IMPROVING THE NUTRITIONAL QUALITY IN VEGETABLES

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Consumers are seeking better quality products, which differ from the products found in the traditional market, presenting clear advantages to our health. Sprouts are germinated seeds, usually in dark or low light conditions, high humidity and temperature until their cotyledons appear; whereas, micro greens are also seeds germinated having two fully developed cotyledons with or without the appearance of a rudimentary pair of true leaves. In the last few years, it has been discovered that these sprouts and micro greens are highly healthy with immense potential, being considered even as functional foods or super foods, but there is still limited scientific information. The objective therefore, of this work was to compare different conditions in the crop of sprouts, micro greens and baby vegetables of lettuce, carrots and zucchini grown in hydroponic systems and evaluate nutritional aspects. To carry out this work, three vegetables, lettuce, carrot and zucchini were evaluated as sprout, micro green, baby vegetable and commercial vegetable produced in hydroponics, with floating root and solid substrate, under two photo periods (long-day and short-day). Each species was affected differently by these conditions and its development was different. To evaluate nutritional aspects, a proximate analysis (moisture, ash, crude protein, ether extract, crude fiber and nitrogen free extract) was performed. In addition, total carotenoids and total polyphenols were analyzed, always resulting in higher values in sprouts and micro greens than baby and commercial vegetables. These preliminary results show a promising source of nutrients beneficial to our health in sprouts and micro greens and consider these immature stages of vegetables to be incorporated and consumed more frequently in our diet.

Biography

Maria Dolores Lopez Belchi developed her PhD in IMIDA in Murcia, Spain working with natural products extracted from plants and she has completed her PhD in Agricultural Chemistry from the University of Murcia (Spain) and Postdoctoral studies of functional ingredients from Nantes Atlantic College of Veterinary Medicine, Food Science and Engineering, France. She worked as a Professor of Chemistry at the University of Concepción. She published more than 30 papers in reputed journals and has been serving as a Director of Laboratory of Chemical Analysis in the Department of Crop Production. In recent years, she has worked on the study of active compounds extracted from berries or other vegetables and fruits with high impact on human health.

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