

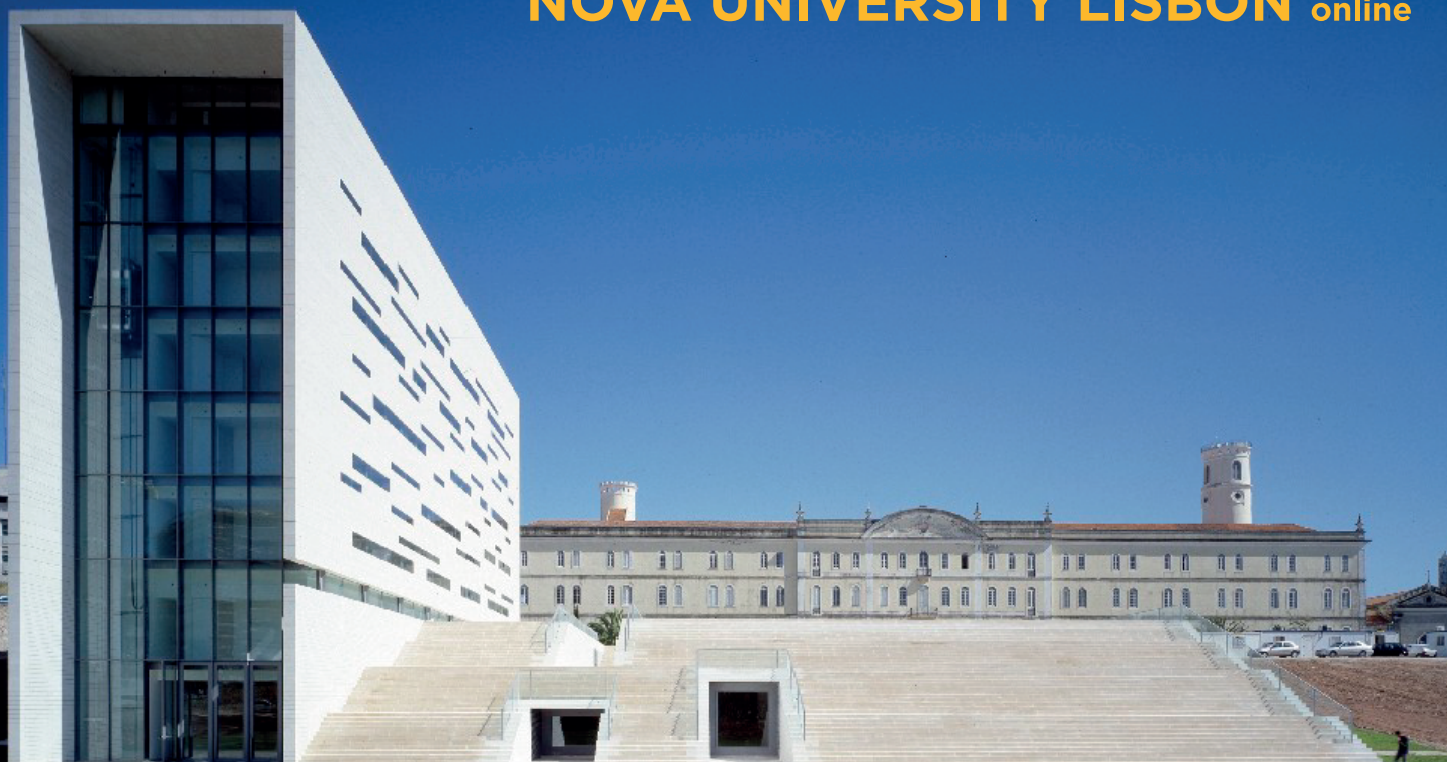
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358. Impact of vegetable oils on *Lacticaseibacillus rhamnosus* and *Bifidobacterium animalis* subsp. *lactis* growth

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Introduction: Studies on bioactive lipids have been increasing in the last years due to their proven health benefits: positive impact on the prevention of cardiovascular disorders, on the development of cognitive function, and more recently on the control of body weight and diabetes. Consequently, the feasibility of their incorporation in new functional products has gained a greater interest in the food industry. Alongside the technological challenges, the antimicrobial activity of some of these oils may constitute a potential barrier for their incorporation, for example in fermented foods.

Objective: Taking this into consideration, the aim of this work is the evaluation of the impact of different pomegranate, coconut, and avocado vegetable oils on *Lacticaseibacillus rhamnosus* and *Bifidobacterium animalis* subsp. *lactis* Bb12 growth.

Methods: For this purpose, both bacteria were grown in MRS (normal growth media), and in MRS supplemented with each of the vegetable oils at 1.5 % (v/v). The impact on growth, organic acids production, and glucose consumption was evaluated.

Results: The presence of either of the three vegetable oils did not affect the bacterial growth. Viable cell numbers reached 9.2 log CFU/mL and 8.1 log CFU/mL upon 24h of incubation for *L. rhamnosus* and *B. animalis* Bb12 respectively. For both bacteria, the presence of avocado and coconut oil appears to improve microbial growth.

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