

Technological impact on food.

Rashid Haq*

Department of Food Technology, State University of Bangladesh, Dhaka, Bangladesh

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Description

Nanotechnology has spread its wings across a wide range of fields. From first-generation passive nanomaterials to active nanotechnology and Nano systems, it's come a long way. Despite the fact that Nano food is still in its infancy, tiny particles are increasingly being used as carriers of antimicrobial polypeptides to prevent microbial deterioration of food quality. Assays for total phenolic content and antioxidant activity on micro plates reduce resources and time, making them a viable alternative to traditional procedures that are time-consuming, labour-intensive, and require huge volumes of reagents[1].

Discussion

The oil was tested for quality indices, fatty acid composition, pigments, colour, -tocopherol and phenolic content, bitter index, oxidative stability, and organoleptic qualities. Irrigation had no effect on the metrics used to classify olive oil into different commercial grades. Only the content of polyphenol and o-diphenol, as well as the bitter index and oxidative stability, were measured. Oils were tested for fatty acid composition, pigments, colour, polyphenol content, and stability. The findings suggest that managed deficit irrigation promotes fruit ripening; after harvest, oil yield increased when water supply was reduced, most likely due to the olive's lower water content. Irrigation treatments had little effect on the acidic content. Irrigation has an impact on pigment concentration. By using modified atmospheric packing, sensory quality deterioration was delayed and bacterial growth, as well as increases in pH, TVB, and hypoxanthine levels, was minimized. Lipid oxidation was higher in 20 and 30 percent O₂ gas packages than in 10 percent O₂ gas packages. The lowest TBARS readings were seen in vacuum-packed fillets. In conclusion, when compared to the control group, MAP resulted in a considerable increase in shelf-life. Arsenic is a poisonous metalloid that can be found in the air, water, and soil. Organic arsenic is generally less hazardous than inorganic arsenic. Arsenic also causes morphological abnormalities in the mitochondria's integrity. The susceptibility of cells to arsenic is increased by cascade mechanisms of free radical generation originating from the superoxide radical, along with glutathione-depleting chemicals [2-4].

Conclusion

Nanoliposomes are small vesicles that include one or more aqueous compartments and are made up of phospholipid bilayers. Their one-of-a-kind features have sparked a slew of

applications in a variety of scientific and technological domains. Nanoliposomes can deliver targeted bioactive substances, such as food components and nutraceuticals, at the correct time and in the right place. The effectiveness of ozone in the degradation of aflatoxins in pistachio kernels and crushed pistachios was investigated in this study. After the ozonation procedures, the fatty acid content of pistachios did not alter considerably. Sweetness, rancidity, flavour colour, and overall palatability of ozonated and non-ozonated pistachio kernels did not differ significantly. Changes those are significant. The proteolytic activities of splenic extract from three tuna species were investigated, including skipjack tuna, yellow fin tuna and tongol tuna. When casein was utilised as a substrate, the optimal activity of splenic extract from all tuna species was at pH 9.0 and 55°C. Yellow fin tuna had the most activity of all these tested species.

References

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*Correspondence to

Dr. Rashid Haq

Department of Department of Food Technology

State University of Bangladesh

Dhaka

Bangladesh

E-mail: Rashidhaq@yahoo.com