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Antioxidants from macroalgae: potential ap n health and nutrition

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ABSTRACT

The underlying physiology of algal antioxidant compounds is reviewed in the context of seaweed biology and utilization. The application of seaweed antioxidants in foods, food supplements, nutraceuticals and medicine is considered from the perspective of benefits to human health. We advocate that direct consumption of seaweed products for their antioxidant composition alone provides a useful alternative to non-natural substances, while simultaneously providing worthwhile nutritional benefits. Economic utilization of seaweeds for their antioxidant properties remains in its infancy. This review provides examples ranging from laboratory studies through to clinical trials where antioxidants derived from seaweeds may provide major health benefits that warrant subsequent investigative studies and possible utilization.

Key words: antioxidants; homeostasis; human health; oxidative stress; ROS