

Chapter 23

Wastewater Cultivated Macroalgae as a Bio-resource in Agriculture



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Abbreviations

DW Dry Weight
IMTA Integrated-Multi-Trophic-Aquaculture
TN Total Nitrogen

23.1 Introduction

Macroalgae and their extracts have a long tradition of being used in the coastal agriculture as the soil conditioners and enhancers of crop productivity (Nabti et al. 2016). Traditionally, seaweeds have been collected from the beach or harvested from the sea. The raising demand for their use for food (Shama et al. 2019) or interesting extracts (agar, alginate, carrageenin), however, resulted in their controlled production, mainly in the coastal seas and in lesser extent in the land-based systems.

Algae cultivation in the wastewater as the parallel (1) bioremediation and (2) biomass production presents an innovative industrial ecology model (Lawton et al. 2017). Nutrients, organic carbon and minerals that would otherwise be lost by the

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