



SEAMARK DELIVERABLE 5.2: ALGINATE AND FUCOIDAN GENERAL FRACTION GREEN PRODUCTION PROCESS FROM SACCHARINA LATISSIMA

Public summary of
confidential report

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Summary:

This document describes the new outcomes in fucoidan extraction by comparing different extractions and the upscaling plan to match the future requirements. The initial protocol considered (consisting in a first acid extraction step followed by an alkaline one) seemed not being optimised, in terms of fucoidan yields (32%), on the French cultivated seaweed whereas good yields were obtained on the Faroe's biomass (>60%). A different approach was done on the French seaweed with a screening of acidic conditions (different acids and concentrations) but also a single alkaline extraction step. Fucoidan extraction yields could be increased to 60% with a single extraction step. Pilot scale trials (around 100 kg biomass per extraction condition) are now required to compare the two steps protocol (acid followed by alkaline) with a single alkaline step on the *Saccharina latissima* biomasses cultivated in the Faroe Islands and France.

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