

PROTEIN FROM SEAWEED – EXTRACTION AND EVALUATION

CBIO WEBINAR
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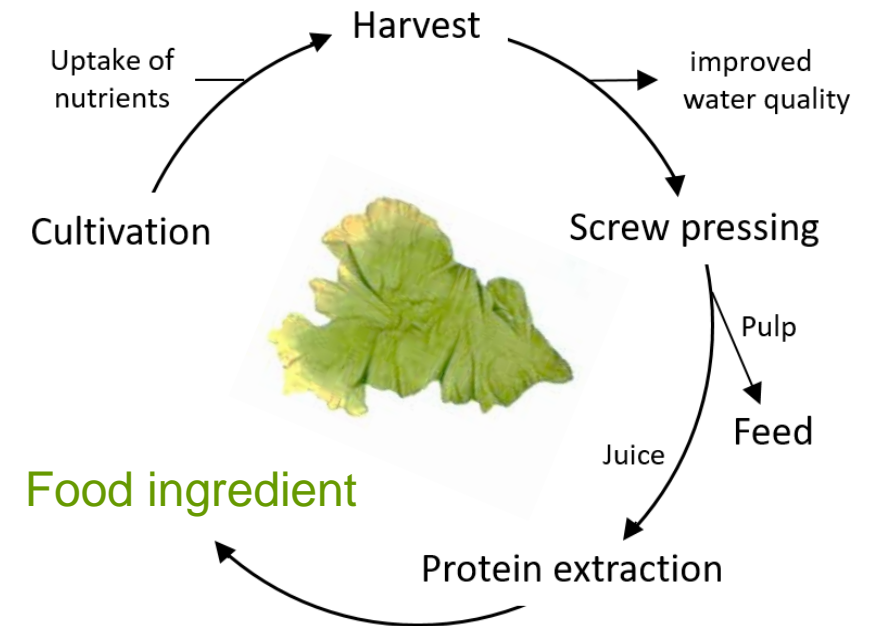
WHY SEAWEED AS A PROTEIN SOURCE?

Protein content *Ulva* sp. ~10-25% (DW)¹

- Poor protein digestibility of raw unprocessed *Ulva*²

Why bother?

- Increasing demand for food
- Essential amino acids
- Extraction improve digestibility and bioavailability
- Grow in saltwater, high nutrient uptake



¹Fleurence, J., 1999. Seaweed proteins: biochemical, nutritional aspects and potential uses. *Trends in food science and technology*, 10(1), pp. 25-28.

²Bleakley, S. and Hayes, M., 2017. Algal proteins: extraction, application, and challenges concerning production. *Foods*, 6(5), p.33.

PROTEIN EXTRACTION

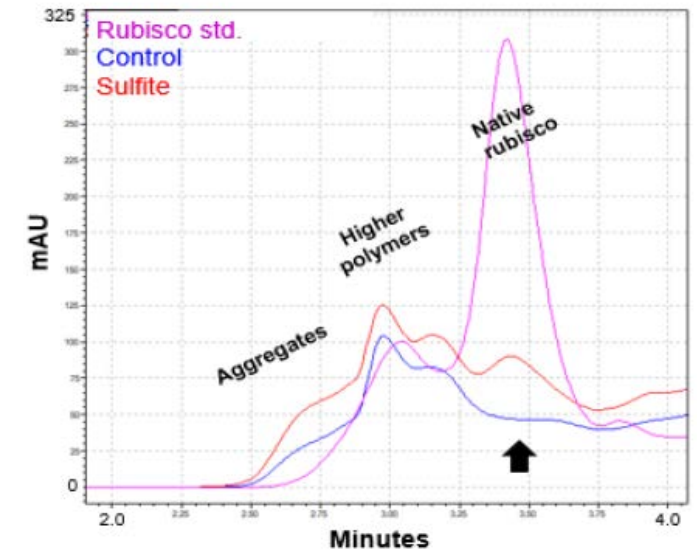
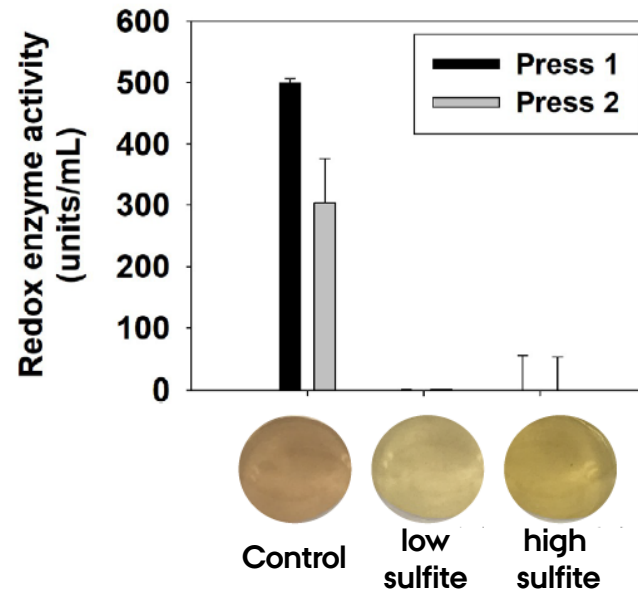
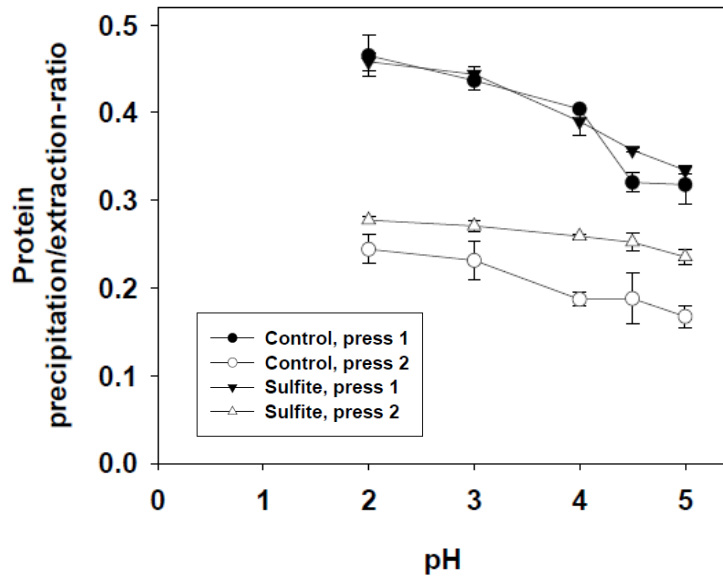
Extraction methods needs optimization

- Protein yield >< protein quality
- Antioxidant treatment can increase quality

Alkaline extraction



Mechanical press







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