

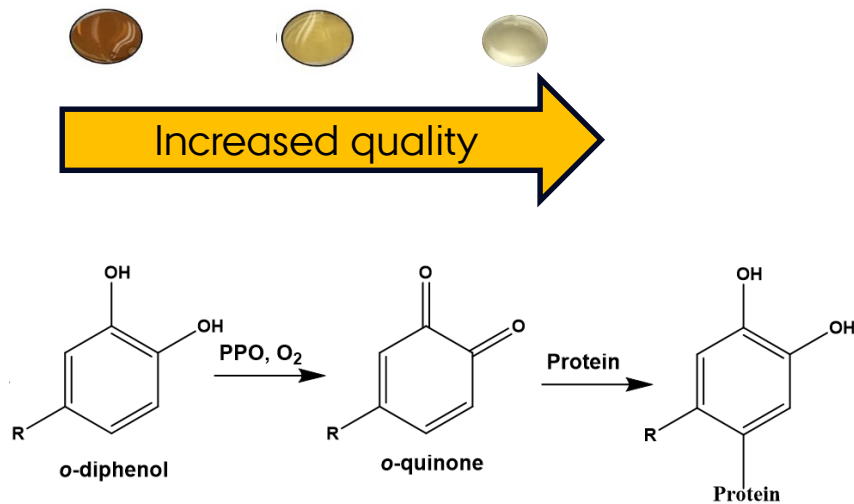
# FOOD PILLAR

Trine Kastrup Dalsgaard

# FOOD QUALITY - PAST

PAST:

The food pillar focused help understanding chemistry and molecular interaction in the matrices



PPO: polyphenol oxidase



International Journal of Food Science and Technology 2020

Original article






## Improved solubility of proteins from white and red clover – inhibition of redox enzymes

Bashar Amer,<sup>1</sup>  Louise Juul,<sup>1,2</sup>  Anders Hauer Møller,<sup>1,2,3</sup>  Hanne Søndergård Møller<sup>1</sup> & Trine Kastrup Dalsgaard<sup>1,2,3\*</sup> 

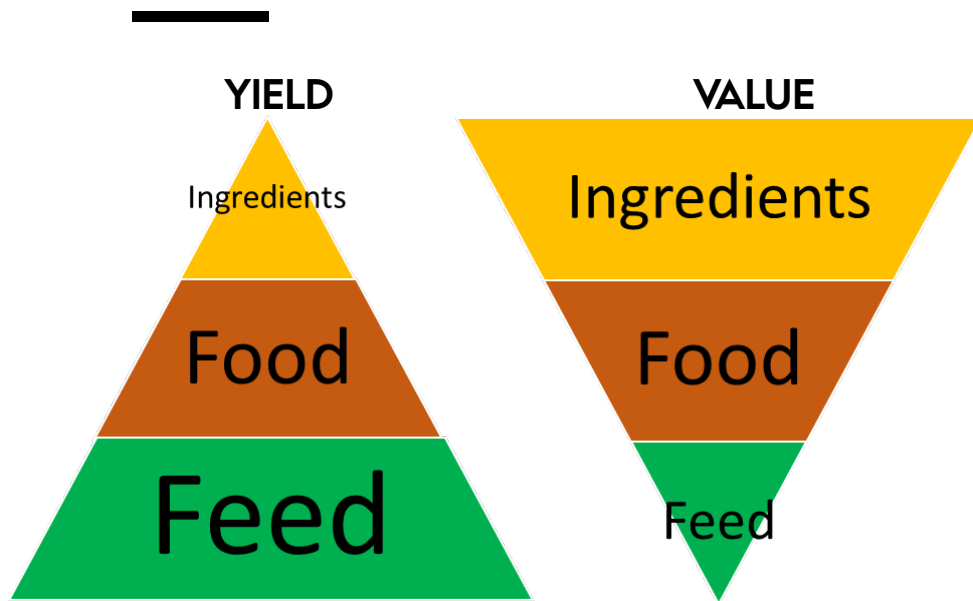
Journal of Applied Phycology (2021) 33:545–555  
<https://doi.org/10.1007/s10811-020-02285-z>



Protein solubility is increased by antioxidant addition during protein extraction from the green macroalga, *Ulva* sp.

Louise Juul<sup>1,2</sup>  • Anders Hauer Møller<sup>1,2,3</sup>  • Annette Bruhn<sup>2,4</sup>  • Søren K. Jensen<sup>2,5</sup>  • Trine K. Dalsgaard<sup>1,2,3</sup> 

# BIOREFINARY - WHERE DID WE GO?



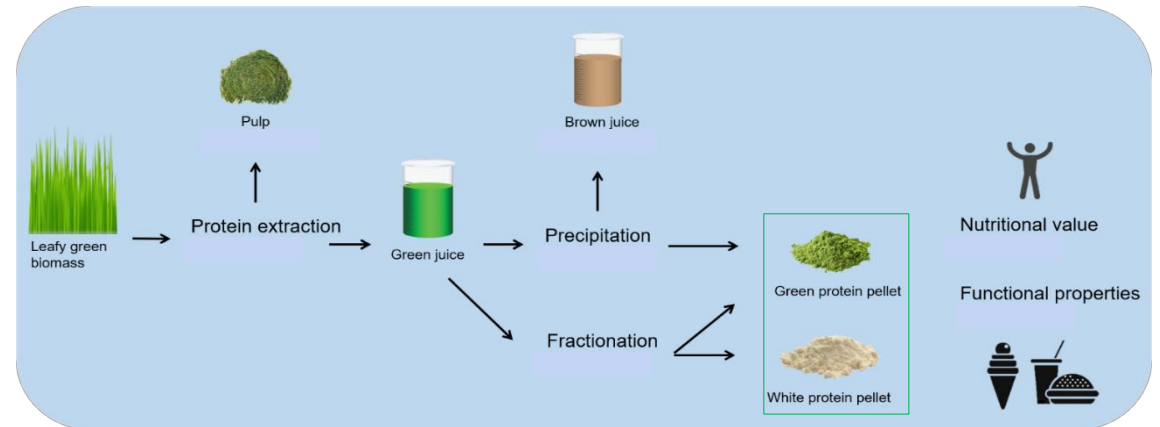
JOURNAL OF  
**AGRICULTURAL AND  
FOOD CHEMISTRY**

pubs.acs.org/JAFC

Review

## 1 Biorefinery of Green Biomass—How to Extract and Evaluate High Quality Leaf Protein for Food?

2  
3 Anders Hauer Møller, Marianne Hammershøj, Natalia Hachow Motta dos Passos, Hartono Tanambell,  
4 Lene Stødkilde, Morten Ambye-Jensen, Marianne Danielsen, Søren K. Jensen, and Trine K. Dalsgaard\*



Møller et al., 2021: <https://doi.org/10.1021/acs.jafc.1c04289>

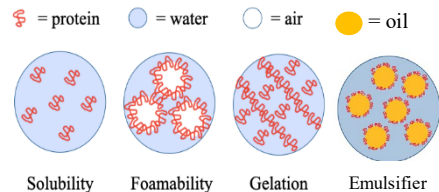
Contents lists available at ScienceDirect

**Food Hydrocolloids**

ELSEVIER journal homepage: [www.elsevier.com/locate/foodhyd](http://www.elsevier.com/locate/foodhyd)

Increased solubility and functional properties of precipitated Alfalfa protein concentrate subjected to pH shift processes

Signe H. Nissen<sup>a,b</sup>, Jesper M. Schmidt<sup>a</sup>, Sandra Gregersen<sup>a,c</sup>, Marianne Hammershøj<sup>a,b,c</sup>, Anders H. Møller<sup>a,b,c</sup>, Marianne Danielsen<sup>a,b,c</sup>, Lene Stødkilde<sup>b,d</sup>, Caroline Nebel<sup>a</sup>, Trine K. Dalsgaard<sup>a,b,c,\*</sup>



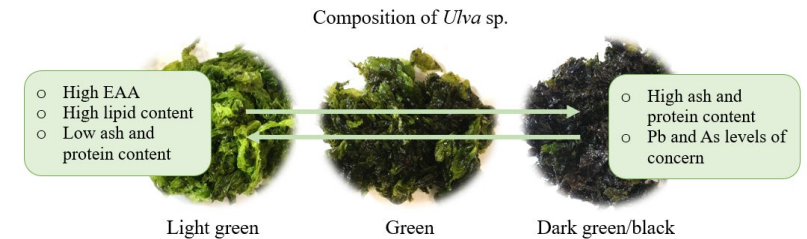
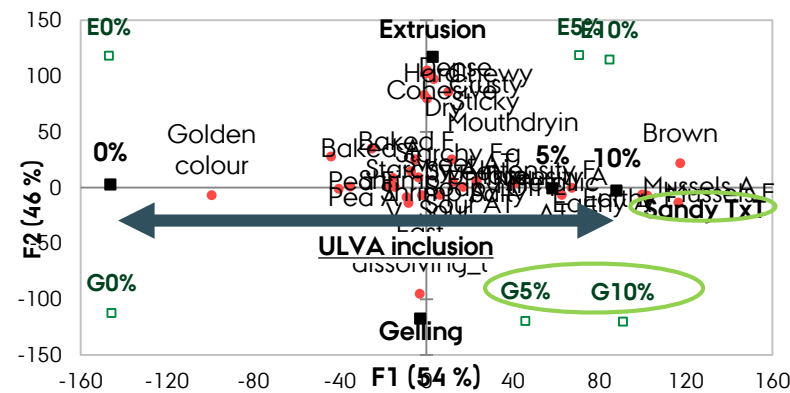
# FOOD QUALITY -PRESENT

Proof-of-concept (TRL3) for biorefinery strategy of alfalfa for food

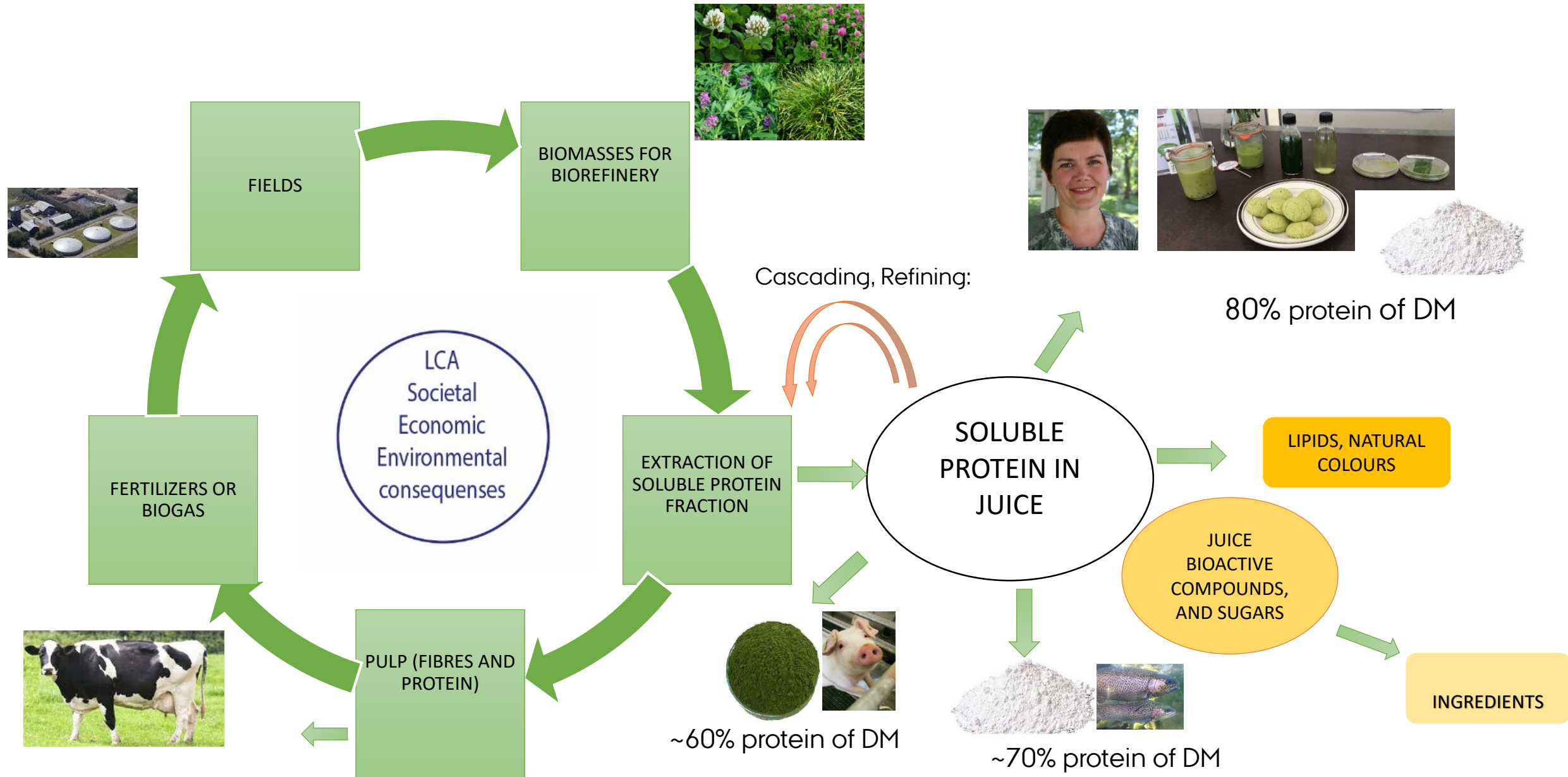
- White protein isolate with high protein digestibility (tested *in vitro*)
- Started scaling to pilot/demo at Campus Viborg

Proof-of-concept for food application with seaweed (*Ulva* spp.) protein concentrate

- Still a way to go considering biorefinery and sensory performance



# FUTURE: CASACING – VALURAZITION OF ALL SIDE STREAMS





AARHUS  
UNIVERSITY