



HAL
open science

LabCom SEASIDES: Development of screening and understanding of biostimulants mode of action in stress condition

Cathleen Mirande-Ney, Franck Hennequart, Jeremy Brebion, Sophie Bernard, Patrice Lerouge, Azeddine Driouich, Isabelle Boulogne

► To cite this version:

Cathleen Mirande-Ney, Franck Hennequart, Jeremy Brebion, Sophie Bernard, Patrice Lerouge, et al.. LabCom SEASIDES: Development of screening and understanding of biostimulants mode of action in stress condition. 5th Biostimulant World Congress, Nov 2021, Hollywood-Florida, United States. hal-03910997

HAL Id: hal-03910997

<https://normandie-univ.hal.science/hal-03910997>

Submitted on 27 Jan 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

LabCom SEASIDES: Development of screening and understanding of biostimulants mode of action in stress condition

C. Mirande-Ney¹, F. Hennequart², J. Brebion², S. Bernard¹, P. Lerouge¹, A. Driouich¹ and I. Boulogne¹

¹Normandie University, UNIROUEN, Glyco-MEV EA4358, SFR NORVEGE FED 4277, 76821 Mont-Saint-Aignan, France

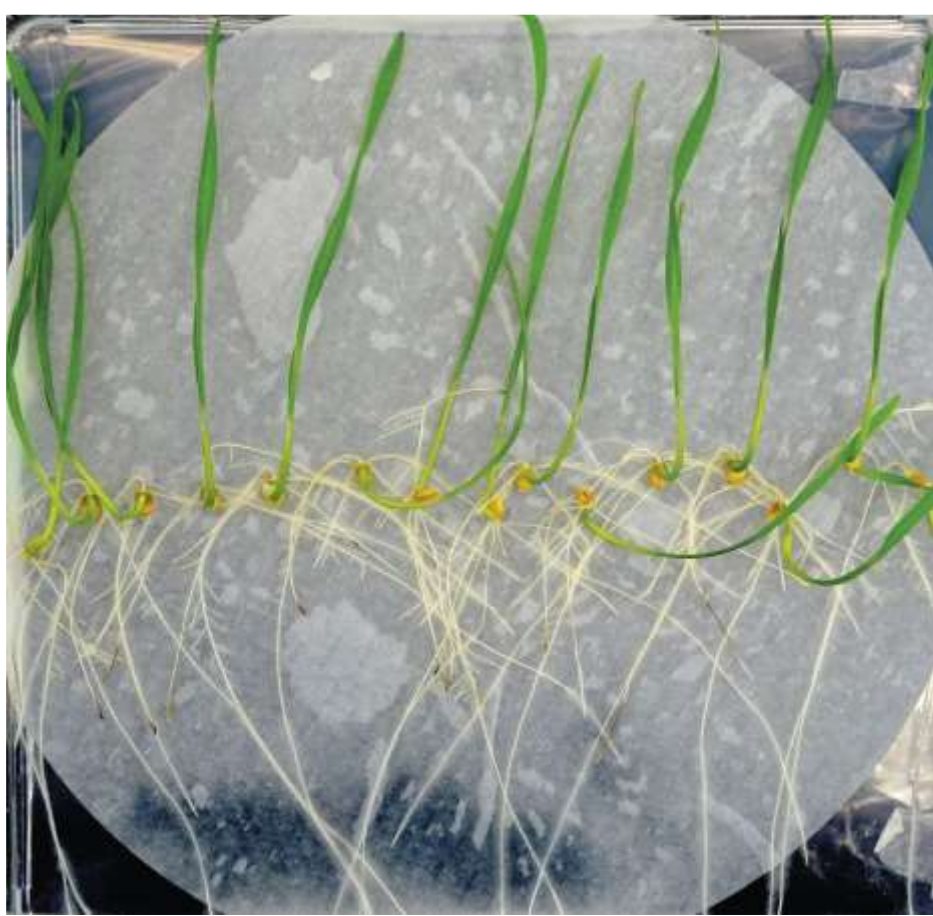
²ALGAIA R&D Center, 91 Rue Edouard Branly, 50 000 St Lô, France

The LabCom SEASIDES - **SEA**weeds extracts in **Sust**ainable plant **DE**fense and **bio**Stimulation aims to set up a collaborative research and development structure between the Glyco-MEV laboratory (Glycobiology and Plant Extracellular Matrix - EA4358) at the University of Rouen Normandy and ETI ALGAIA.

The objectives of the SEASIDES research:

- i. Increase knowledge on marine bio-ingredients,
- ii. Enhance the fundamental knowledge on plants by developing new diagnostic tools and new biostimulants in response to abiotic stresses and
- iii. Promoting agroecology in plant production (e.g., reduction of the use of agricultural chemicals).

In controlled and semi-controlled conditions



In vitro



In plant pots

Phenological traits

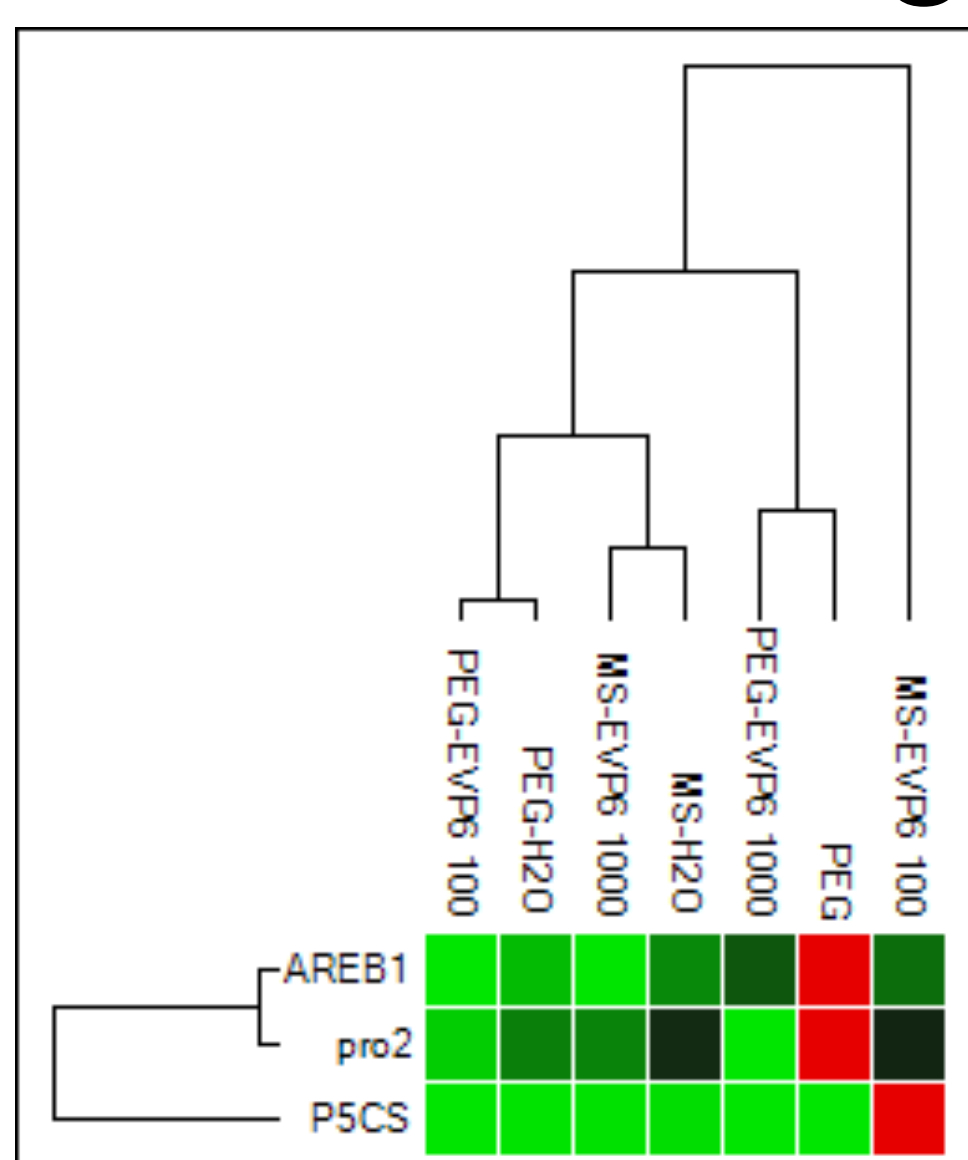
- Root and aerial growth
- Chlorophyll content
- Biomass measurement
- Total leaf number
- Leaf surface
- ...



Differents approaches

Gene expression

- LEA genes
- Proline catabolism genes



Cellular traits

- Cell wall alterations

