



Welcome to AQUACOMBINE – POST! This quarterly newsletter informs you about the progress of the AQUACOMBINE project. Get an overview of the current project status, meet the people behind the scenes and let yourself be conquered by the world of halophytes.

AQUACOMBINE Team



Halophytes go circular – Salt-tolerant plants for food, feed, bio-compounds and bioenergy.

Project insights and results of AQUACOMBINE circular approach.

Meet the project on 22nd March 2022, 16:00 - 17:30 CET, on ZOOM and get an answer to: "How

to cultivate salt-tolerant plants species such as Salicornia or Crithmum to obtain high yields for biorefinery processes?" A view at: "Promising results on health effects for shrimp and sea bass by combining aquaculture and Salicornia farming". And an answer to: "How to close the loop of the halophyte biorefinery by conversion into biogas and biochar?"

Take part and join the presentations. If you want to go one step ahead and like to share your experience and needs with us, participate also in the breakout sessions: AQUACOMBINE Project, Halophyte cultivation, Aquaculture farming and Halophyte biorefinery.

Take a look at the <u>agenda</u> or follow this <u>link</u> to register directly. Participation is free of charge.



How to use salt-tolerant plants for a circular approach that combines aquaculture, farming and bio-processing to produce food, feed, bio-compounds, and bioenergy?

AQUACOMBINE is looking for answers. Therefore, AQUACOMBINE project will create a new circular industry with co-production of food, feed, bio compounds, and bioenergy from salttolerant plants such as Salicornia or Crithmum

with very little or no production of waste streams.

Would you like to get a brief overview of the AQUACOMBINE project? Then download the AQUACOMBINE presentation and dive in.

Meet the partners!

To bring AQUACOMBINE to success 17 partners from 7 countries with different expertise are working together on this four-year project. In this issue we will introduce the Université catholique de Louvain (UCLovain) their knowledge, experience, work and hopes for the project. AQUACOMBINE Post#3 interviewed Iwona Cybulska, Assistant Professor at UCLouvain Faculty of Bioscience Engineering/Earth and



Life Institute, Belgium.

"Extraction and purification of protein and lipid fractions from the green juice of the halophyte plants."

Iwona Cybulska, Assistant Professor at UCLouvain Faculty of Bioscience Engineering/Earth and Life Institute, Belgium.

Iwona the four-year project began in October 2019. After two years, can you say what your most surprising result has been so far?

What has surprised us the most, is how different the plants are from everything we were used to work with. Starting with the challenges during the analyses of chemical composition, through the green fractionation and finishing with the protein and lipid extraction. The reason for these challenges to occur is the extremely rich chemical composition of the plants, which is dependent on the harvesting season and cultivation. The variability opens many new possibilities, but it also causes troubles during process optimization.

Read the whole interview...



The world of halophytes

Glasswort, Common Glasswort, Marsh Samphire, Chicken Claws, Sea Asparagus, Sea Pickle, Salicornia europea has many names. When you look at Salicornia, it is immediately clear where names like Sea Asparagus or Chicken Claws come from. But why is Salicornia also called glasswort? Is this because of its transparent appearance or is there more to it?

The ash of Salicornia is sodium rich. Therefore, Salicornia is once used to manufacture glass. Soda from Salicornia was used as a flux this improved the flowability and leads to a clear glass.

Through the AQUACOMBINE post we take pleasure in sharing ongoing progress and contributions to AQUACOMBINE developments, so AQUACOMBINE welcomes anyone interested to

