



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



AQUACULTURE set up ready to welcome the fingerlings.

Due to Corona, two years have passed since the consortium last met. In October, the time had finally come. The AQUACOMBINE partners met two days in Esbjerg to present and discuss their project progress.

"It was so nice, not only seeing the project

progress even the personal contact makes this meeting so special." Sabine Höfel, Food-Processing Initiative e.V.

The last two years have been full of experience and insights into the Halophyte world and some of the results are very promising, such as research on the cultivation of Salicornia in an aquaponic system, protein, and polyphenol content, use in food and feed, health benefits for fish and human skin. Also, the aquaculture facility is ready to welcome the juvenile fish.

Read more...



Optimal growing conditions for Halophyte plants!

Do all salt-tolerant plant species prefer saline cultivation conditions?

What are the optimal growing conditions that lead to the production of as much biomass as possible on the one hand and to the provision of an optimal composition for the respective user on the other?

To answer this question, the team of the Gottfried Wilhelm Leibniz Universität Hannover is using its expertise in studying

the physiological status of plants and analyse halophyte cultivation patterns. Read more...

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 each issue we will introduce two of them, their knowledge, experience, work and hopes for the project. AQUACOMBINE Post#2 interviewed Prof. Dr. Jutta Papenbrock from Gottfried Wilhelm Leibniz Universität Hannover, Germany, and Io Antonopoulou from Luleå University of Technology, Sweden.



"Cultivation of halophytes and analysis of the physiological status of the plants".

Dr. Jutta Papenbrock from Gottfried Wilhelm Leibniz Universität Hannover, Germany

Prof. Papenbrock, looking back on the first two years of the project what is your most surprising result?

Salicornia spp. probably surprised me the most. Genetic

characterisation and identification have shown that the variability within the genus Salicornia is broader than we thought. With this variability, the morphological and biochemical composition also varies. On the one hand, this offers more aspects to be studied. On the other hand, I think it will be important to develop a variety of different Salicornia cultivars through modern breeding approaches that achieves the best and consistent results as a crop plant species for defined applications in the future. <u>Read the whole interview...</u>



"Synthesize novel bioactive esters based on precious phenolic compounds that are found in the halophyte Salicornia plants." Io Antonopoulou from Luleå University of Technology, Sweden

Io, if you could wish for something for the project, what would it be and why?

I wish that the project's results will be applied fast in the near future towards developing smart integrated aqua cultures and halophyte

cultivation within Europe. Halophyte plants have been known in folk medicine to have many beneficial effects on human health. A holistic approach for their valorisation leaving zero waste could be a major step towards achieving a carbon zero economy. Moreover, halophytes are resilient plants that can be grown in remote areas with high salinity, enabling land use and limiting the need for irrigation. <u>Read the whole interview...</u>



The world of Halophytes!

The fresh tips of Salicornia, one of the most known halophytes, are a delicacy and can be eaten raw and cooked. And it does not only taste good it is also packed with minerals and vitamins like A, B1, B15, C, and D.

As it might be time to eat more of this phantastic plant we would like to share a recipe

2 servings: ca. 125 g Salicornia fresh tips cleaned, 250 - 300 g spaghetti cooked, $\frac{1}{2}$ cup of cooking water, 1 glove garlic finely chopped, 2 knobs of butter or 2 tbsp. or

olive oil, ca. 10 cherry tomatoes cut in half, fresh grinded black pepper, or red chili cut in small rings for seasoning

Heat one knob of butter or one tbsp. olive oil in a fry pan, add garlic and fresh tips of Salicornia, cook on low heat for 2 minutes, add spaghetti and cooking water, add tomatoes and rest of butter/oil mix gently, give it another 2 minutes and season it well with black pepper or chilly. Enjoy!

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

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