



Scientists excited about innovation

Dutch company achieves breakthrough in algae technology

Evodos, a Dutch company, has developed a very energy-efficient centrifuge to extract algae from water. This method is a breakthrough in harvesting and concentrating different strains of algae. The low energy consumption allows for a positive energy balance, paving the way for large-scale production of biodiesel from algae. Leading scientists are very excited about this innovation.

The Evodos technology enables the extraction of a solid algae cake with a dry solid content of 31,5%. The Evodos technology consists of two steps: first, most of the water in which the algae are growing is removed and next the algae are transformed into a dry paste.

One kilogramme of algae can produce about 20 MJ (mega joule) of energy. The Evodos method uses only 1/3 of that energy, thus creating a positive energy balance. No one has succeeded before in harvesting algae with a positive energy balance.

Energy consumption is an important element in harvesting algae, but another key aspect is preventing the algae from getting damaged (shearing). And also, the water from which the algae are extracted should be suitable for re-use. The Evodos technology ticks all these boxes.

The Italian professor Mario R. Tredici, of the Department of Agricultural Biotechnology at the University of Florence, is very enthusiastic about the new technology: "Very interesting. It seems that you are able to harvest and concentrate Nannochloropsis into a paste with dry solid content of over 30% with an energy expenditure of 2.5 MJ/kg. If this is the case it is a great achievement. Congratulations!"

"I've seen a wide range of harvesting tools and your new centrifugal technology seems excellent due to its ability to harvest small Algae with high efficiency", says Mark Edwards, author of 'Green Algae Strategy', which was awarded the 2009 IPPY Best Science Book.

Evodos has established a subsidiary, Evodos Algae Technologies, for the commercialisation and marketing of the innovative technology.

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