

Financing by industry doesn't influence alcohol research

Studies financed by the alcohol industry don't come up with different results concerning health effects, discovered Annick van Soest and her colleagues at the Beer and Human Nutrition Research Institute. The researchers based their study on a total of 386 observational studies used in establishing international alcohol guidelines, which looked at the effect of moderate alcohol consumption on health. The researchers found that the source of financing had no effect on the studies. Van Soest: 'We saw for example that studies on moderate alcohol consumption and death reached the same conclusions regardless of whether they were financed by the alcohol industry. That was true of all the other health outcomes we looked at. It does not appear that the alcohol industry has withheld negative results. Of course it is important to keep a critical eye on the way research is done.' TL

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Healthy algae-based fish feed could be cheaper

Algae for use in aquaculture can be produced much more cheaply. Specifically, more efficient use of light in algae reactors could cut costs, claims PhD researcher Pieter Oostlander, who got his doctorate on 6 October.

Oostlander did tests using the alga *Rhodomonas* sp. working with aquaculture companies in Zeeland Province. They use the algae as fish feed in the farming of turbot and oysters. *Rhodomonas* sp. is suitable for fish feed because it produces fish oil with the

'With cheaper fish feed, farmed fish can compete better with wild fish' right proportion of omega-3 fatty acids.

The aquaculture companies have a choice of two different reactors

for growing algae in. They use traditional bubble column reactors – large plastic bags two metres high and filled with water and algae, which they blow air though. And they use modern tubular reactors, horizontal glass tubes. Oostlander compared these two production systems combined with two different kinds of light: lamps in an enclosed space, and sunlight in a greenhouse.

He calculated that the current production costs of the algae come to between 300 and 600 euros per kilo of algae. 'The traditional bubble column is cheaper to buy than the advanced tubular reactor, but it also produces much smaller quantities of algae per reactor volume.' In the end, this makes the tubular reactor the cheaper option per kilo of biomass, claims Oostlander – both when using artificial light and when using sunlight.

He also investigated how production costs could be reduced. The biggest saving can be made if the algae convert light into biomass more efficiently. Increasing the light can reduce the costs per kilo of algae by 30 per cent. The growers can also save on labour costs and optimize the temperature in the algae reactors to boost the yield. With these measures, the cost price goes down to 100 to 200 euros per kilo of algae. 'At the moment, farmed fish is more expensive than wild fish from the sea, says the PhD graduate. 'With cheaper fish feed, farmed fish can compete better with wild fish, which makes fish consumption more environmentally friendly.' AS

Algenreactor van AlgaePARC. Foto WUR

