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Use of herbs and spices to increase the productivity of microalgae

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Commercial production of microalgal biomass is impeded by low growth rates and contamination issues. Herbs and spices are known to suppress microbial growth. Selected herbs and spices were used to promote the growth of *Chlorella sp*. and suppress contaminations. Both aqueous extract and powder form of herbs and spices were tested. Aqueous extracts of herbs and spices were in general growth-promoting whereas those in the form of powder were growth-inhibiting. Fatty acid and carbohydrate contents were also found to increase with the introduction of aqueous extracts of herbs and spices. The proposed novel strategy offers improved microalgal productivity by increasing the growth rate of microalgae and reducing culture crashes.

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