

Sustainable production of Biologically Active Molecules of Marine Based Origin

Allewaert, C., Verween, A., and Vyverman, W.*
 • Protistology and Aquatic Ecology, Ghent University, Belgium
 • celine.allewaert@ugent.be



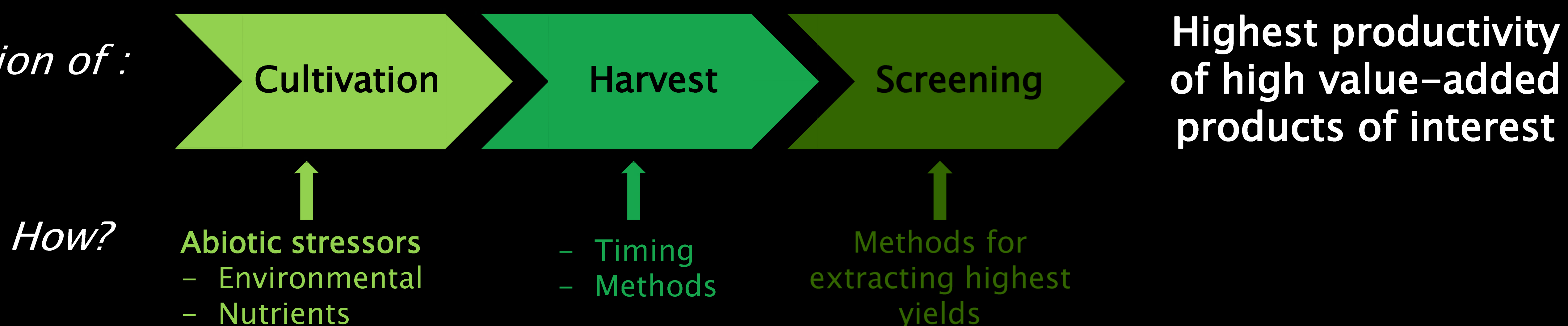
BAMMBO objectives

Provide innovative solutions to overcome existing bottlenecks associated with culturing marine organisms (algae, sponges, bacteria and fungi)

For sustainable production of high yields of value-added products for pharmaceutical, cosmetic and industrial sectors.

Ghent University objectives: MICROALGAE

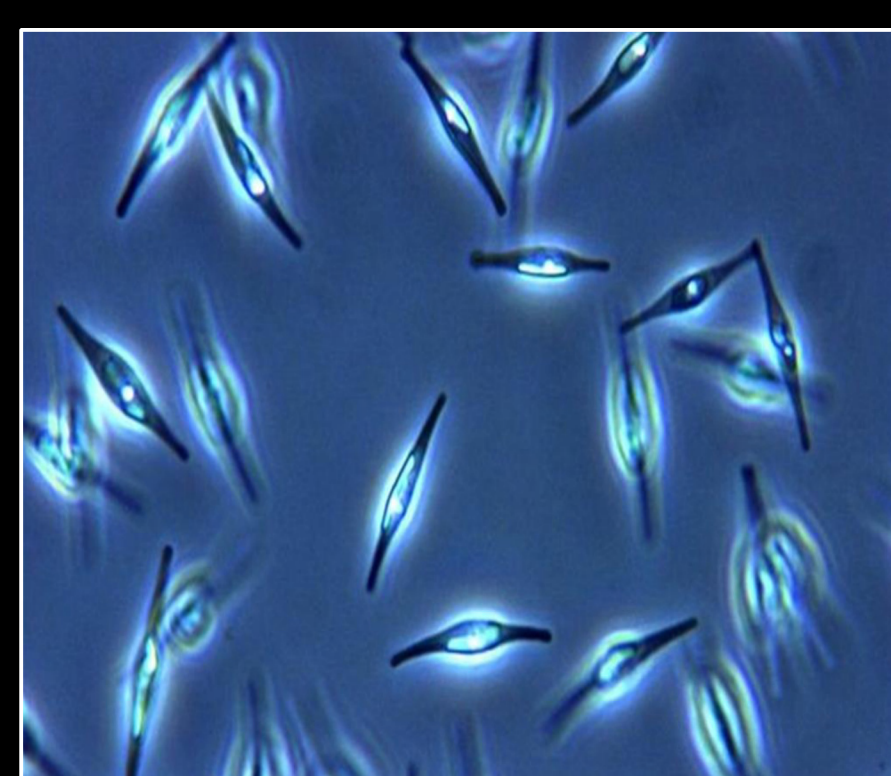
Optimalisation of:



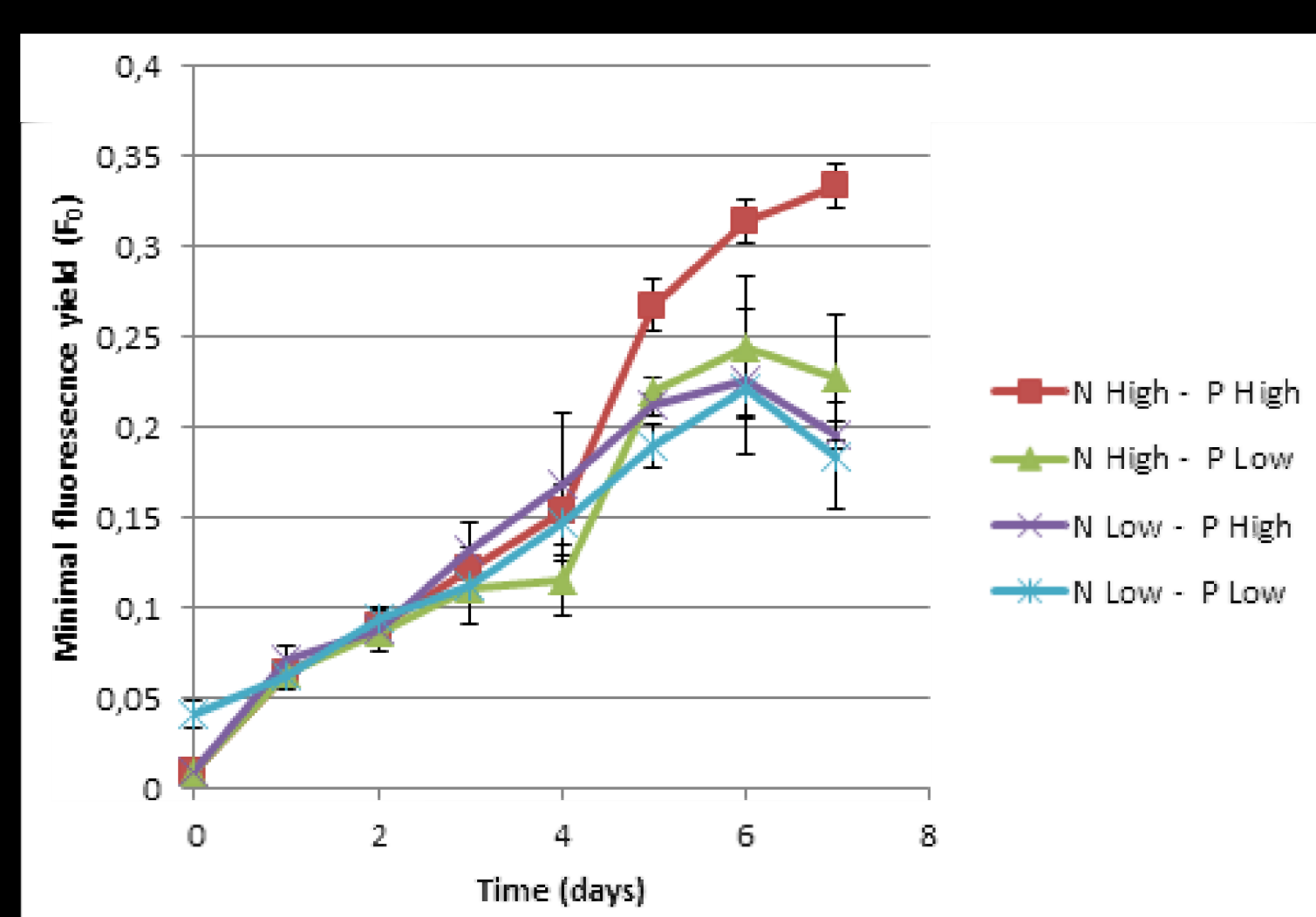
Case studies:

1. *Phaeodactylum tricornutum*

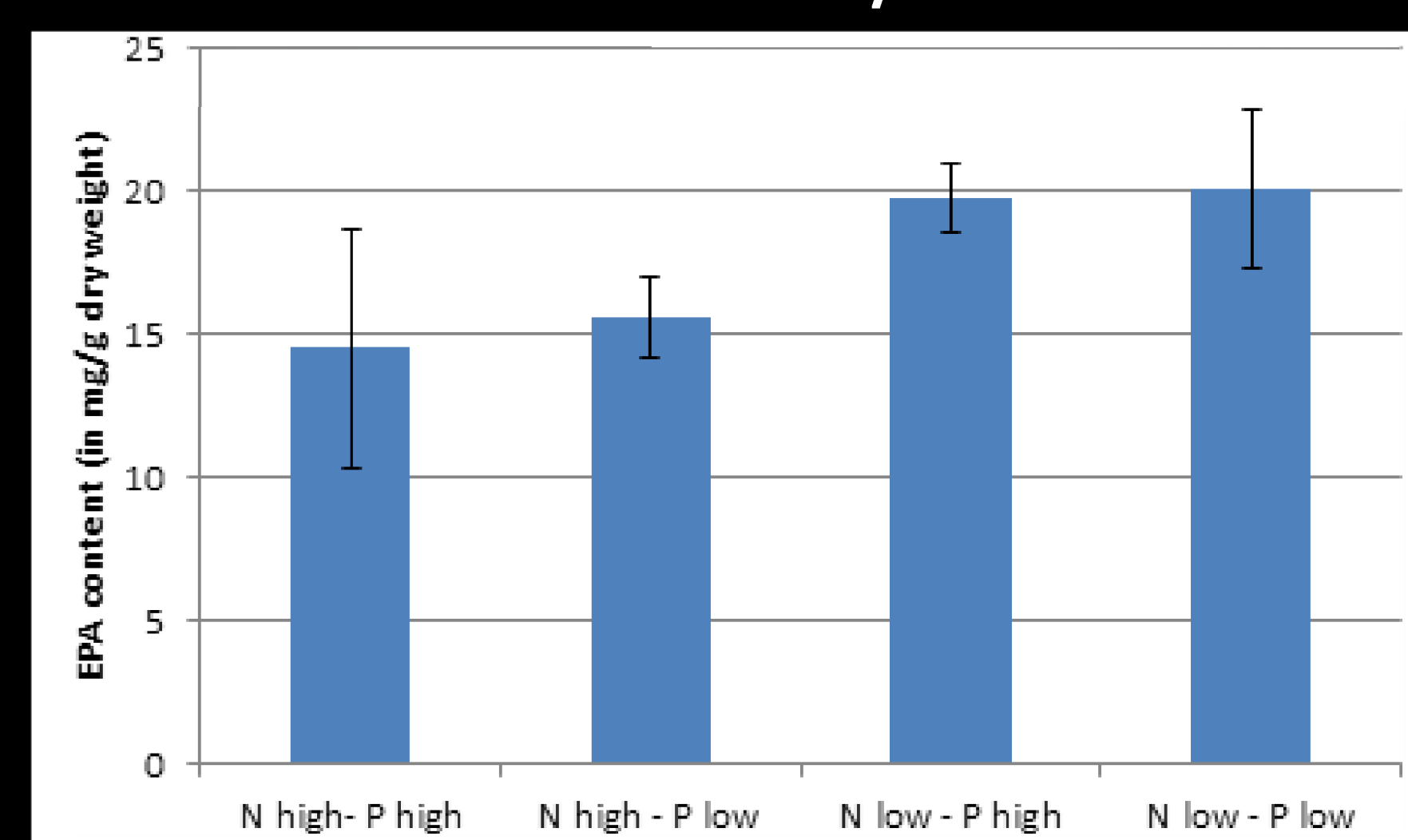
Effect of nitrate and phosphate



Growth:



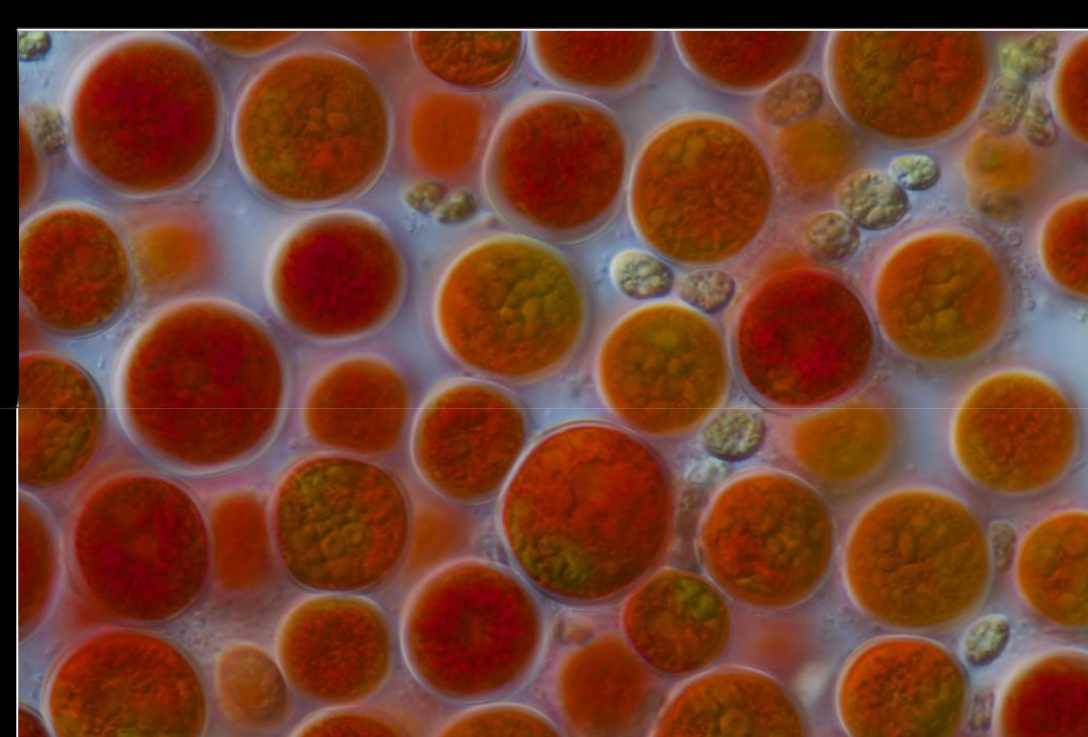
EPA production:



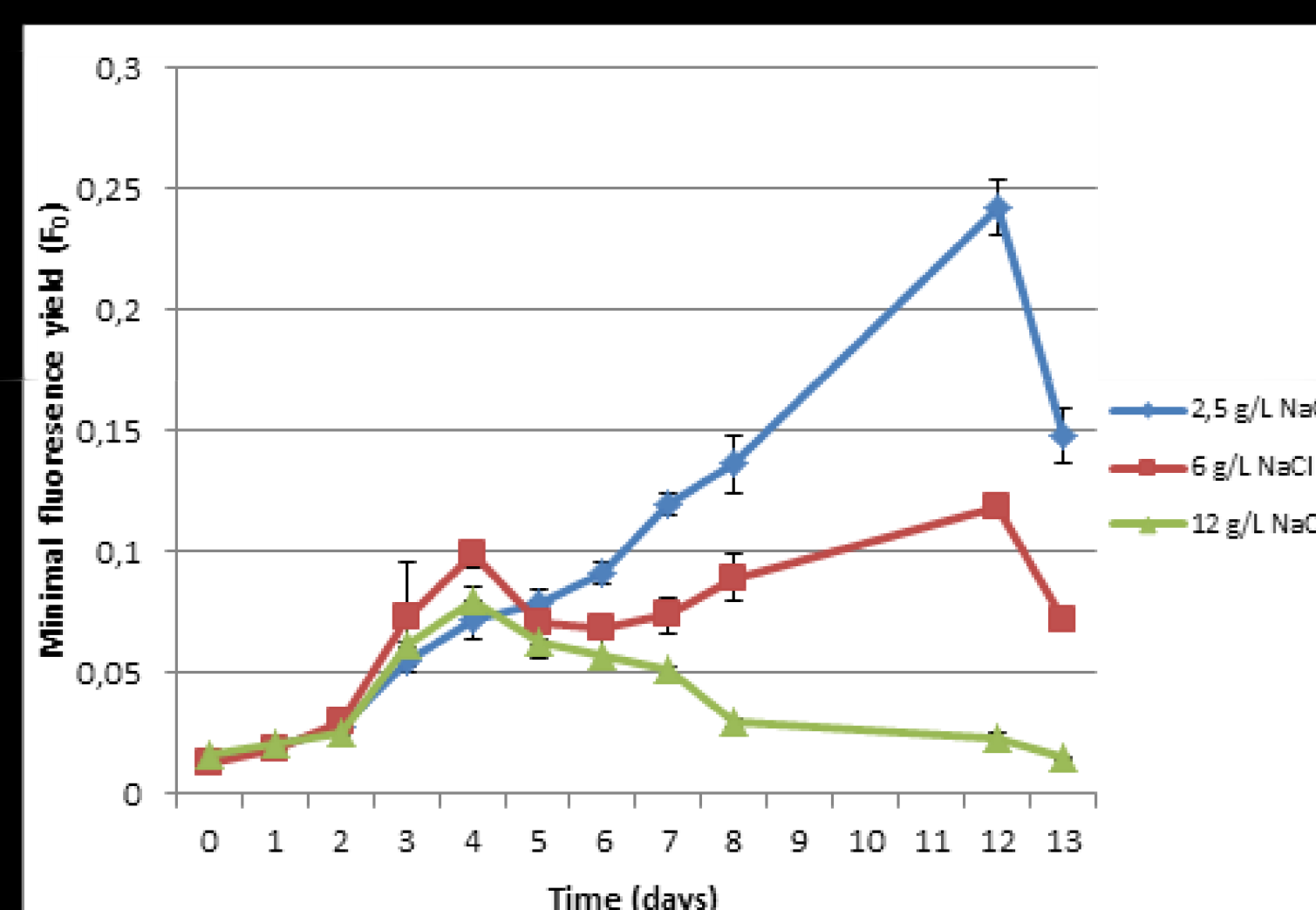
ω 3 FA, health

2. *Haematococcus pluvialis*

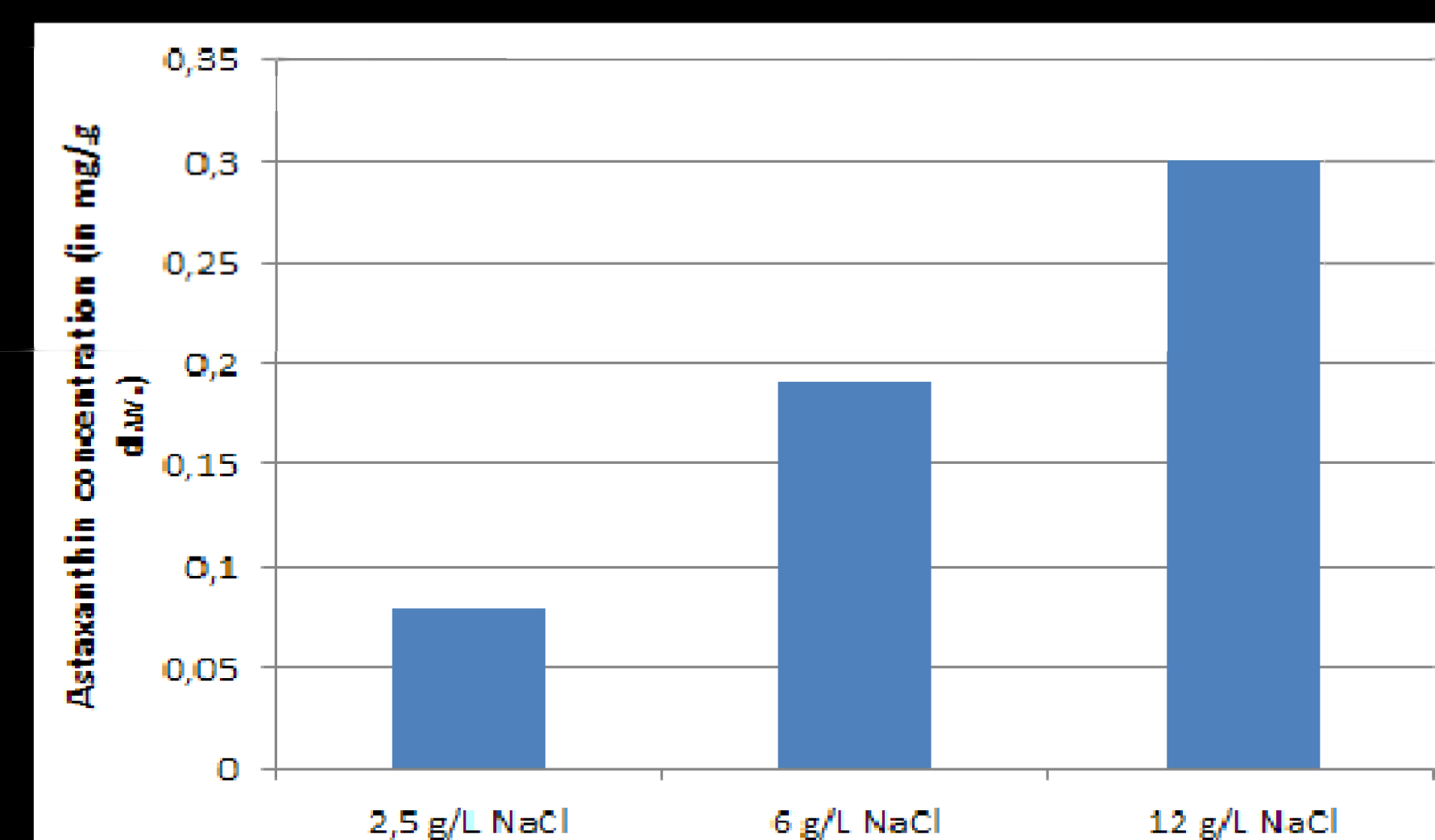
Effect of salinity



Growth:



Astaxanthin production:



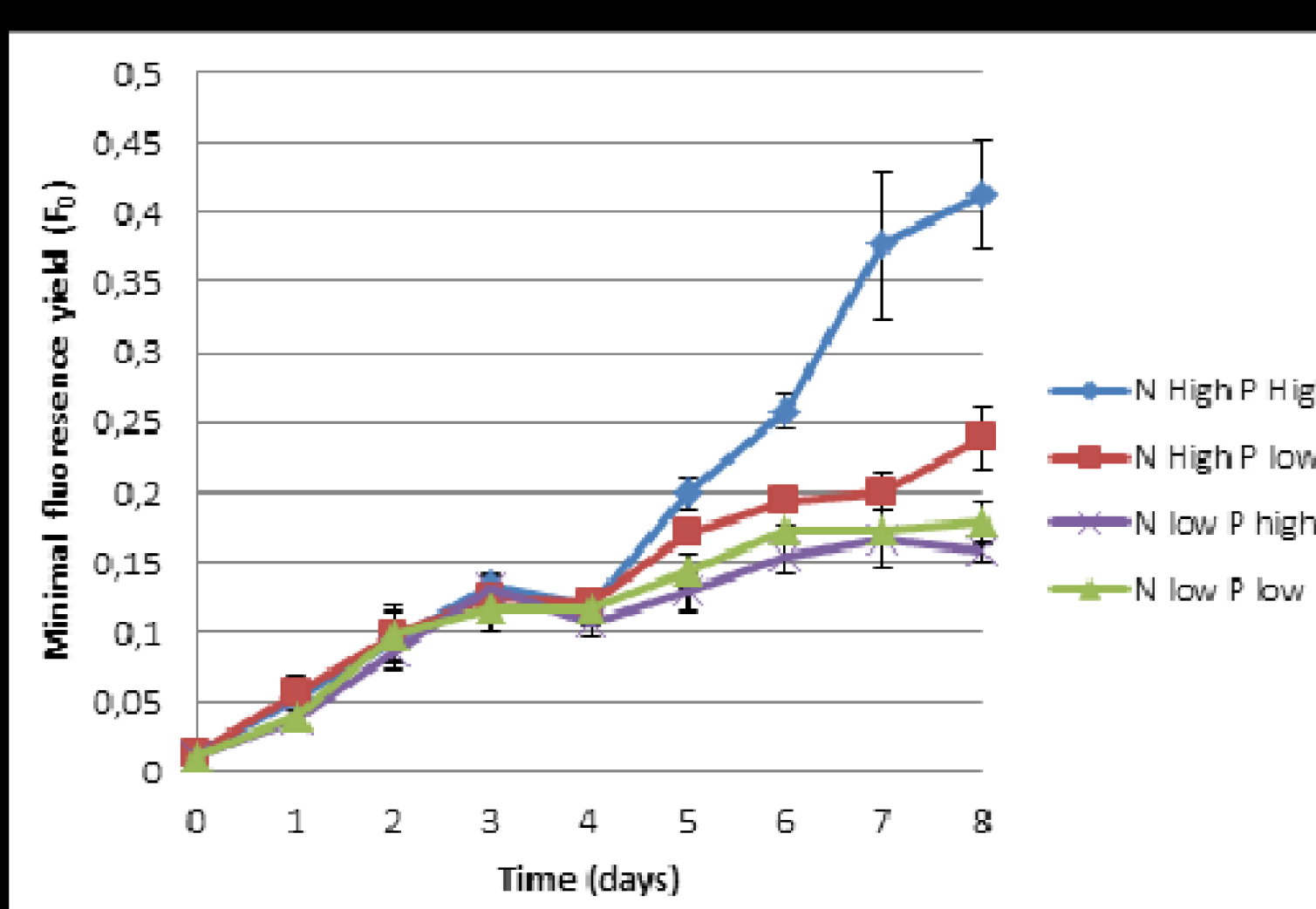
Antioxidant
Natural pigment

3. *Cylindrotheca closterium*

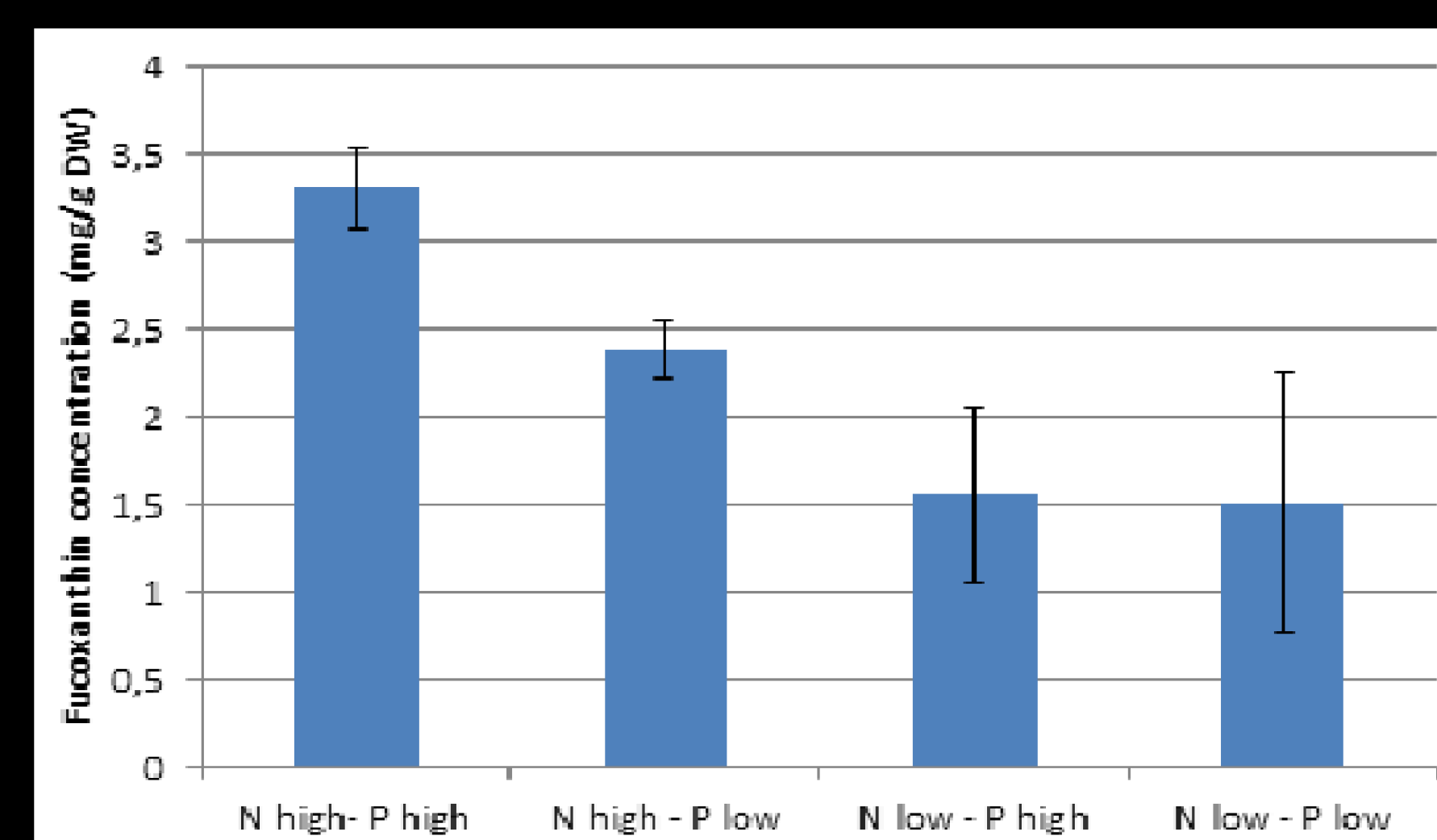
Effect of nitrate and phosphate



Growth:



Fucoxanthin production:



Anti-obesity
Anti-diabetic
Natural pigment