

Figure S1: Semi-quantitative analysis of starch content with iodine staining using ImageJ. A darkness index (grey level per cell area) was used to assess the starch content of the algal cells displayed in Figure 2a. Three stained cells in each treatment were randomly selected for analysis. The different letters above the bars represented significant differences ($p < 0.1$) between treatments.

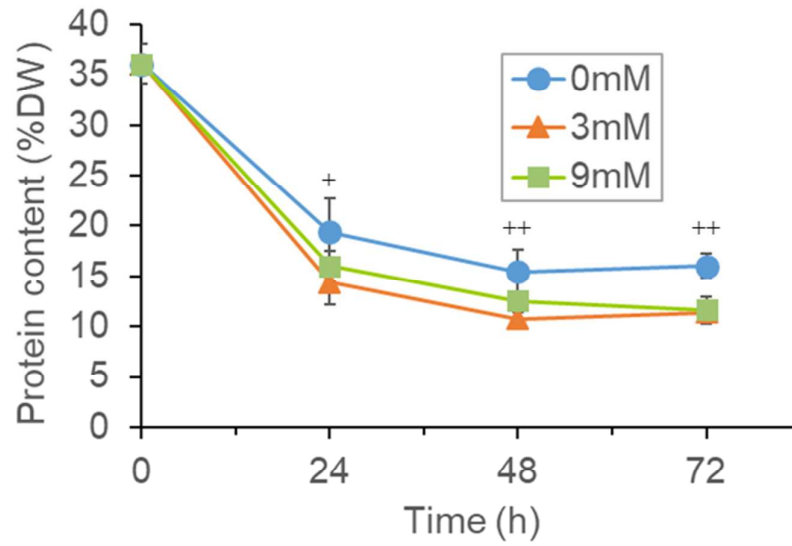


Figure S2: Protein degradation in *Tetraselmis subcordiformis* under different phosphorus availability conditions (means \pm SD, n=3). “+” denoted the significant difference ($p<0.1$) observed only between cultures of 3 mM and 0 mM; “++” denoted the significant differences ($p<0.1$) observed between cultures of 3 mM and 0 mM as well as 9 mM and 0 mM.

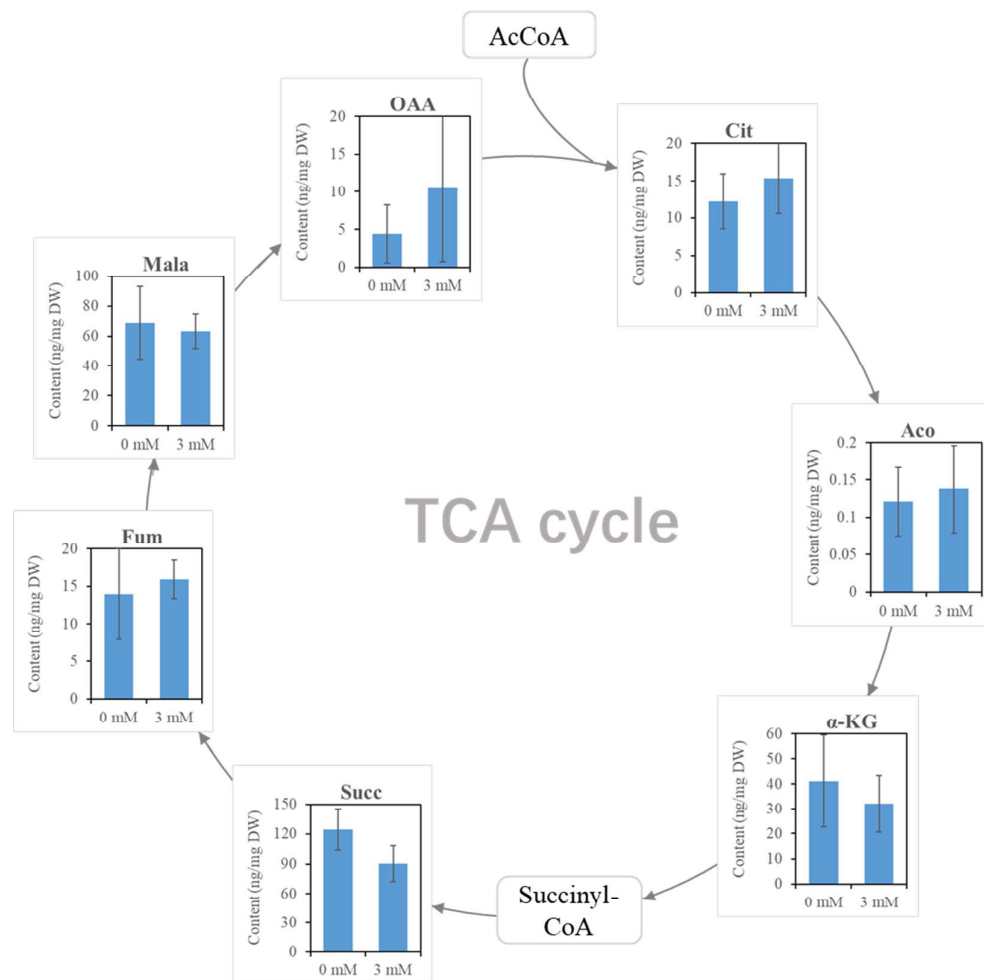


Figure S3: Analysis of metabolites involved in TCA cycle in the algal cells cultivated under phosphorus-deprived (0 mM) and replete (3 mM) conditions in the context of nitrogen starvation (means \pm SD, n=3). AcCoA, Acetyl CoA; Cit, Citrate; Aco, *cis*-Aconitate; α -KG, α -Ketoglutarate; Succ, Succinate; Fum, Fumarate; Mala, *L*-Malate; OAA, Oxaloacetate.