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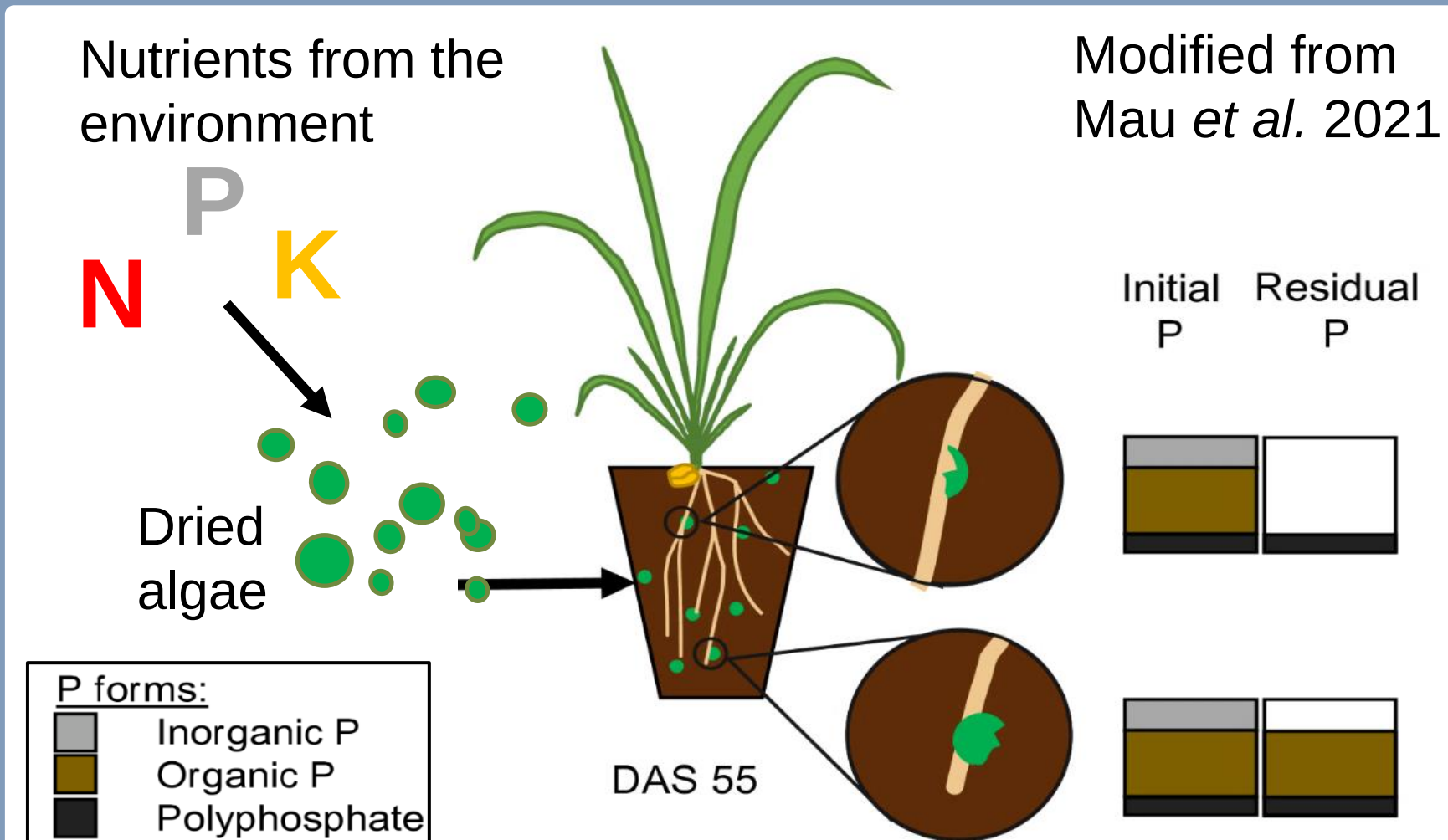
Phenotypic response of wheat roots to fertilization with algal biomass

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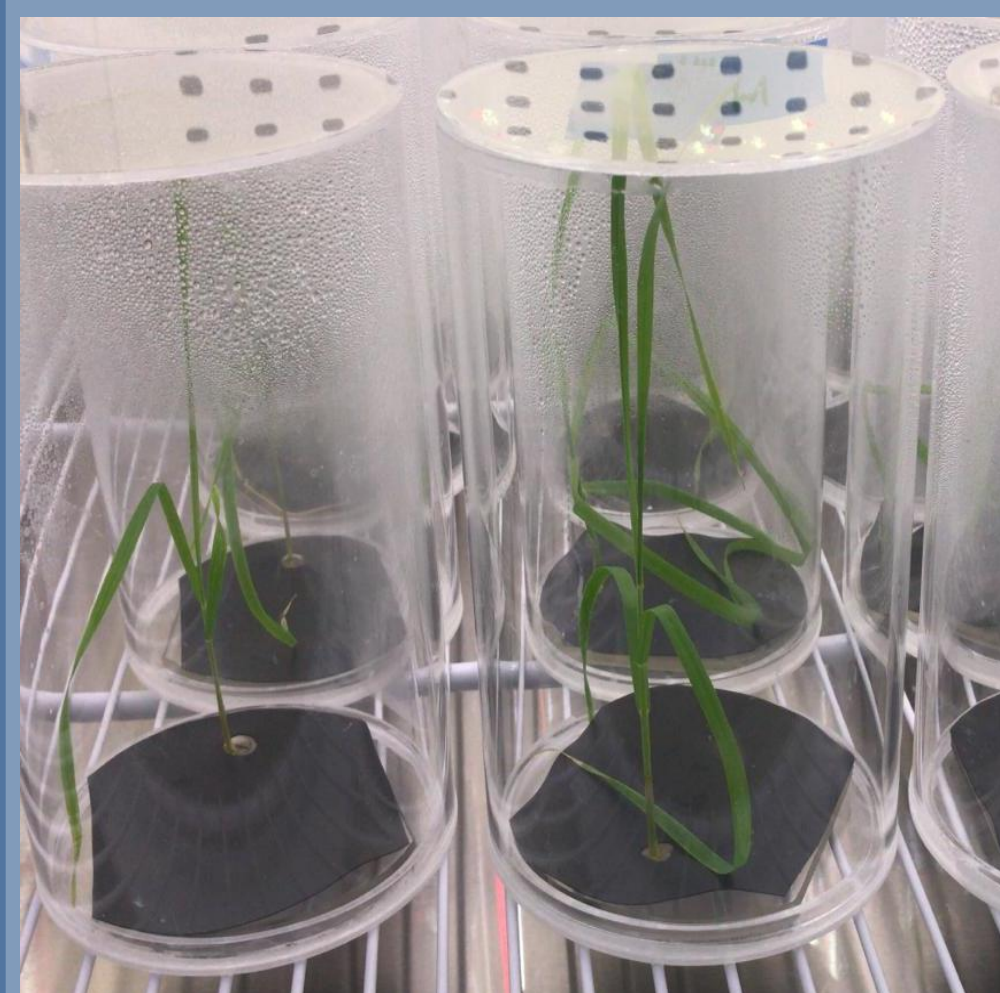
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Background: Algal P can be accessed in soils



Method: But how does it work in a soil-free system?

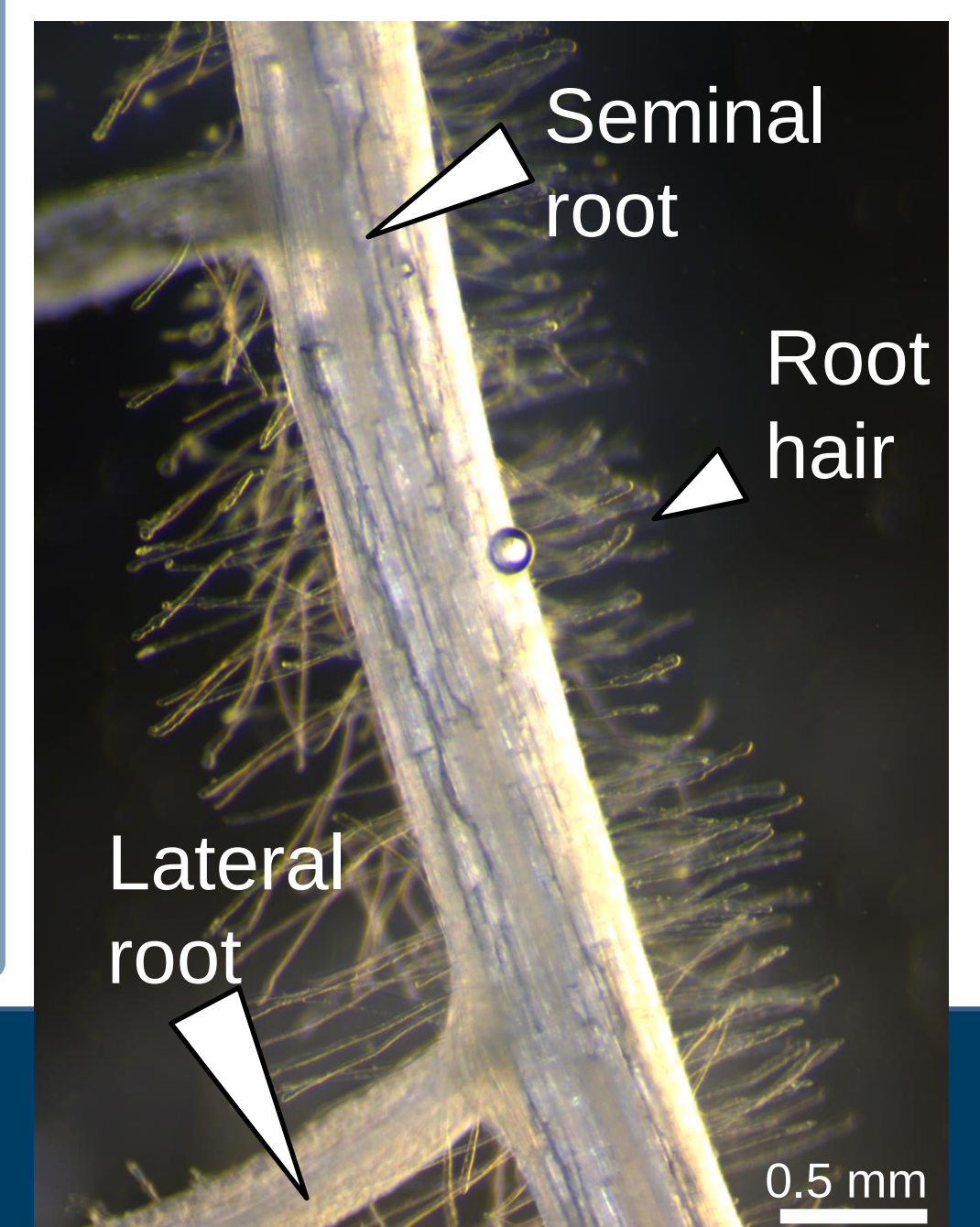
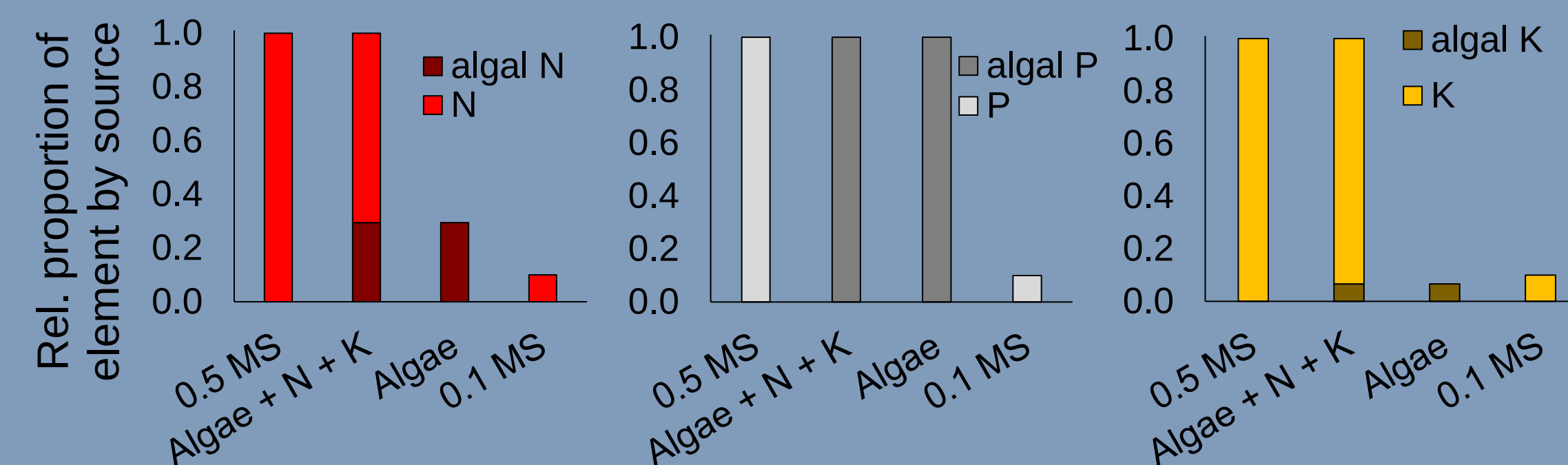


Wheat in EcoFAB, modified from (Gao et al. 2018)

Single wheat plants grown in EcoFABs for 21 days-after transfer to EcoFABs. Complete nutrient media was exchanged every seven days.

Treatments:

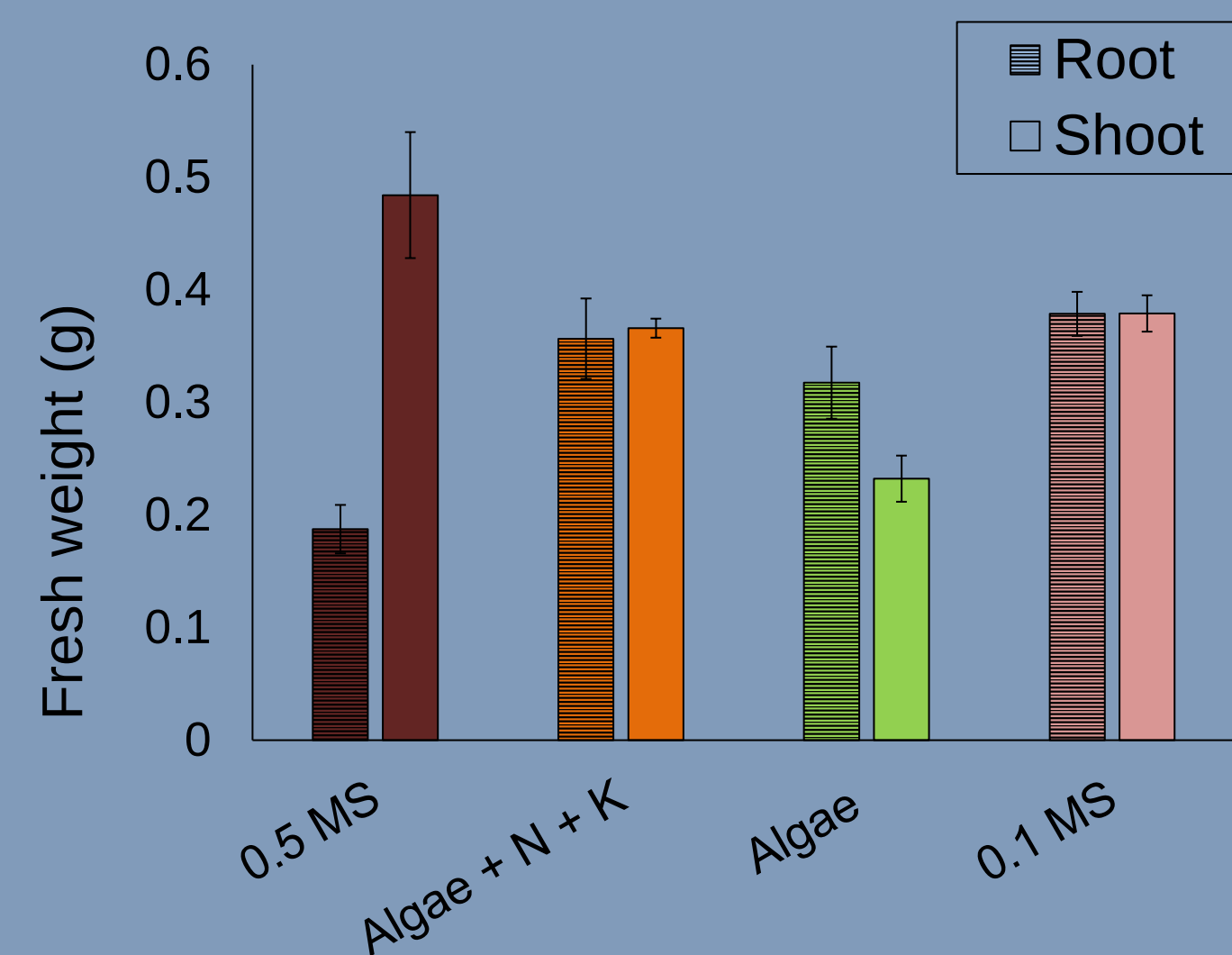
Plants are fertilized with either mineral fertilizer (MS medium) or organic fertilizer (algae biomass, *C. vulgaris*) or a combination following this treatments:



Seminal root of wheat grown in EcoFAB on algae, 21 days-after-transfer, stereomicroscope image.

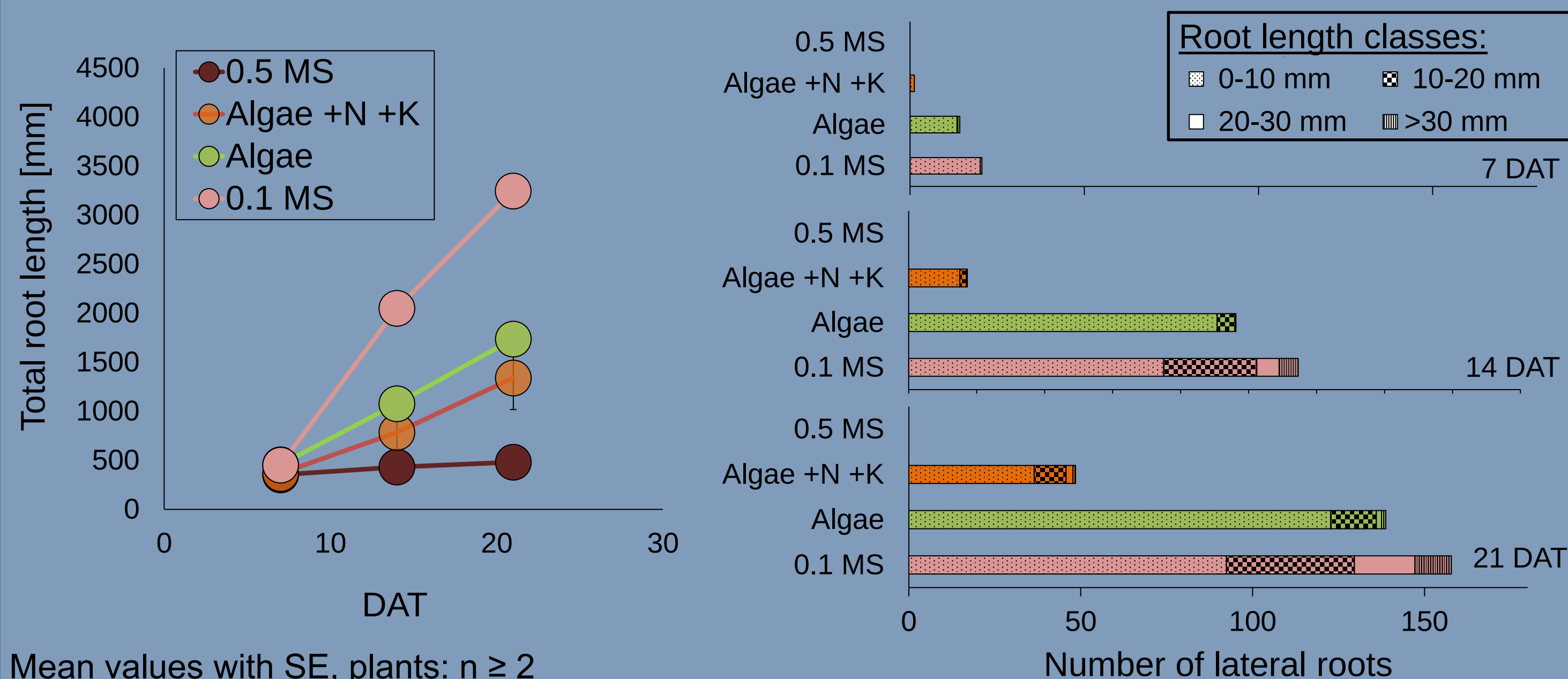
Wheat plants supplied with algal biomass grow roots that indicate moderate nutrient deficiency, but their root hairs resemble plants with sufficient nutrient supply.

Biomass allocation to roots and shoots

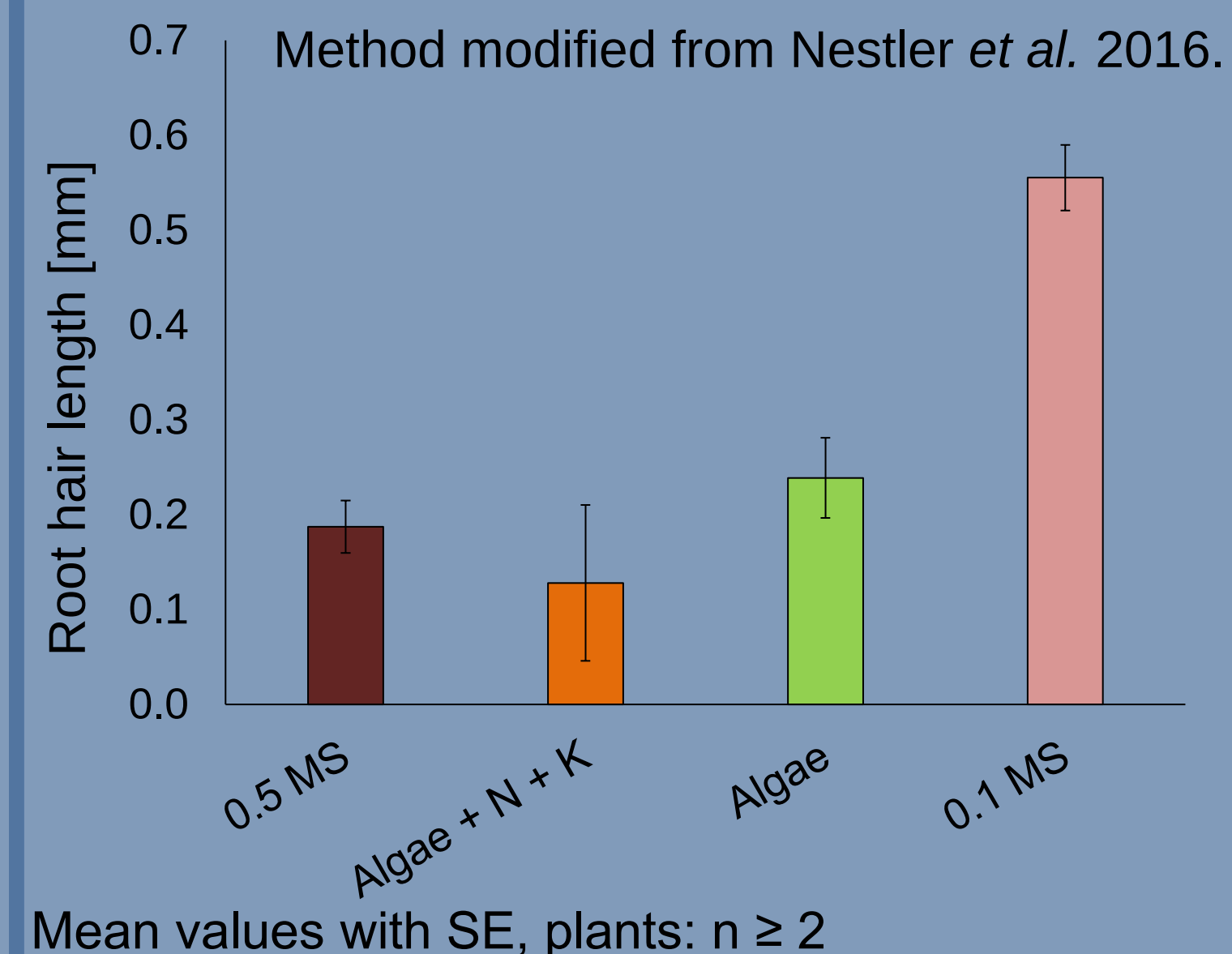


Mean values with SE, plants: $n \geq 2$

Contrasting root system development over time



Root hairs on the main roots



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