

# Productivity of Kapia Pepper and Successive Leafy Greens in an Organic Cropping System Under Different Nutrient Management Strategies with *Chlorella vulgaris* Foliar Application

Orsolya Papp, Nuri Nurlaila Setiawan, Katalin Allacherné Szépkuthy, Flóra Pászti-Milibák, Attila Ombódi, Ilona Kaponyás, Ferenc Tóth and Dóra Drexler

## Supplementary Material

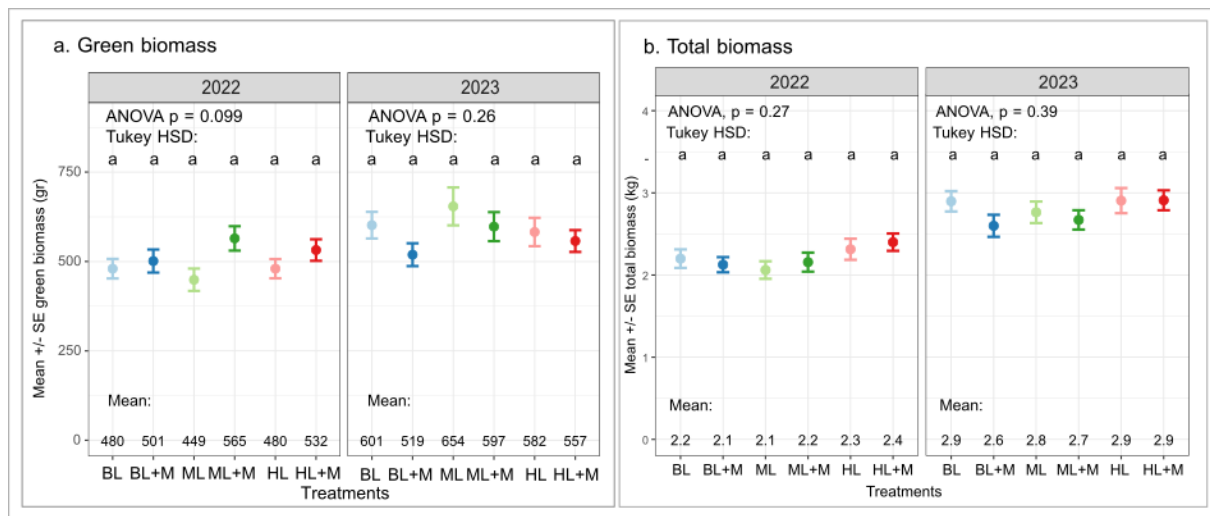


Figure S1. Mean of green (a) and total (b) biomass in all treatments and statistical differences of all treatments applied in kapia pepper crop in 2022-2023. The treatments were a combination of three different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga). The treatment effect was calculated using ANOVA p-values followed by post-hoc Tukey HSD.

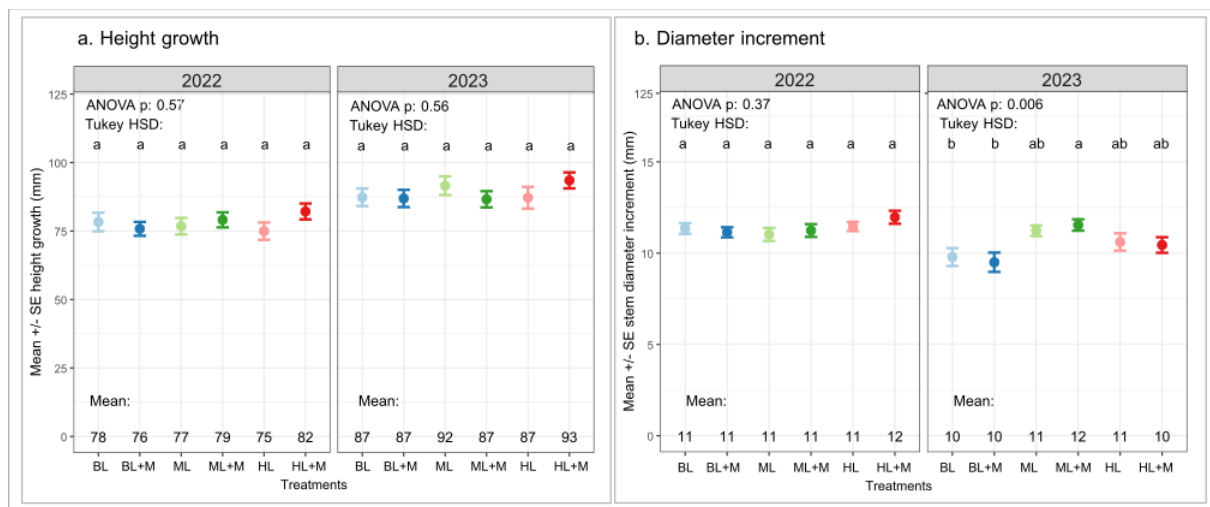
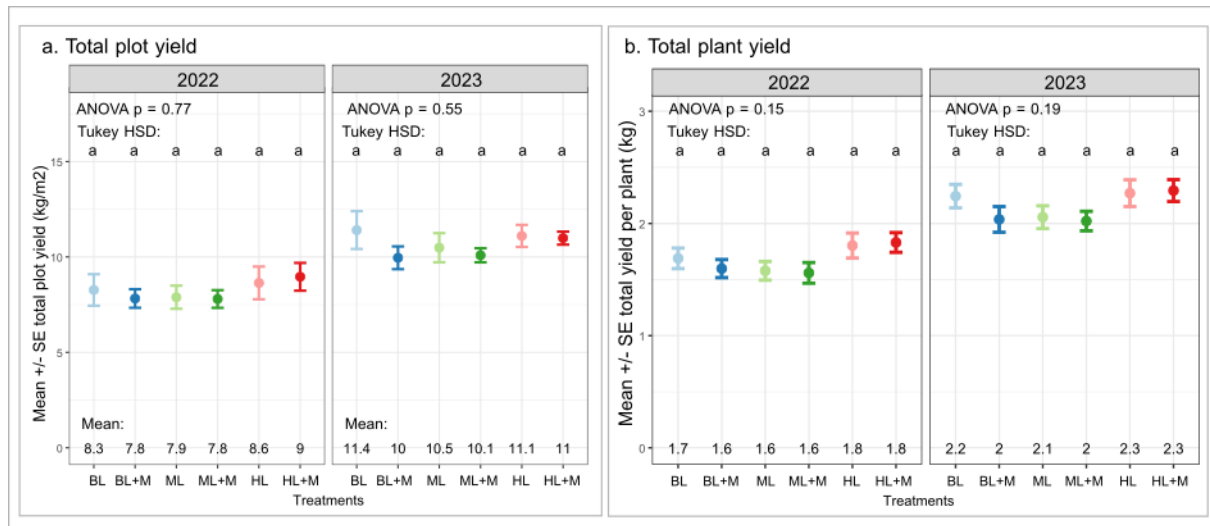
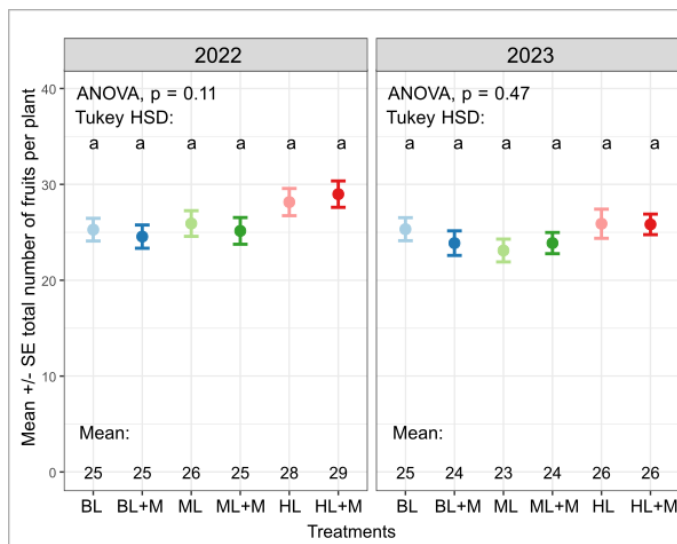


Figure S2. Mean of height growth (a) and stem diameter increment (b) of kapia plant in six treatments and statistical differences of all treatments applied in kapia pepper crop in 2022-2023. The treatments were a combination of three

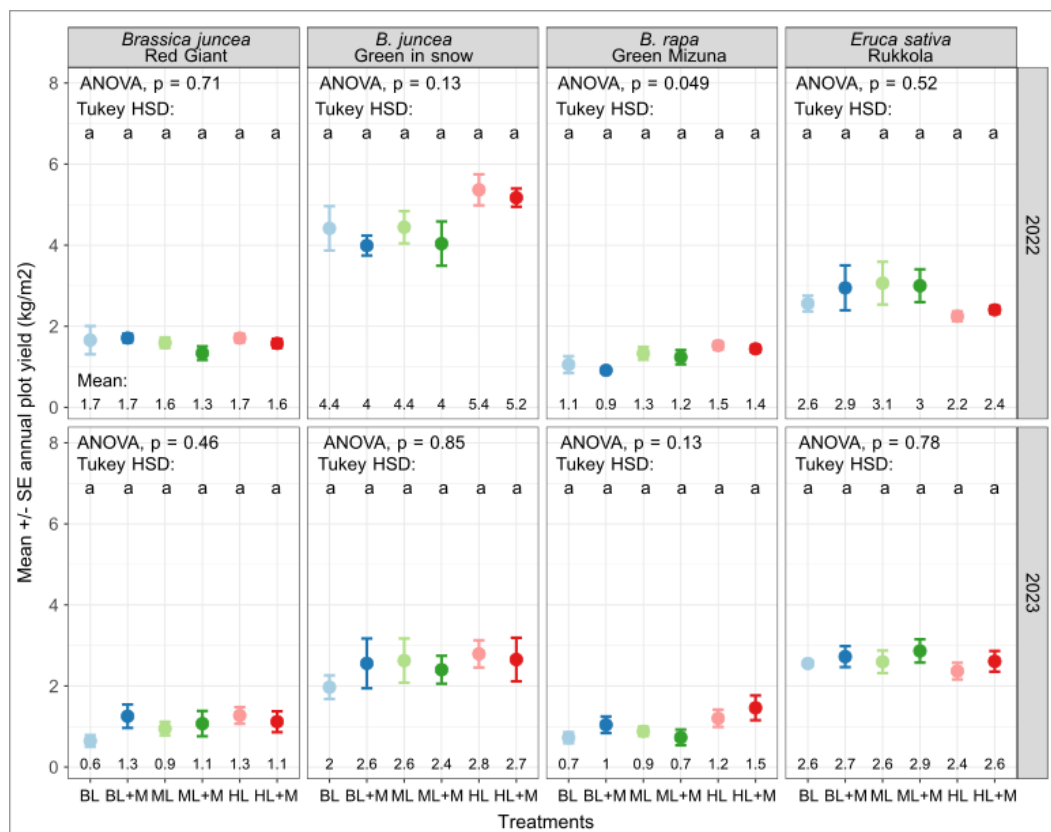
different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga). The treatment effect was calculated using ANOVA p-values followed by post-hoc Tukey HSD.



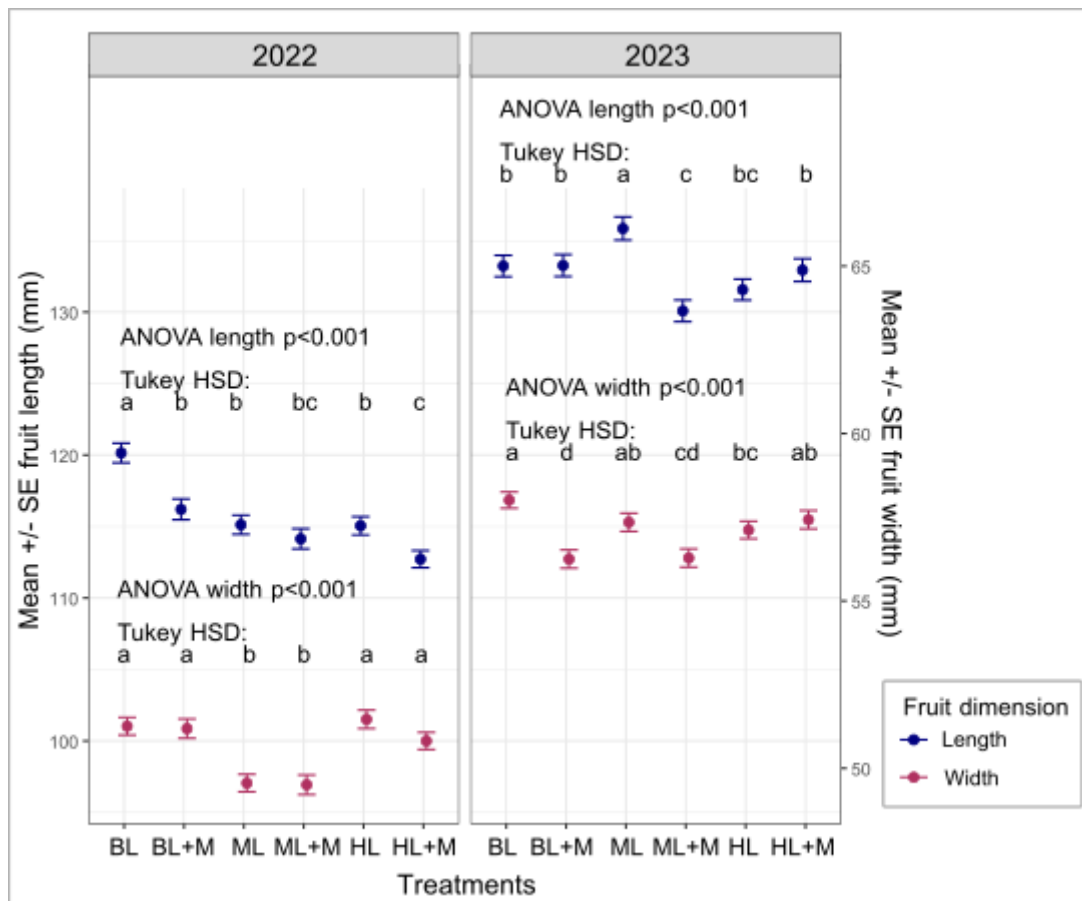
**Figure S3.** Mean of kapia pepper fruit yield (kg/m<sup>2</sup>) at (a) plot level and (b) plant level and statistical differences in all treatments applied in 2022-2023. The treatments were a combination of three different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga). The treatment effect was calculated using ANOVA p-values followed by post-hoc Tukey HSD.



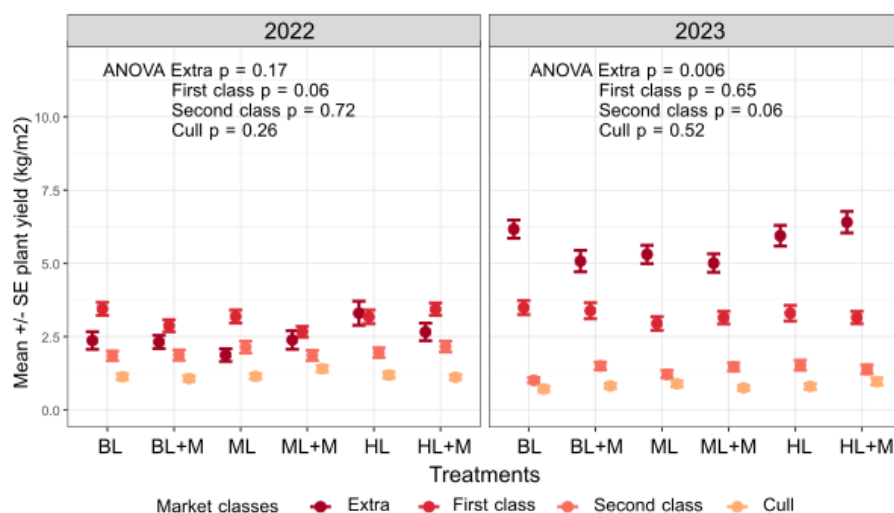
**Figure S4.** Mean of number of fruits produced per plant in all treatments and statistical differences among treatments in kapia pepper crop in 2022-2023. The treatments were a combination of three different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga).



**Figure S5.** Mean of plot yield (kg/m<sup>2</sup>) of four leafy greens and statistical differences in all treatments applied in 2022-2023. The treatments were a combination of three different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga). The treatment effect was calculated using ANOVA p-values followed by post-hoc Tukey HSD.

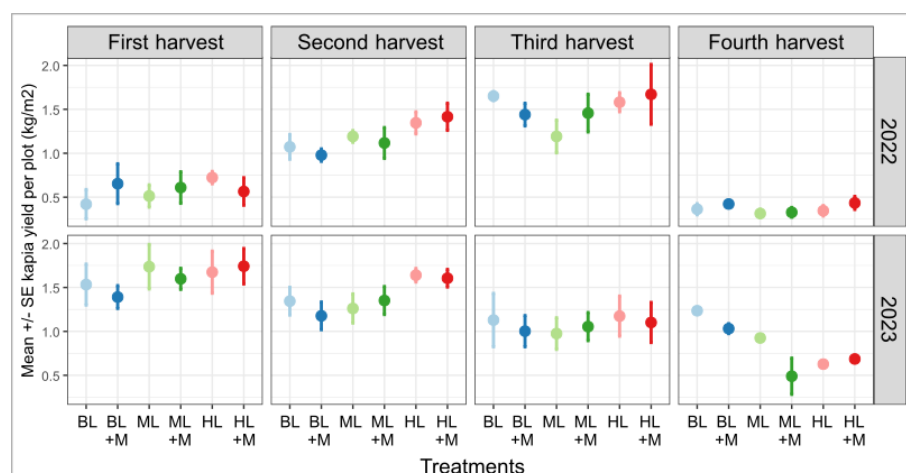


**Figure S6.** Mean of fruit length and width in all treatments and statistical differences among treatments in kapia pepper crop in 2022-2023. The treatments were a combination of three different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga).

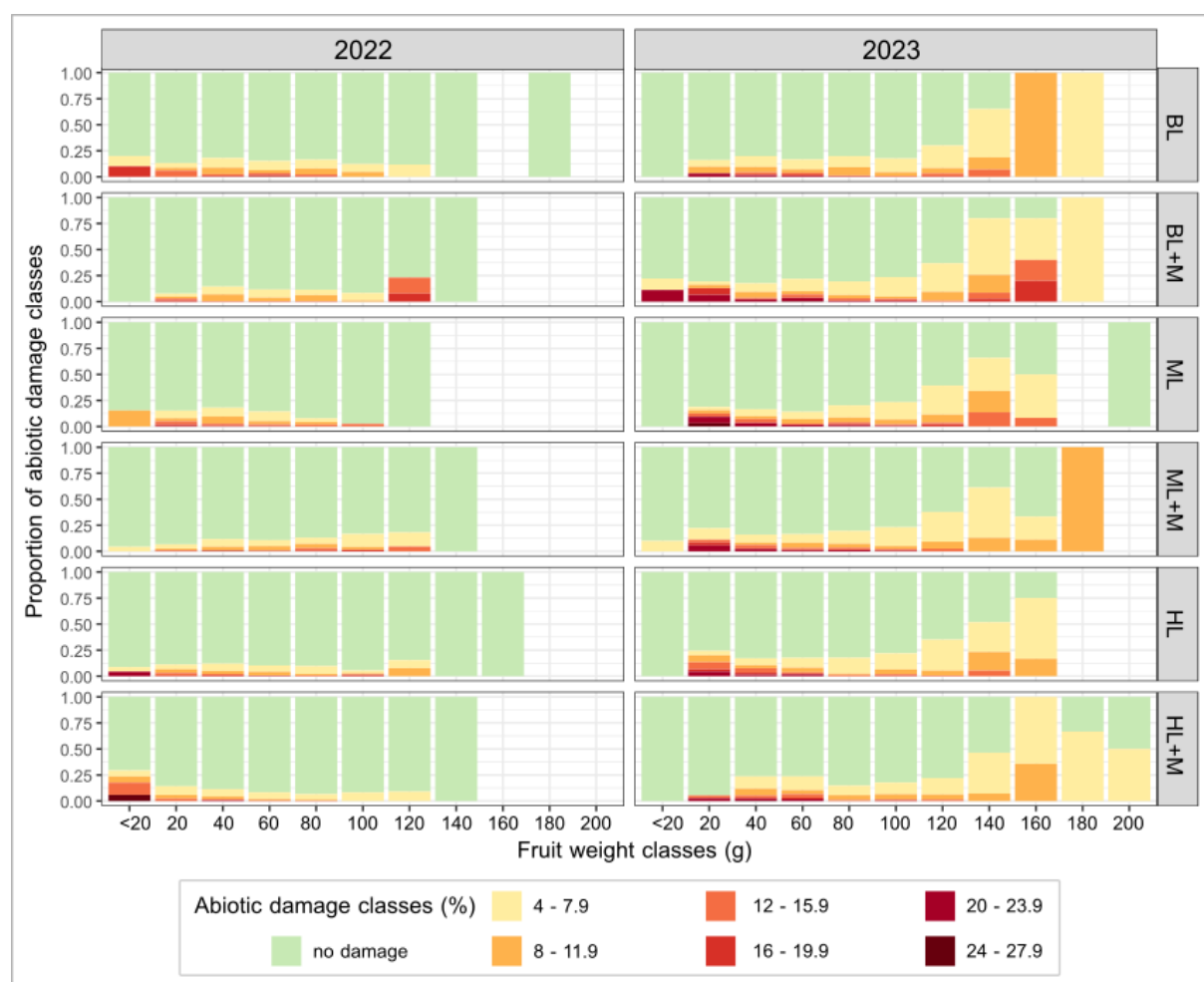


**Figure S7.** Kapia fruit market classes share in terms of plant yield in all treatments and statistical differences of treatments applied in 2022-2023. The classification of fruits to market classes was based on the width and length of fruits, i.e., extra: width  $> 6$  cm, length  $> 10$  cm, first class: width 5-6 cm, length 8-10 cm, second class: width 4-5 cm, length 7-8 cm, cull: width  $< 4$  cm, length  $< 7$  cm. The treatments were a combination of three different technologies

(BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga). The treatment effect was calculated using ANOVA p-values.



**Figure S8.** Kapia yield per plot at the first four harvest days of all treatments applied in 2022-2023. The treatments were a combination of three different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga).



**Figure S9.** Distribution of abiotic damage classes for different kapia pepper fruit size categories in each treatments applied in 2022-2023. The treatments were a combination of three different technologies (BL – Basic Level, ML – Mid-Level, and HL – High-Level) and application of microbial product (M – Microalga).