

Table S1. Weekly fertilizer supply of different fertilizer levels

Weeks after transplanting	F0.5 (N-P-K; kg ha⁻¹)	F1 (N-P-K; kg ha⁻¹)	F2 (N-P-K; kg ha⁻¹)
3–4	3-2-2	6-4-5	12-8-9
5–12	6.5-5-5	13-9-11	26-18-21
13–21	6-4-5	12-8-9	24-16-19
Total	82-57-65	164-114-131	328-228-262

Table S2. Cucumber yield and Partial Factor Productivity (PFP)

Low-nutrient soil	Fertilizer supply (kg ha⁻¹)	Yield[†] (kg ha⁻¹)	PFP[‡] (kg kg⁻¹)
F0	0	100,600	-
F0.5	205	104,500	510
F1	409	98,100	240
F2	819	103,700	127

High-nutrient soil	Fertilizer supply (kg ha⁻¹)	Yield[†] (kg ha⁻¹)	PFP[‡] (kg kg⁻¹)
F0	0	119,000	-
F0.5	205	122,000	596
F1	409	119,000	291
F2	819	122,000	149

[†]There was no statistical difference in the yield by the different fertilizer supply from F0.5 to F2 (ANOVA test, *p*-value > 0.05).

[‡]PFP (Partial Factor Productivity) = Yield/Fertilizer supply (N+P+K).