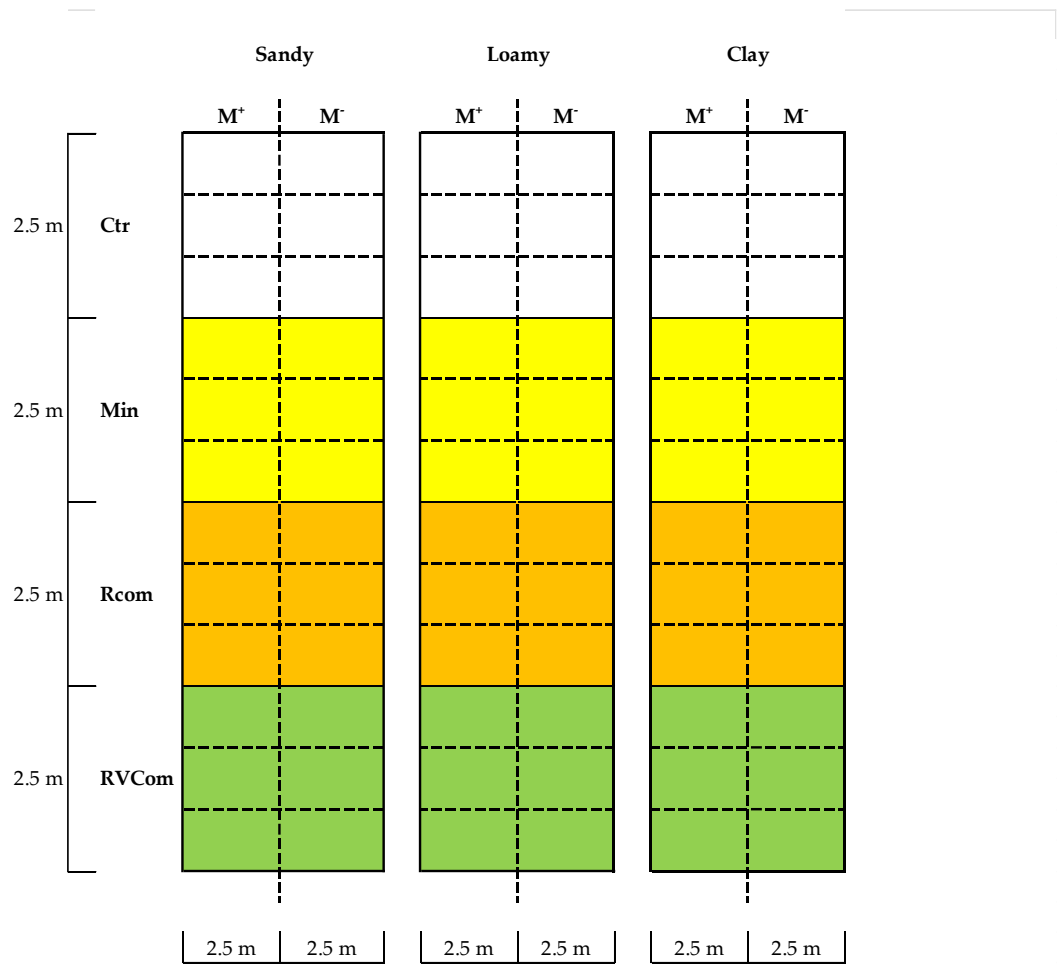


Figure S1. Schematic representation of the experimental layout with the spatial distribution of treatments in a split-split plot design.



Soil texture (Sandy, Loamy, Clay) represents the main plot factor (solid borders). Within each soil type, fertilization strategy defines the subplots, color-coded as follows: white = Ctr (no fertilization control), yellow = Min (mineral fertilization control), orange = RCom (residual fertility from compost), and green = RVCom (residual fertility from vermicompost). Each subplot includes three horizontal replicates of the same fertilization treatment (separated by dashed horizontal lines) and is further divided vertically into two microbial inoculation treatments (M⁺ = with microbial biofertilizer, M⁻ = without; separated by dashed vertical lines). Each experimental unit measures 0.83 × 2.5 m.

Table S1. Summary of statistical significance for key factors and interactions from ANOVA analysis.

	Main factors			Interactions			
	Soil texture	Fertilization	M	Soil texture x Fertilization	Soil texture x M	Fertilization x M	Soil texture x Fertilization x M
Biomass yield	***	***	***	***	*	***	***
Leaf weight	NS	***	***	***	**	***	*
Culm weight	*	**	*	***	NS	***	NS
Cob weight	NS	***	***	***	NS	***	NS
SPAD index	**	***	***	***	NS	NS	NS
Total chlorophylls	***	***	***	***	*	***	***
Anthocyanins	**	NS	***	NS	NS	NS	**
Flavanols	*	**	NS	**	NS	***	**
N index	***	***	***	NS	NS	*	NS
CP	NS	***	***	**	*	NS	NS
EE	NS	**	NS	NS	NS	NS	NS
Ash	NS	NS	NS	NS	NS	NS	NS
NDF	NS	***	***	**	NS	NS	*
ADF	***	***	***	**	**	NS	NS
ADL	***	***	NS	NS	NS	NS	NS
Starch	*	***	NS	*	NS	NS	NS
IVDT	NS	NS	NS	NS	NS	NS	NS
IVNDFD	NS	NS	NS	NS	NS	NS	NS

M, microbial biofertilizers; CP, crude protein; EE, ether extract; NDF, NDF, neutral detergent fiber; ADF, acid detergent fiber; ADL, acid detergent lignin; IVDT in vitro digestibility of DM; IVNDFD, in vitro digestibility of NDF; NS, not significant.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$