

Fig. SM1. pH and EC content of planting media made with pine bark compost incorporated with RP cow and pig manure vermicompost. Error bars represent standard deviations.

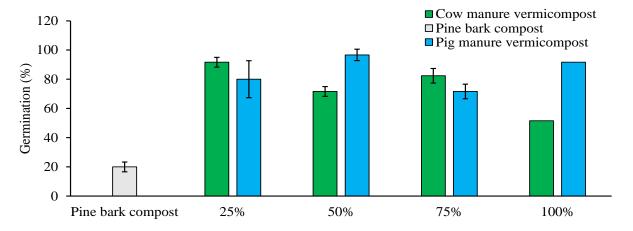


Fig. SM2. Germination percentage of Swiss chard seedlings grown in the planting media made with pine bark compost incorporated with RP cow manure and pig manure vermicompost. Error bars represent standard deviations.

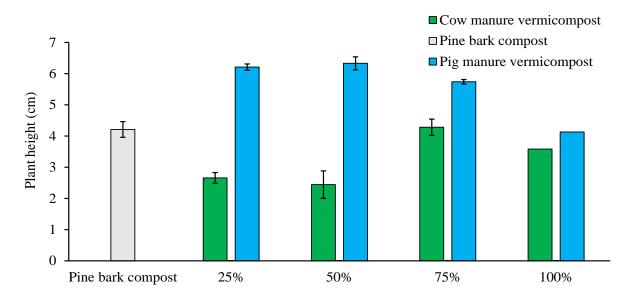


Fig. SM3. Plant height of Swiss chard seedlings grown in the planting media made with pine bark compost incorporated with RP amended cow and pig manure vermicompost at week 4 after germination. Error bars represent standard deviations.

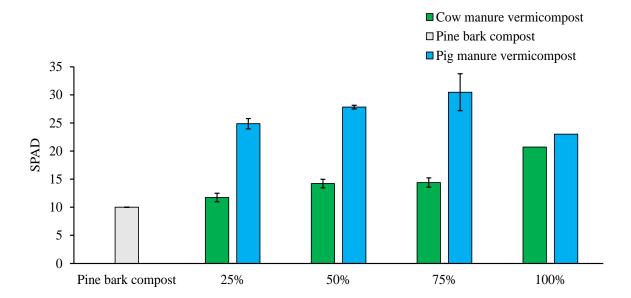


Fig. SM4. Chlorophyll content measured in SPAD units of Swiss chard seedlings grown in the planting media made with pine bark compost substituted with different levels of cow and pig manure vermicompost at week 4 after germination. Error bars represent standard deviations.

Table SM1: Analysis of variance for the various parameters measured during the seedling stage after substitution of pine bark with varying levels of cow or pig manure vermicompost.

Source Variation	pН	EC (mS/cm)	Germination (%)	Plant height (cm)	SPAD
Vermicompost type (V)	< 0.0001	< 0.0001	0.0003	< 0.0001	< 0.0001
Substitution level (S)	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
V× S	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001

Table SM2: The effect of cow and pig manure RP enriched vermicompost on fertility status of post-harvest soil of Swiss chard

	EC (mS cm-1)		Available nutrients (mg kg ⁻¹)		Exchangeable nutrients (mg kg ⁻¹)			DTPA extractable (mg kg ⁻¹)					
Treatments	pН	EC	Bray 1	NH4-N	NO ₃ -N	Ca	Mg	Na	K	Cu	Zn	Cr	Pb
Ferralsol soil	5.5a	2.2a	3.98e	73.95a	36.24ab	207.70a	7.25c	5.43a	68.94a	0.0540bcd	0.038a	0.0004a	0.1130a
25 mg P kg ⁻¹ VC	6.0a	2.0a	35.47ab	30.90d	30.28abc	1387.44c	28.14a	5.40a	46.74b	0.1071a	0.040a	0.0009a	0.0405b
50 mg P kg ⁻¹ VC	6.0a	1.7a	24.20cd	39.71bc	22.48c	231.40bc	18.51b	6.05a	70.13a	0.0775abc	0.05a	0.0007a	0.0268bcd
25 mg P kg ⁻¹ VP	6.0a	2.2a	31.50bc	32.40d	23.85c	400.43bc	18.30b	5.64a	31.90bc	0.1026ab	0.04a	0.0007a	0.0329bc
50 mg P kg ⁻¹ VP	5.5a	2.0a	41.90a	32.49d	26.61bc	196.00b	28.23a	5.40a	35.26bc	0.0331cd	0.01b	0.0006a	0.0184cde
25 mg P kg ⁻¹ RP	5.3a	2.1a	15.93d	36.13cd	22.02c	729.72c	5.96c	5.30a	27.23c	0.0200d	0.00b	0.0005a	0.0066e
50 mg P kg ⁻¹ RP	5.1a	1.9a	3.52e	44.54b	39.91a	125.30c	6.40c	5.26a	29.21c	0.0828ab	0.005b	0.0005a	0.0119de

Note*: VC= cow manure RP vermicompost, VP= pig manure vermicompost, Initial soil fertility parameters are presented in Table 1. Significantly different numbers for the same parameter are followed by different letters based on LSD ($p \le 0.05$).