

## Supplementary material

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# Phytostimulation and synergistic antipathogenic effect of *Tagetes erecta* extract in presence of rhizobacteria

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**Table S1.** Main bands in the ATR-FTIR spectra of *T. erecta* flowers and their assignments. Peak positions are expressed in cm<sup>-1</sup>

Bands dry extract (cm <sup>-1</sup> )	Bands plant material (cm <sup>-1</sup> )	Assignments
3261	3283	O-H stretch, N-H stretching
2926	2920	C-H stretching
	2853	C-H stretching
	1736	C=O stretching
	1655	Amide I, $\nu(\text{C=O})$ , random coil
	1639	Amide I, $\nu(\text{C=O})$ , $\beta$ -sheet
	1626	Amide I, $\nu(\text{C=O})$ , $\beta$ -sheet/chitin
1598		assigned to C=C stretching of the aromatic ring –syringyl and CH deformation
1562	1562	aromatic C-H stretching
	1542	Amide II, $\nu(\text{C-N})$ , $\delta(\text{N-H})$ , random coil/chitin
	1536	amide II of proteins
	1510	Aromatic skeletal vibrations
1501		C-C stretching
	1460	CH <sub>2</sub> deformation stretching in lignin
	1451	C-H bending
1441		C=C stretching, aromatics

	1439	C-O-H bending vibrations (cellulose)
	1423	CH <sub>2</sub> vibrations
1391		C-H bending vibration
	1378	CH <sub>3</sub> , CH <sub>2</sub> bend
1335		stretching and bending of C-O and C-O-H
	1324	C-O vibration in derivatives, CH in-plane bending in cellulose
1285		ethereal C-O stretching vibration
	1236	Amide III, $\nu(\text{C-N})$ , $\delta(\text{N-H})$ , random coil
1032	1032	C-OH stretching (carbohydrates)
	897	Cellulose: C1-H deformation
819		C-H out of plane bending
769		aromatic groups (C=H)
	672	C-H deformations vibration in aromatic structures



(a)



(b)



(c)

**Figure S1.** Radishes seedlings growth germination bioassay using 0.1% extract (a), solvent (b) and control (c).