

# Dwarf pomegranate (*Punica granatum* L. var. *nana*): source of 5-HMF and bioactive compounds with applications in the protection of woody crops

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## SUPPLEMENTARY MATERIALS

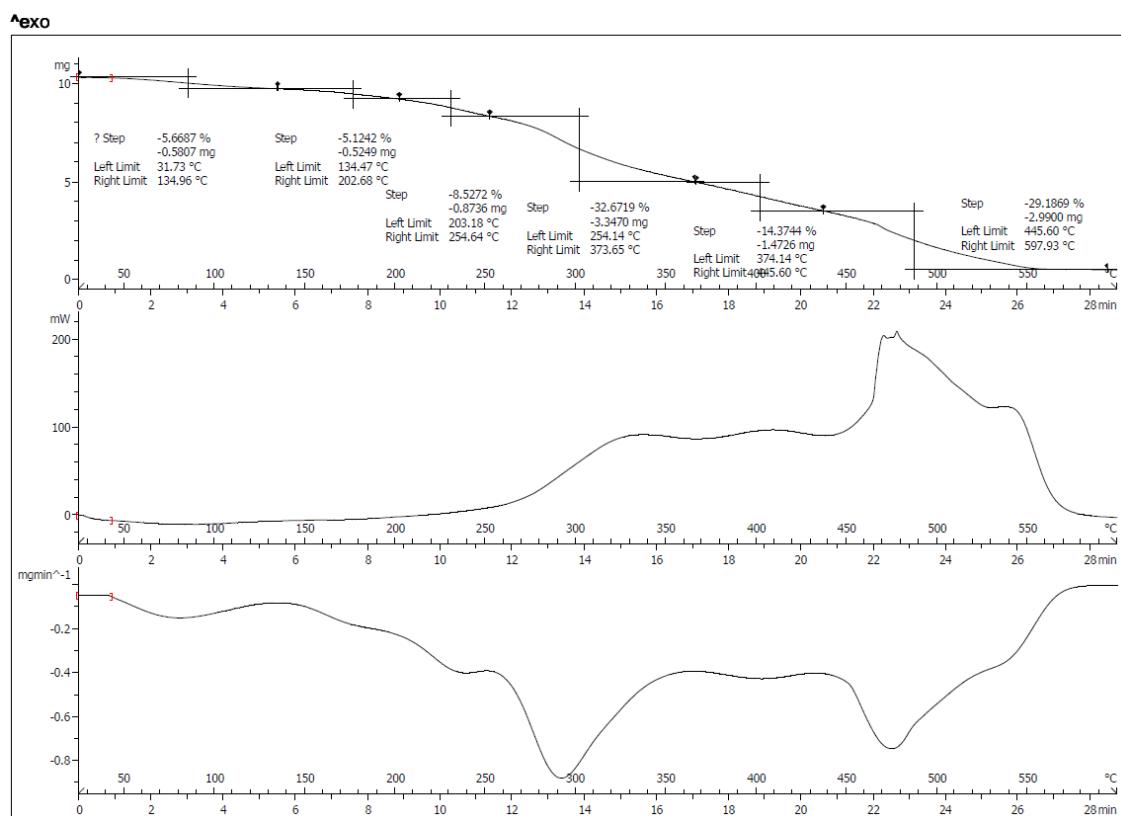


Figure S1. TG, DSC, and DTG curves for *P. granatum* var. *nana* fruits.

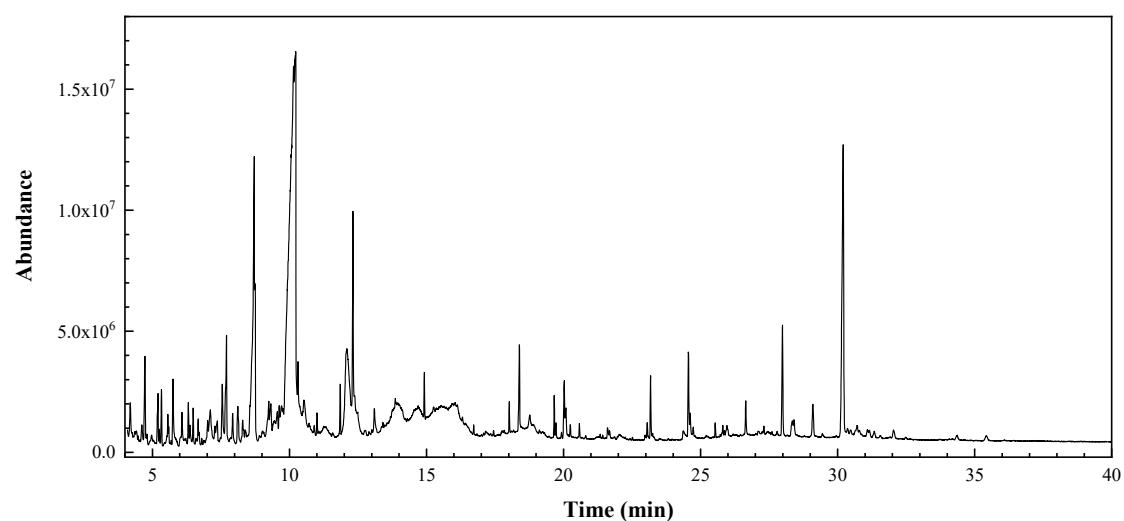
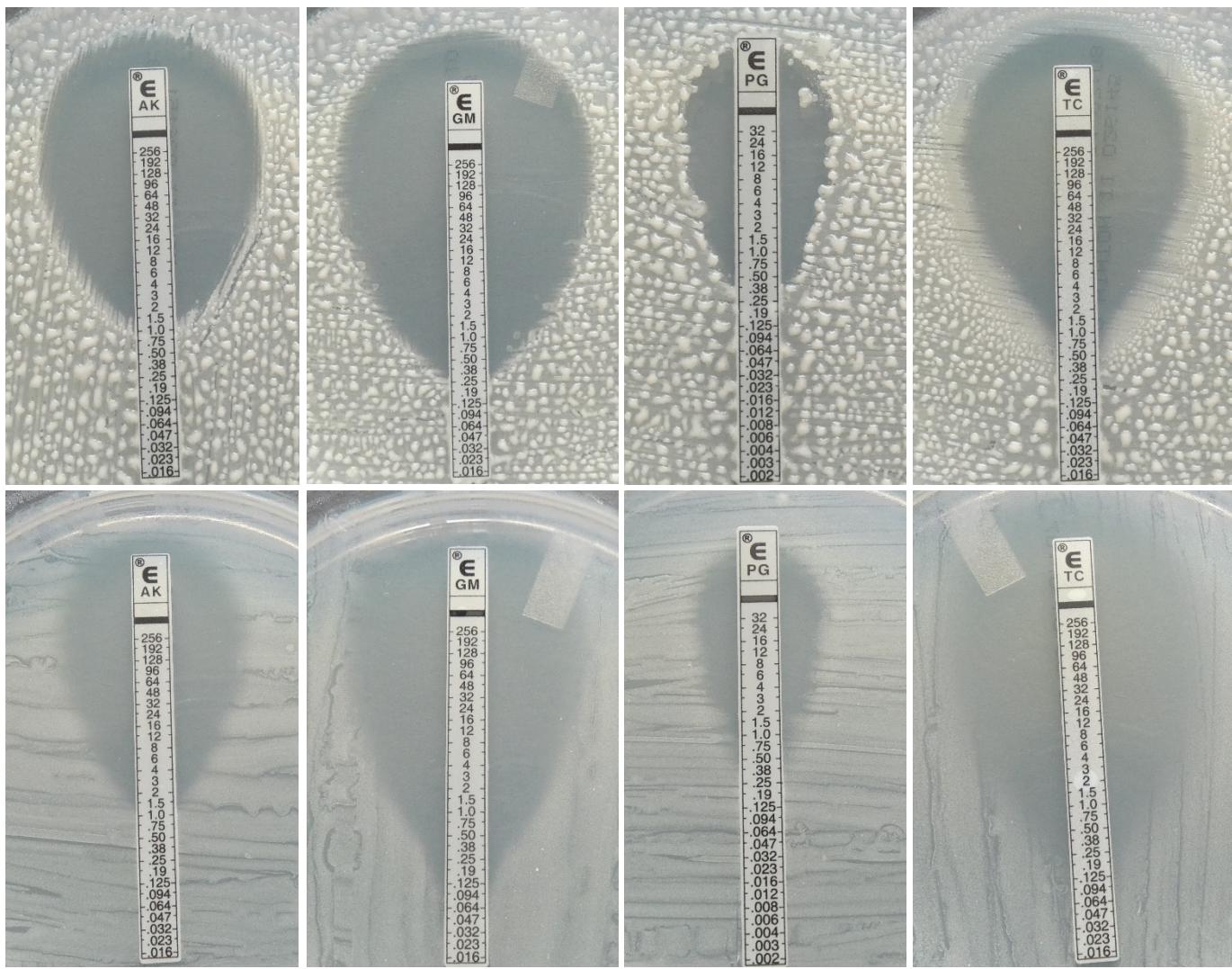


Figure S2. GC-MS chromatogram of *P. granatum* var. *nana* hydromethanolic fruit extract.

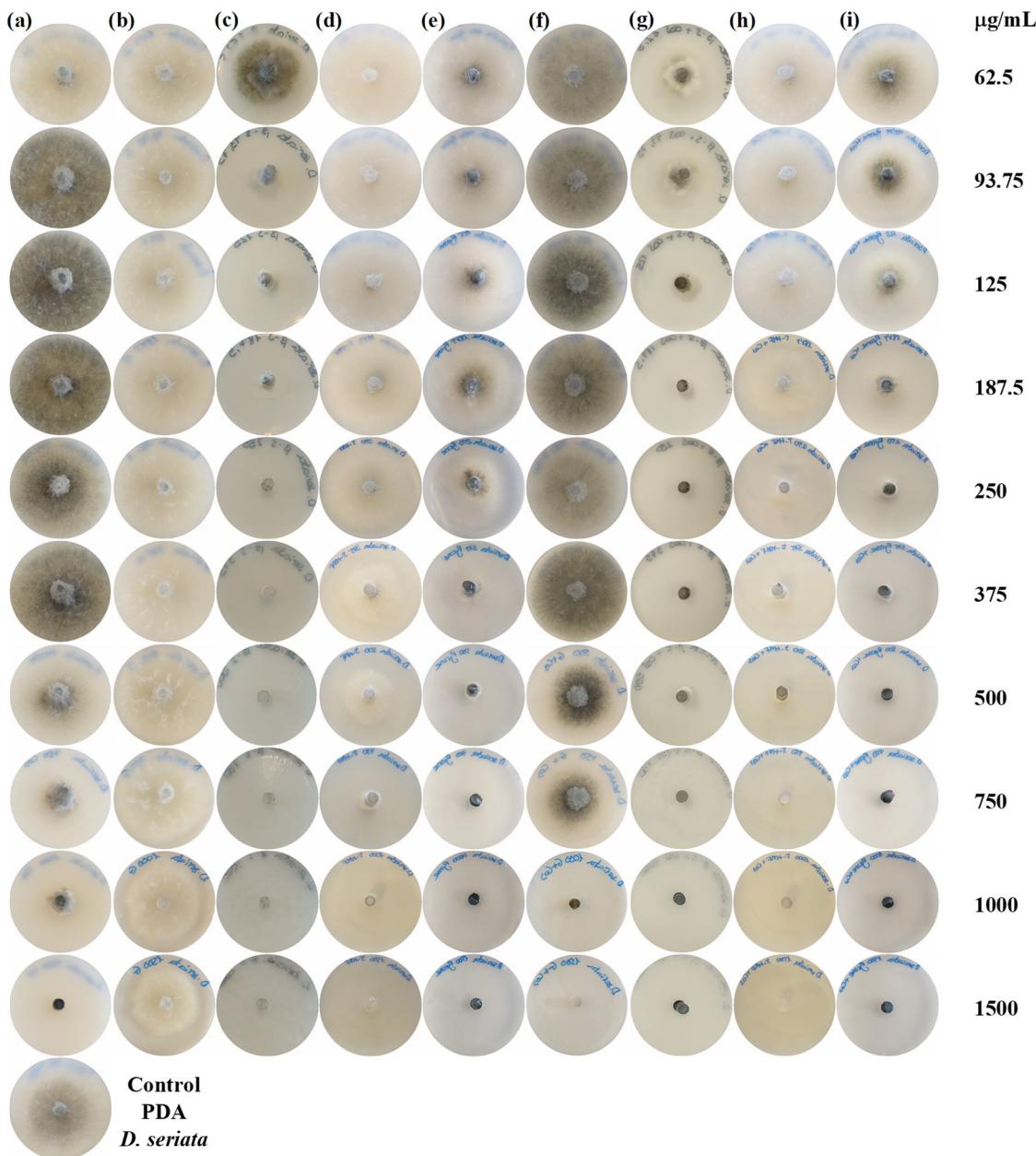


**Figure S3.** Determination of minimum inhibitory concentrations of conventional antibiotics against *Erwinia amylovora* (top row) and *Erwinia vitivora* (bottom row) using ETEST® gradient MIC strips. *From left to right:* AK = amikacin, GM = gentamicin, PG = benzylpenicillin, TC = tetracycline.

**Table S1.** Minimum inhibitory concentrations of conventional antibiotics against *Erwinia amylovora* and *E. vitivora* (expressed in  $\mu\text{g}\cdot\text{mL}^{-1}$ ).

Bacteria	AK	GM	PG	TC
<i>Erwinia amylovora</i>	1.5	0.38	0.5	1.0
<i>Erwinia vitivora</i>	1.5	0.19	2.0	0.5

AK = amikacin, GM = gentamicin, PG = benzylpenicillin, TC = tetracycline



**Figure S4.** Mycelial growth inhibition of *D. seriata* upon treatment at different concentrations with **(a)** chitosan oligomers, COS; **(b)** *P. granatum* var. *nana* fruits hydromethanolic extract; **(c)**  $\beta$ -sitosterol; **(d)** 5-HMF; **(e)** DDPM; **(f)** COS–*P. granatum* conjugate complex; **(g)** COS– $\beta$ -sitosterol conjugate complex; **(h)** COS–5-HMF conjugate complex; and **(i)** COS–DDPM conjugate complex. Only one replicate is shown. The control (PDA-only medium, without any amendments) is shown in the bottom left corner.